

MURRIETA CANYON ACADEMY PROJECT

Murrieta, California

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Prepared for:

MURRIETA VALLEY UNIFIED SCHOOL DISTRICT

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SECTION 1.0 INTRODUCTION

Murrieta Valley Unified School District (MVUSD) proposes to construct new buildings and associated infrastructure at the Murrieta Canyon Academy (MCA). MCA is an existing school campus consisting of portable structures that provides alternative high school programs including, independent study, alternative high school, and adult education. MVUSD proposes to construct a new campus with permanent single and two-story buildings and associated infrastructure and demolish the existing MCA buildings (Project). The MCA campus is approximate 5-acres in size and consists of approximately 22,500 square feet of portable buildings and associated parking. The Project proposes to construct approximately 41,500 square feet of classrooms, administration buildings, cafeteria and food service elements, and student pavilion and lunch shelter area. The improvements allow MCA to increase current enrollment capacity from 234 students to 594 students.

Currently, the campus is a closed campus with a chain link fence surrounding the site. Access to all portions of the campus is through a locked gate along the south side of the campus.

The Project is proposed to be constructed in the general location of the existing softball fields associated with Thompson Middle School, located immediately north-west of the existing MCA campus and south of the adjacent Thompson Middle School buildings. During the construction of the new buildings, the original portable structures will remain in operation. Following the completion of the new buildings, anticipated to occur during summer recess, the original portable structures and parking lot will be demolished, and the new parking and associated landscape will be constructed. Additionally, new turf fields for Thompson Middle School will be constructed to replace the fields lost during construction of the new MCA buildings.

MVUSD, as the Lead Agency, commissioned this Initial Study to determine the potential environmental impacts associated with the Project. In accordance with CEQA and the State CEQA Guidelines, the following Initial Study has been prepared to document potential environmental impacts associated with the Project and support a Mitigated Negative Declaration finding.

SECTION 2.0 PROJECT DESCRIPTION

2.1 Project Name and Description

The project is titled “The Murrieta Canyon Academy Project”, also referred to in this document as “Project.”

The proposed Project includes the construction of a new campus with approximately 41,500 square feet of classrooms and administrative offices, an associated parking lot, and other site improvements, to replace an existing campus of 22,500 square feet of portable classrooms. More specifically, the new campus will include construction of single and two-story buildings with 22 classrooms, student pavilion, library, restrooms, storage rooms, administration office, and various academic and activity courts with additional parking and landscaping. The proposed

buildings are designed as single and two-story structures. All utilities exist to the Project site. The proposed Project will increase current enrollment capacity from 234 students to 594 students.

The Project is proposed to be constructed in the general location of the existing softball fields associated with Thompson Middle School, located immediately north-west of the existing MCA campus and south of the adjacent Thompson Middle School buildings. While the construction of the new buildings occurs, the existing buildings will remain in operation. Following the completion of the new buildings, anticipated to be during summer recess from school, the original buildings and parking lot will be demolished, and the new parking and associated landscape will be constructed.

2.2 Project Location

The Project site is located at 24150 Hayes Avenue, Murrieta, California (Figure 1). The Project site is located north of Hayes and west of Fullerton Road (Figures 1 and 2). The Project Site is located within the United States Geological Survey (USGS) 7.5-Minute Topographic Map *Murrieta* Quadrangle.

The area surrounding the Project Site includes residential to the east and south; Thompson Middle School field and Thompson Middle School to the west; and Murrieta Valley High School to the north (Figure 2). The Project site is a portion of the Assessor's Parcel Number (APN) 904-050-047.

2.3 Existing Conditions

The existing MCA campus, located on the Project site, currently consists of 15 classrooms, and administrative offices within approximately 22,500 square feet of portable buildings. The project site also has hard courts, parking lots, and landscaping. An aerial of the approximately 5-acre Project site is shown in Figure 2. The southeastern portion of the Project site consists of hardscape associated with the existing MCA buildings, courtyards, and a parking lot. The northwestern portion of the Project site consists of manicure baseball fields, currently used by Thompson Middle School. The existing vegetation on the Project site is limited and includes ornamental species in landscaped areas. The Project site is relatively flat and slopes gently to the southeast, however contains no significant topographical constraints.

The existing MCA campus is a closed campus with a chain link fence surrounding the site. Access to all portions is via a locked gate along the south side of the campus. The current operations occur Monday through Friday 8:00 am to 3:00 pm. On select days, evening classes occur between the hours of 4:00 pm to 9:00 pm.

2.4 Existing General Plan and Zoning

Both the existing General Plan Land Use Designation and Zoning is Civic/Institutional. No change of Land Use Designation or change in Zoning is requested.

2.5 Project Purpose and Benefits

The purpose of the MCA Project is to create an expanded educational center with permanent structures to serve an increased number of students and provide additional opportunities for learning within the MVUSD for independent study, alternative high school, and adult education.

2.6 Construction and Phasing

Grading and construction will occur in a single phase. Site preparation includes the removal of existing turf associated with Thompson Middle School fields. Over-excavation and recompaction of approximately 2 to 5 feet below existing ground surface is necessary to create suitable building pads. The Project site is relatively flat and only minor modifications to existing topography would occur. Approximately 6,000 cubic yards of dirt will be exported from the Project site.

Grading and construction operations will begin on the new buildings while the original buildings remain in operation. Following the completion of the proposed buildings the original buildings and parking lot will be demolished and the construction of the new parking lot will be completed. Following the completion of the new buildings and parking lot, new turf fields for Thompson Middle School will be constructed to replace the fields lost during construction of the new MCA buildings. The proposed Site Plan can be found on Figure 4.

2.7 Contact Information

The Initial Study / Mitigated Negative Declaration for the Project is subject to public review and comment pursuant to Section 15200 of the State CEQA Guidelines. Copies are available during normal business hours at the Murrieta Valley Unified School District, 41870 McAlby Court, Murrieta, California and on the District's website, <https://www.murrieta.k12.ca.us/>. However, during the Covid-19 pandemic the District offices may be closed. If access to the documents on-line is not possible, please contact the District at (951) 696-1600 ext. 1080 to make other arrangements to receive the document.

Comments on this Initial Study / Mitigated Negative Declaration may be submitted to:

Lori Noorigian, Director of Facilities
lnoorigian@murrieta.k12.ca.us
Murrieta Valley Unified School District
41870 McAlby Court
Murrieta, CA 92562



Figure 1: Regional and Project Location Map

Source: Google (2020).

Legend

Project Site Boundary



N.T.S.




Figure 2: Aerial View of Project Site and Surrounding Land Uses

Source: Google (2020).

Legend

Project Site Boundary


N.T.S.

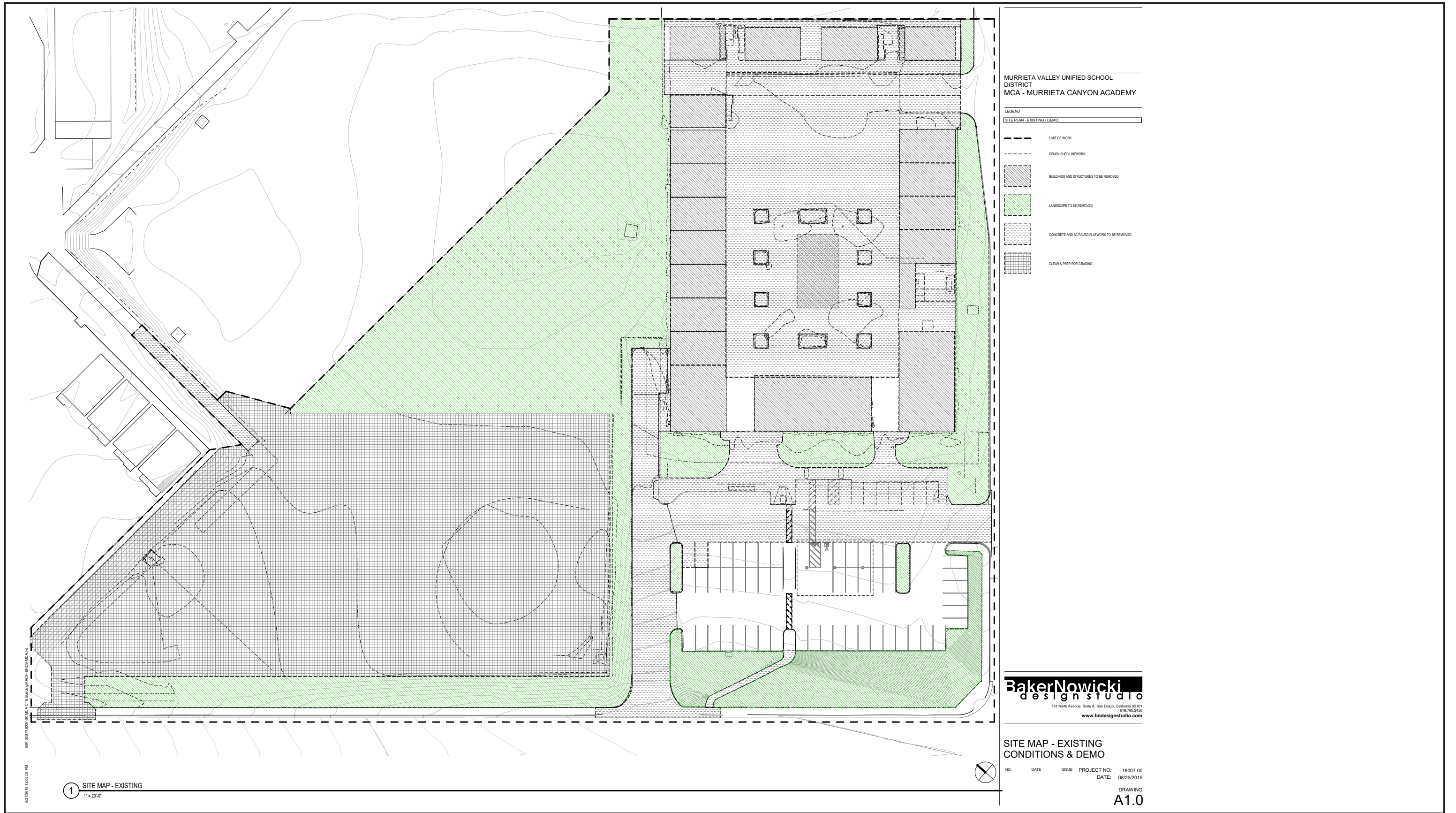


Figure 3: Existing Buildings Site Plan and Demolition
Source: Baker Nowicki Design Studio (08/28/2019).



N.T.S.

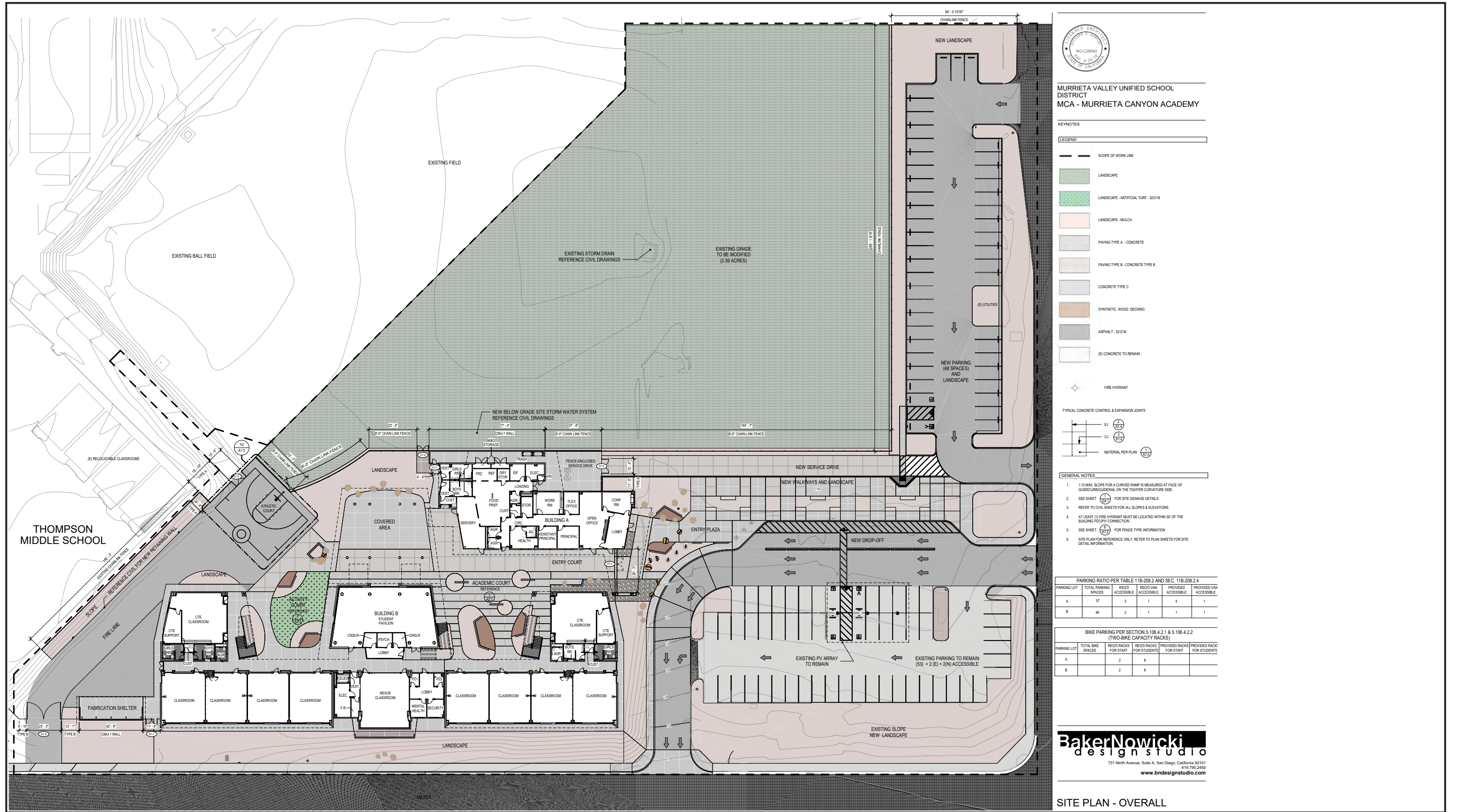


Figure 4: Proposed Site Plan

Source: Baker Nowicki Design Studio (08/28/2019).



SECTION 3.0 ENVIRONMENTAL CHECKLIST

3.1 Aesthetics

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The visual setting of the Project site consists of single-story portable classrooms, parking lots, outdoor hard-court play areas, a softball field and associated backstop, and ornamental landscaping. No scenic resources, such as trees, rock outcroppings, or historic buildings are located on the Project site. The Project site is part of a larger academic campus, located adjacent to Thompson Middle School and Murrieta Valley High School. The area surrounding the Project site is developed with single and two-story residential uses.

Both the existing MCA campus and the softball field at Thompson Middle School are located above the elevation of Hayes Avenue. Therefore, the current visual setting from the adjoining public street, Hayes Avenue, is of the MCA parking lot and portable classrooms, and a landscaped slope with ornamental shrubs and a softball field backstop. From Hayes Avenue, distant views of the foothills near Diamond Valley Lake are only partially visible through existing improvements for a short window along the driveway entrance off Hayes Avenue adjacent to the softball field. Hayes Avenue is not designated a scenic highway.

Discussion

a, b) No Impact. The Project is located adjacent to existing high school and middle school campuses and includes the construction of single and two-story buildings in place of an existing turf field and single-story portable classroom buildings. Given the fully developed nature of the Project site and surrounding area, the Project site does not include any elements of a scenic resource or vista. Furthermore, the Project would not block an existing view of a scenic vista or scenic resources from a State scenic highway or other public locations. Both the existing MCA campus and the softball field at Thompson Middle School are located above the elevation of the Hayes Avenue. Therefore, the current visual setting from the adjoining public street, Hayes Avenue, is of the MCA parking lot and portable classrooms, and a landscaped slope with ornamental shrubs and a softball field backstop. From Hayes Avenue, distant views of the foothills near Diamond Valley Lake are only partially visible through existing improvements for a short window along the driveway entrance off Hayes Avenue adjacent to the softball field. Therefore, no impacts would occur due to Project implementation.

c) No Impact. The Project includes the construction of new classroom and administrative buildings within a maintained turf field and in place of an existing campus consisting of portable buildings. The new buildings are designed with architecture complimentary to existing surrounding high school and middle school campuses. While the campus will be visible from Hayes Avenue, the general visual context remains the same due to the existing MCA campus. Additionally, new turf fields for Thompson Middle School will be constructed to replace the fields lost during construction of the new MCA buildings. Therefore, the Project would remain visually consistent and compatible with the existing visual setting of the Project site and surrounding land uses. No local ordinances governing the Project site regulate the scenic quality of the proposed Project. Therefore, no impact would occur.

d) No Impact. The Project includes outdoor lighting designed to be shielded and directed downward. The adjacent high school and middle school campuses contain lights on the buildings as well as parking lots have night lighting. Further, the existing MCA campus buildings and parking lots have night lighting. Therefore, night lighting associated with the Project would not be out of character for the area. Since the Project design includes light fixtures directed downward, without spillage to surrounding properties, proposed lighting remains consistent with existing lighting and dark sky objectives. No impacts would occur.

3.2 Agriculture and Forestry Resources

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>AGRICULTURE AND FOREST RESOURCES.</p> <p>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</p>				
<p>a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>d) Result in the loss of forest land or conversion of forest land to non-forest use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Project would occur in the general location of the existing turf fields associated with Thompson Middle School, located immediately north-west of the existing MCA campus and south of the adjacent Thompson Middle School buildings. The area was graded at the time of original grading of the Thompson Middle School and MCA campus. The Project site is designated Civic/Institutional land use.

Discussion

a) No Impact. The Project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as documented on the Riverside County Important Farmland 2016 map prepared by the California Department of Conservation as part of the Farmland Mapping and Monitoring Program. Therefore, no impact would occur.

b) No Impact. The Project site is zoned Civic/Institutional, not Agriculture, on the City's Zoning Map. No impact would occur.

c) No Impact. No timber or farmland designation exists on the Project site. No impact would occur.

d) No Impact. The Project site is currently developed with turf fields and MCA campus. No forest land is located on the Project site. Therefore, no impact would occur.

e) No Impact. No other conditions exist that would convert farmland or timberland as a result of the Project because timberland does not exist on the Project site or in the area. Furthermore, the Project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, no impacts would occur.

3.3 Air Quality

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

An air quality study, titled *Murrieta Canyon Academy, Air Quality Impact Analysis* dated May 5, 2020 (Appendix A) provides an analysis of potential impacts to air quality associated with construction and operation of the proposed Project and measures to mitigate any impacts considered potentially significant in comparison to thresholds established by the South Coast Air Quality Management District (SCAQMD). Additionally, the Project has been evaluated to determine consistency with the applicable Air Quality Management Plan (AQMP), exposure of sensitive receptors to substantial pollutant concentrations, and the impacts of odors. Sensitive receptor locations include long-term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, childcare centers, and athletic facilities can also be considered as sensitive receptors.

The Project is located in the South Coast Air Basin (SCAB) within the jurisdiction of SCAQMD. Air quality is defined by ambient air concentrations of specific pollutants determined by the Environmental Protection Agency (EPA) to be of concern with respect to the health and welfare of the public. The criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible levels, and include Carbon Monoxide (CO); Sulfur Dioxide (SO₂); Nitrous Oxides (NO_x); Ozone (O₃); respirable 10- and 2.5-micron particulate matter (PM₁₀ and PM_{2.5}); Volatile Organic Compounds (VOC); Reactive Organic Gasses (ROG); lead (Pb); and odor.

The determination of whether a region's air quality is healthy or unhealthy is determined by comparing contaminant levels in ambient air samples to the state and federal standards. The most recent state and federal standards were updated by California Air Resources Board (CARB) on May 4, 2016 and are presented in Table 2-2 of the Air Quality Impact Report found in Appendix A. Attainment status for a pollutant means that the SCAQMD meets the standards set by the Environmental Protection Agency (EPA) or the California EPA (CalEPA). Conversely, nonattainment means that an area has monitored air quality that does not meet the National Ambient Air Quality Standards (NAAQS) or the more stringent California Ambient Air Quality Standards (CAAQS) standards. Areas in California where ambient air concentrations of pollutants are higher than the state standard are in "non-attainment" status for that pollutant. Due to the area's natural physical characteristics (weather and topography) and man-made influences (development patterns), the SCAB has been designated as a non-attainment area for certain pollutants. Table 3.3-a summarizes attainment designations for SCAB. In order to improve air quality in nonattainment areas, a State Implementation Plan (SIP) is drafted by CARB. The SIP outlines the measures that the state will implement to improve air quality. Once nonattainment areas meet the standards and additional redesignation requirements, the EPA will designate the area as a maintenance area.

Table 3.3-a. Attainment Status of Criteria Pollutants in the SCAB

Criteria Pollutant	State Designation	Federal Designation
O ₃ – 1-hour standard	Nonattainment	--
O ₃ – 8-hour standard	Nonattainment	Nonattainment
PM ₁₀	Nonattainment	Attainment
PM _{2.5}	Nonattainment	Nonattainment
CO	Attainment	Unclassifiable/Attainment
NO ₂	Attainment	Unclassifiable/Attainment
SO ₂	Unclassifiable/Attainment	Unclassifiable/Attainment
Pb ¹	Attainment	Unclassifiable/Attainment
<p>Note:</p> <p>1. The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the SCAB.</p> <p>See Appendix 2.1 within the Air Quality Impact Analysis (Appendix A) for a detailed map of State/National Area Designations within the SCAB</p> <p>"--" = The national 1-hour O₃ standard was revoked effective June 15, 2005</p> <p>Source: Table 2-3 within the Air Quality Impact Analysis (Appendix A).</p>		

The Project site is located within the Source Receptor Area (SRA) 26. Within SRA 26, the SCAQMD Temecula Valley monitoring station, located 8.84 miles northeast of the Project site, is the nearest long-term air quality monitoring station for O₃, CO, NO₂, and PM₁₀. The Temecula Valley monitoring station does not include data for CO, NO₂, and PM_{2.5}. As such, the next nearest monitoring station, Elsinore Valley monitoring station, located in SRA 25 approximately 10.31 miles northwest of the Project site, is used for CO and NO₂, and the Metropolitan Riverside County monitoring station located within SRA 23, roughly 33.42 miles northwest of the Project site, is used for PM_{2.5}.

The most recent three years of data available is shown on Table 3.3-b and identifies the number of days ambient air quality standards were exceeded for the study area, which is considered to be representative of the local air quality at the Project site. Data for O₃, CO, NO₂, PM₁₀, and PM_{2.5} for 2016 through 2018 was obtained from the SCAQMD Air Quality Data Tables. Additionally, data for SO₂ has been omitted as attainment is regularly met in the SCAB and few monitoring stations measure SO₂ concentrations.

Table 3.3-b. Project Area Air Quality Monitoring Summary 2016-2018

Pollutant	Standard	Year		
		2016	2017	2018
O ₃				
Maximum Federal 1-Hour Concentration (ppm)		0.124	0.112	0.116
Maximum Federal 8-Hour Concentration (ppm)		0.093	0.098	0.095
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	15	23	16
Number of Days Exceeding State/Federal 8-Hour Standard	> 0.070 ppm	45	54	30
CO				
Maximum Federal 1-Hour Concentration	> 35 ppm	1.2	1.2	1.1
Maximum Federal 8-Hour Concentration	> 20 ppm	0.6	0.8	0.8
NO ₂				
Maximum Federal 1-Hour Concentration	> 0.100 ppm	0.051	0.049	0.041
Annual Average		8.1	8.2	8.5
PM ₁₀				
Maximum Federal 24-Hour Concentration (µg/m ³)	> 150 µg/m ³	99	133	104
Annual Federal Arithmetic Mean (µg/m ³)		21.4	22.5	22.4
Number of Days Exceeding Federal 24-Hour Standard	> 150 µg/m ³	0	0	0
Number of Days Exceeding State 24-Hour Standard	> 50 µg/m ³	4	9	9
PM _{2.5}				
Maximum Federal 24-Hour Concentration (µg/m ³)	> 35 µg/m ³	39.12	50.3	50.7
Annual Federal Arithmetic Mean (µg/m ³)	> 12 µg/m ³	12.54	12.18	12.41
Number of Days Exceeding Federal 24-Hour Standard	> 35 µg/m ³	4	6	2
<p><i>ppm = Parts Per Million</i> <i>µg/m³ = Microgram per Cubic Meter</i> <i>Source: Data for O₃, CO, NO₂, PM₁₀, and PM_{2.5} was obtained from SCAQMD Air Quality Data Tables.</i></p>				

Local air quality management districts, such as the SCAQMD, regulate air emissions from stationary sources such as commercial and industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS. The SCAQMD establishes significance criteria for air quality emissions. The SCAQMD's CEQA Air Quality Significance Thresholds indicate that any projects in the SCAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact. MVUSD as the CEQA Lead Agency is relying on the following thresholds of significance, which are shown quantitatively in Table 3.3-c.

Table 3.3-c. Threshold of Significance for Air Quality Impacts – Maximum Daily Regional Thresholds

Pollutant	Construction Threshold of Significance (Pounds per Day)	Operations Threshold of Significance (Pounds per Day)
Oxides of Nitrogen (NO _x)	100	55
Volatile Organic Compounds (VOC)	75	55
Particulate Matter (PM ₁₀)	150	150
Particulate Matter (PM _{2.5})	55	55
Oxides of Sulfur (SO _x)	150	150
Carbon Monoxide (CO)	550	550
Lead (Pb)	3	3

Source: Regional Thresholds presented in this table are based on the SCAQMD Air Quality Significance Thresholds, April 2019.

As previously stated, the Project site is currently developed with an existing campus of 22,500 sf of portable classrooms. Detailed operation model outputs are presented in Appendix 3.3 of the Air Quality Impact Analysis (Appendix A). The existing campus emissions are presented in Table 3.3-d.

Table 3.3-d. Emissions from Existing Campus Emissions

Pollutant	Summer Scenario (Pounds per Day)	Winter Scenario (Pounds per Day)
Oxides of Nitrogen (NO _x)	8.65	8.98
Volatile Organic Compounds (VOC)	2.63	2.42
Particulate Matter (PM ₁₀)	7.47	7.47
Particulate Matter (PM _{2.5})	2.05	2.05
Oxides of Sulfur (SO _x)	0.08	0.08
Carbon Monoxide (CO)	23.52	20.10

Source: CalEEMod Operational-source emissions for the existing campus emissions are presented in Appendix 3.3 of the Air Quality Impact Analysis (Appendix A).

On October 17, 2017, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the CalEEMod Version 2016.3.2. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (VOCs, NO_x, SO_x, CO, PM₁₀, and PM_{2.5}) and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures. Accordingly, the latest version of CalEEMod has been used for the Project to determine construction and operational air quality emissions. Output from the model runs for both construction and operational activity are provided in Appendices 3.1 through 3.3 of the Air Quality Impact Analysis (Appendix A).

Discussion

a) Less Than Significant. The Project site is located within the SCAB, which is characterized by relatively poor air quality. The SCAQMD has jurisdiction over an approximately 10,743 square-

mile area consisting of the four-county Basin and the Los Angeles County and Riverside County portions of what use to be referred to as the Southeast Desert Air Basin. Currently, these state and federal air quality standards are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of AQMPs to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

In March 2017, the SCAQMD released the 2016 AQMP. The 2016 AQMP continues to evaluate current integrated strategies and control measures to meet the NAAQS, as well as explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels.

The Project would not result in or cause NAAQS or CAAQS violations. The Project proposes an increase in the number of students from 234 students to 594 students. However, the change in number of students represents a minor increase in intensity of use because the Project does not operate as a traditional school campus. The Project, Murrieta Canyon Academy, provides alternative education for students. A minority of the enrolled students arrive daily and have a more traditional school schedule. A majority of the students attend either Independent Study, or Adult Education morning or Adult Education evening classes. Therefore, all enrolled students are rarely all on campus at the same time. The proposed Project is consistent with the land use and growth intensities reflected in the City's adopted General Plan. Furthermore, the Project would not exceed any applicable regional or local thresholds. As such, the Project is therefore considered to be consistent with the AQMP and impacts are less than significant.

b) Less Than Significant with Mitigation. Grading and construction operations will begin on the new buildings while the original buildings remain in operation. Following the completion of the proposed buildings the original buildings and parking lot will be demolished and the construction of the new parking lot will be completed. Following the completion of the new buildings and parking lot, new turf fields for Thompson Middle School will be constructed to replace the fields lost during construction of the new MCA buildings. The Air Quality Impact Analysis studied both the short-term construction emissions and long-term operational emissions.

Construction Emissions

Regional construction-period criteria pollutant emissions were quantified using the CalEEMod land use emissions estimation model. Construction related emissions were modeled using the following assumptions of stages: Site Preparation, Grading, Building Construction, Paving, Architectural Coasting, and Demolition. Criteria pollutants would be generated by the exhaust emissions of heavy-duty construction equipment used during the multiple phases of the proposed project's construction equipment. Non-exhaust emissions would be generated by earthwork and demolition activities, which would result in fugitive dust emissions, and painting/coatings operations.

Dust is typically a major concern during grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called “fugitive emissions”. Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). CalEEMod was utilized to calculate fugitive dust emissions resulting from this phase of activity. The Project is anticipated to require 6,000 cubic yards of export. For purposes of analysis, the export quantity will be modeled with the CalEEMod default hauling trip length of 20 miles.

Construction is expected to commence in August 2022 and will last through August 2023. The construction schedule utilized in the analysis represents a “worst-case” analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent.

CalEEMod calculates maximum daily emissions for summer and winter periods. The estimated maximum daily construction emissions are summarized in Table 3.3-e below. Project construction-source emissions would not exceed the numerical thresholds of significance established by the SCAQMD for any criteria pollutant.

Table 3.3-e. Overall Construction Emissions Summary – Without Mitigation

Year	Emissions (Pounds per Day)					
	VOC	NOx	CO	SOx	PM ₁₀	PM _{2.5}
Summer						
2022	7.63	87.65	37.10	0.12	17.72	9.03
2023	16.66	44.48	38.53	0.09	3.42	2.16
Winter						
2022	7.63	87.66	36.95	0.12	17.72	9.03
2023	16.66	44.46	37.86	0.09	3.42	2.16
Maximum Daily Emissions	16.66	87.66	38.53	0.12	17.72	9.03
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	NO	NO	NO	NO	NO	NO
<i>Source: CalEEMod construction-source (unmitigated) emissions are presented in Appendix 3.1 within the Air Quality Impact Analysis (Appendix A).</i>						

As shown in Table 3.3-e above, daily emissions associated with construction would not exceed SCAQMD regional thresholds. Regional construction emissions would not contribute substantially to or worsen an existing air quality violation, because SCAQMD significance thresholds would not be exceeded. Thus, a less than significant impact would occur for Project-related construction-source emissions.

While the analysis in the Air Quality Impact Analysis shows construction emissions below SCAQMD thresholds of significance, SCAQMD regulates construction operations through a series of Rules. All construction projects must comply with those Rules, which further reduce construction related emissions. Two of the more common Rules that would apply to the proposed Project are compliance with Rule 403 and Rule 1113. In order to bring more awareness to those Rules during Project implementation, Rule 403 and Rule 1113 have been added as

Mitigation Measure MM AQ-1 and Mitigation Measure MM AQ-2 to further minimize the pollutant emissions from construction on sensitive receptors.

MM AQ-1 *The contractor shall adhere to applicable measures contained in Table 1 of Rule 403 including, but not limited to:*

- *All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 miles per hour (mph) per SCAQMD guidelines in order to limit fugitive dust emissions.*
- *The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day.*
- *The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are limited to 15 mph or less.*

MM AQ-2 *The following measures shall be incorporated into Project plans and specifications as implementation of SCAQMD Rule 1113:*

- *Only “Low-Volatile Organic Compounds (VOC)” paints (no more than 50 gram/liter (g/L) of VOC) consistent with SCAQMD Rule 1113 shall be used.*

With implementation of Mitigation Measures MM AQ-1 and MM AQ-2, construction related air quality pollutant emissions impacts would be less than significant.

Operational Emissions

Operational activities associated with the proposed Project will result in emissions of VOCs, NOX, SOX, CO, PM10, and PM2.5. Operational emissions would be expected from the following primary sources: Area Source Emissions; Energy Source Emissions; and Mobile Source Emissions. Per the Air Quality Impact Analysis each of the source emissions were calculated based on defaults provided within CalEEMod.

Operational-source emissions are summarized on Table 3.3-f. Detailed operational model outputs are presented in Appendix 3.2 of the Air Quality Impact Analysis (Appendix A). Project operational-source emissions would not exceed the numerical thresholds of significance established by the SCAQMD for any criteria pollutant.

Table 3.3-f. Maximum Operational Emissions Summary

Operational Activities – Summer Scenario	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area	0.99	9.00E-05	9.45E-03	0.00	3.00E-05	3.00E-05
Energy Source	8.18E-03	0.07	0.06	4.50E-04	5.65E-03	5.65E-03
Mobile	3.26	13.22	36.11	0.13	11.48	3.15
Total Maximum Daily Emissions	4.27	13.29	36.18	0.13	11.49	3.16
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	NO	NO	NO	NO	NO
Operational Activities – Winter Scenario	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area	0.99	9.00E-05	9.45E-03	0.00	3.00E-05	3.00E-05
Energy Source	8.18E-03	0.07	0.06	4.50E-04	5.65E-03	5.65E-03
Mobile	2.93	13.73	30.85	0.12	11.48	3.15
Total Maximum Daily Emissions	3.94	13.80	30.92	0.12	11.49	3.16
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	NO	NO	NO	NO	NO
<i>Source: CalEEMod operational-source emissions are presented in Appendix 3.2 within the Air Quality Impact Analysis (Appendix A).</i>						

As shown in Table 3.3-f above, emissions associated with operations would not exceed SCAQMD regional thresholds. Regional operational emissions would not contribute substantially to or worsen an existing air quality violation, because SCAQMD significance thresholds would not be exceeded. Thus, a less than significant impact would occur for Project-related operational emissions and no mitigation is required.

Potential Overlap of Construction and Operational Activity

As previously stated, while the construction of the new buildings occurs, the existing buildings will remain in operation. As a conservative measure, the peak daily emissions of the overlap of construction and operational activities are shown in Tables 3.3-g. It should be noted that the SCAQMD does not have different thresholds for overlapping activities, rather the SCAQMD has separate thresholds for construction activity and operational activity. As such, the potential emissions from overlapping construction and operational activity is provided for informational purposes only.

Table 3.3-g. Potential Overlap of Construction and Operational Activity

Maximum Daily Emissions	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Construction Peak Emissions	16.66	87.66	38.53	0.12	17.72	9.03

Maximum Daily Emissions	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Operational Maximum Total Emissions	2.63	8.98	23.52	0.08	7.47	2.05
Total Maximum Daily Emissions	19.29	96.64	62.06	0.20	25.19	11.08
<i>Source: Air Quality Impact Analysis (Appendix A).</i>						

The Basin, the geographic region where the Project is located, is currently in nonattainment for O₃ and PM_{2.5} under the NAAQS, as well as O₃, PM₁₀, and PM_{2.5} under the CAAQS. This is the result of past and present projects and will be further impeded by reasonably foreseeable future projects. SCAQMD has developed thresholds to ensure attainment of the NAAQS and CAAQS; therefore, exceedance of SCAQMD regional threshold levels is considered a significant cumulative impact and adverse cumulative consequence. As discussed above, criteria pollutant emissions would not exceed any pollutants' regional threshold during construction and operation of the proposed Project. Thus, the Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (in this case, O₃, PM₁₀, and PM_{2.5}), the proposed project would not result in a net increase in pollutants that would be cumulatively considerable. However, while the analysis in the Air Quality Impact Analysis shows construction and operational emissions below SCAQMD thresholds of significance, construction air quality measures incorporated into Mitigation Measure MM AQ-1 and Mitigation Measure MM AQ-2 to further minimize the pollutant emissions from construction on sensitive receptors. With implementation of Mitigation Measures MM AQ-1 and MM AQ-2, construction related air quality pollutant emissions impacts would be less than significant.

c) Less Than Significant. The potential impact of Project-generated air pollutant emissions at sensitive receptors has also been considered. Sensitive receptors can include uses such as long-term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, childcare centers, and athletic facilities can also be considered as sensitive receptors.

The Local Significance Threshold (LSTs) analysis used included the methodology outlined in the SCAQMD *Final Localized Significance Threshold Methodology (LST Methodology)*. The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the NAAQS and CAAQS. Collectively, these are referred to as LSTs. LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. To address the issue of localized significance, the SCAQMD adopted LSTs that determine whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects.

Consistent with the LST Methodology, the nearest land use where an individual could remain for 24 hours to the Project site (in this case the nearest residential land use) has been used to determine construction and operational air quality impacts for emissions of PM₁₀ and PM_{2.5}, since

PM₁₀ and PM_{2.5} thresholds are based on a 24 hour averaging time. In addition, if an industrial/commercial use is located at a closer distance to the Project site than the nearest residential use, the nearest industrial/commercial use will be utilized to determine construction and operational LST air impacts for emissions of NO₂ and CO an individual could be present at these sites for periods of 1 to 8 hours per the LTS Methodology.

The SCAQMD recommends that the nearest sensitive receptor be considered when determining the Project's potential to cause an individual and cumulatively significant impact. Receptors in the Project study area are described below and shown on Figure 3.3-1.

- R1: Location R1 represents the Murrieta Valley High, approximately 526 feet northeast of the Project site.
- R2: Location R2 represents the existing residence at 24200 Hayes Avenue, approximately 142 feet east of the Project site. Receiver R2 is placed at the residential building façade.
- R3: Location R3 represents the existing residence at 24104 Golden Mist Drive, approximately 156 feet south of the Project site. Receiver R3 is placed behind the existing 6-foot high barrier in the private outdoor living area (backyard).
- R4: Location R4 represents the existing residence at 42512 Sherry Lane, approximately 85 feet southwest of the Project site. Receiver R4 is placed behind the existing 6-foot high barrier in the private outdoor living area (backyard).
- R5: Location R5 represents the existing residence at 42515 Sherry Lane, approximately 91 feet west of the Project site. Receiver R5 is placed behind the existing 6-foot high barrier in the private outdoor living area (backyard).
- R6: Location R6 represents the existing residence at 24112 Semillon Lane, approximately 86 feet west of the Project site. Receiver R5 is placed behind the existing 6-foot high barrier in the private outdoor living area (backyard).
- R7: Location R7 represents the existing residence at 42491 Dusty Trail, approximately 641 feet northwest of the Project site. Receiver R7 is placed behind the existing 6-foot high barrier in the private outdoor living area (backyard).
- R8: Location R1 represents the existing Thompson Middle School, approximately 239 feet north of the Project site.

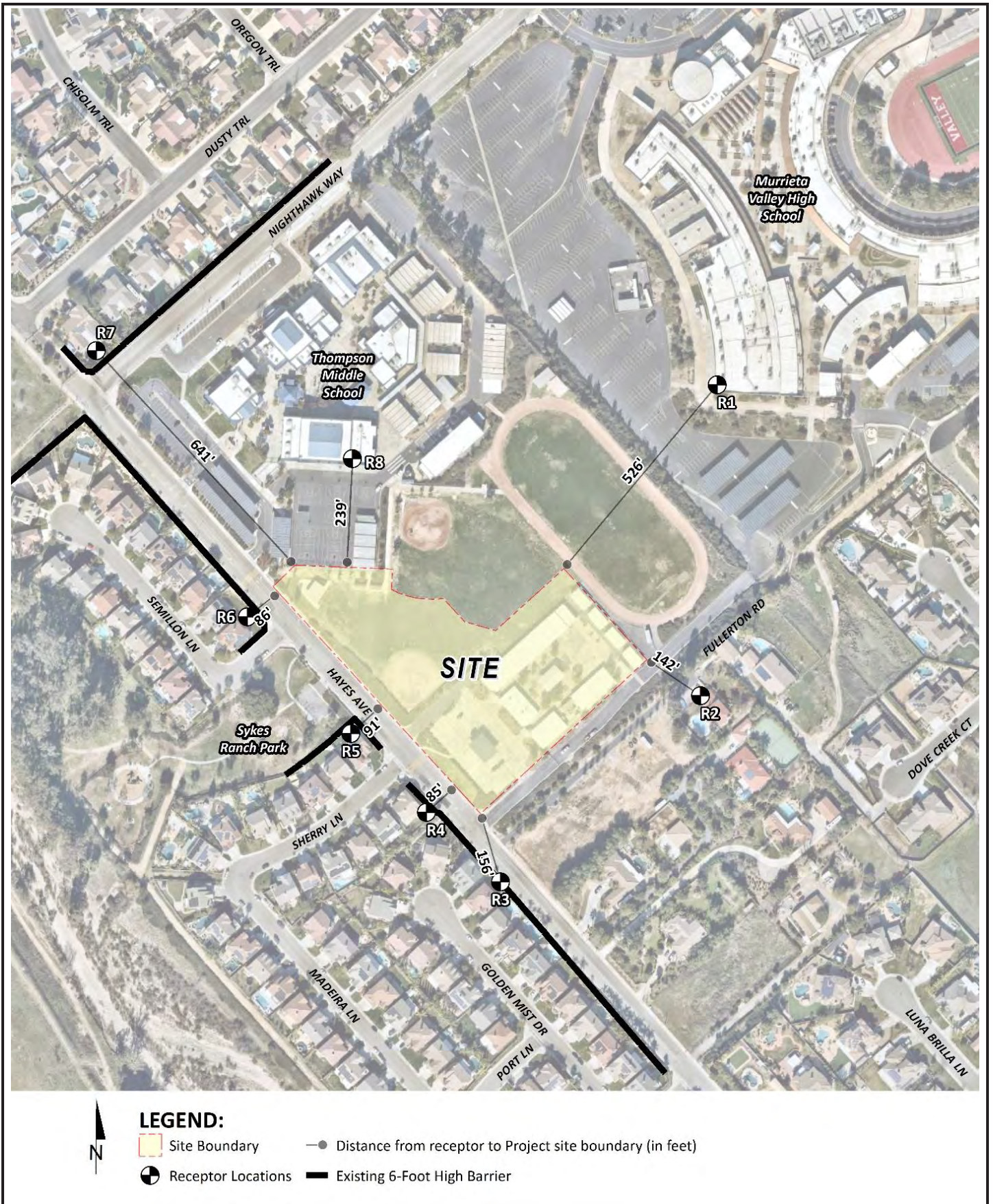


Figure 3.3-1: Sensitive Receptor Map

Source: UrbanCrossroads (05/2020).



N.T.S.

The closest land use where an individual could remain for 24 hours to the Project site (in this case the nearest residential land use) has been used to determine localized construction and operational air quality impacts for emissions of PM₁₀ and PM_{2.5} (since PM₁₀ and PM_{2.5} thresholds are based on a 24 hour averaging time). As such, nearest receptor to evaluate localized impacts of PM₁₀ and PM_{2.5}, is the existing residential home represented by R4, located roughly 85 feet/26 meters southwest of the Project site at 42512 Sherry Lane.

Consistent with LST Methodology, the nearest industrial/commercial use to the Project site is used to determine construction and operational LST air impacts for emissions of NO₂ and CO as the averaging periods for these pollutants are shorter (eight hours or less) and it is reasonable to assumed that an individual could be present at these sites for periods of 1 to 8 hours. No industrial/commercial receptors occur closer than the residential home located at R4. As such, the same 26-meter distance used for evaluation of PM₁₀ and PM_{2.5} will be used for evaluation of localized NO₂, and CO.

The total acreage disturbed assumes five-acres per day for site preparation, grading, and demolition activities. This approach is conservative as it assumes that all on-site emissions associated with the Project would occur within a concentrated 5-acre area. The thresholds used for the construction-source LST analysis and localized impacts at the nearest receptor location in the vicinity of the Project is found in Table 3.3-h below.

Table 3.3-h. Localized Significance Threshold and Summary of Construction – Without Mitigation

On-Site Site Preparation Emissions	Emissions (lbs/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Maximum Daily Emissions	50.41	20.01	11.27	6.08
SCAQMD Localized Threshold	373	1,995	14	8
Threshold Exceeded?	NO	NO	NO	NO
On-Site Grading Emissions	Emissions (lbs/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Maximum Daily Emissions	33.85	15.50	5.77	2.76
SCAQMD Localized Threshold	373	1,995	14	8
Threshold Exceeded?	NO	NO	NO	NO
On-Site Demolition Emissions	Emissions (lbs/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Maximum Daily Emissions	21.48	19.64	1.29	0.97
SCAQMD Localized Threshold	373	1,995	14	8
Threshold Exceeded?	NO	NO	NO	NO
Source: CalEEMod unmitigated localized construction-source emissions are presented in Appendix 3.1 of the Air Quality Impact Analysis (Appendix A).				

Results of the LST analysis indicate that, the Project would not exceed the SCAQMD localized significance thresholds during construction. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations during Project construction.

According to SCAQMD LST methodology, LSTs would apply to the operational phase of a proposed Project, if the Project includes stationary sources, or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., transfer facilities and warehouse buildings). The proposed Project does not include such uses.

The Project would not result in potentially adverse CO concentrations or “hot spots.” Further, detailed modeling of Project-specific CO “hot spots” is not needed to reach this conclusion. An adverse CO concentration, known as a “hot spot”, would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. At the time of the SCAQMD’s *CEQA Air Quality Handbook (1993)* (*1993 CEQA Handbook*), the SCAB was designated nonattainment under the CAAQS and NAAQS for CO.

Results of the LST analysis indicate that the Project would not exceed the SCAQMD localized significance thresholds during operational activity due to not including stationary sources or attracting mobile sources that may spend long periods queuing and idling at the site. Further Project traffic would not create or result in a CO “hotspot.” Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations as the result of Project operations and a less than significant impact would occur.

d) Less Than Significant. The Project does not contain land uses typically associated with emitting objectionable odors. Potential odor sources associated with the proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities (short-term) and the temporary storage of typical solid waste (refuse) associated with the proposed Project’s (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and impacts would be less than significant. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City’s solid waste regulations. The proposed Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors associated with the proposed Project construction and operations would be less than significant.

3.4 Biological Resources

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

A habitat assessment of the Project site was performed by Carlson Strategic Land Solutions (CSLS) in November 2019 (Appendix B). The habitat assessment was used to evaluate the Project site’s suitability for the presence of special status species, vegetation types, wetlands and other jurisdictional drainages, wildlife movement, and characterize the environmental setting of the

Project site. In addition to a field inspection, available literature, historical aeriels, and databases were reviewed regarding sensitive habitats and special status plants wildlife species within the Project vicinity. The consulted literature and databases focused on Riverside County, California, and included the following:

- U.S. Fish and Wildlife Service (USFWS) Critical Habitat database.
- California Department of Fish and Wildlife's (CDFW) California Natural Diversity Data Base (CNDDDB) identifies locations of sensitive plant species, wildlife species, and natural communities that are known, or have been known in the past, to occur in a specific or general area.
- Topographic maps and aerial photographs were used to identify any blue line streams.

The USFWS's online service for information regarding Final Critical Habitat designation within California was reviewed to determine if the Project site was located within any species' designated Critical Habitat. The CNDDDB is a species account database that inventories status and locations of rare plants and wildlife in California. The CNDDDB was used to identify any sensitive plant communities and special status plants and wildlife that have potential to occur within the Project site.

The Project site is located within the Western Riverside County Multiple Species Conservation Plan (MSHCP), specifically within the Lake Elsinore Area Plan. The MSHCP is a comprehensive plan that includes portions of the County of Riverside and numerous cities. The MSHCP plans for conservation of 146 species and proposes a reserve system of approximately 500,000 acres. The MSHCP is intended to contribute to the economic viability of the County of Riverside by providing landowners, developers, and public infrastructure projects a streamlined regulatory process. While Murrieta Valley Unified School District is not a signatory to the MSHCP Agreement, the Project was analyzed to confirm no MSHCP features or overlays occurred on the Project site.

A field survey was conducted on October 2, 2019. Vegetation communities were mapped by marking the limits of each vegetation community onto an aerial photograph. Furthermore, the Project site was assessed for its potential to support special status plant, fish, wildlife species, or habitats. Additionally, CSLS conducted a delineation of potentially jurisdictional drainages pursuant to the Clean Water Act, Porter Cologne, and Fish and Game Code.

As detailed in the Biological Resource Assessment, the Project site contains a manicured turf field, ornamental landscaping, buildings, hardscape, parking lot, and associated infrastructure as outlined within Table 3.4-a. Figure 3.4-1 graphically depicts the vegetation communities found on site. The Project site does not contain any jurisdictional features regulated by U.S. Army Corps of Engineers, CDFW, and/or Regional Water Quality Control Board (RWQCB). A full list of plant species can be found within the Biological Resource Assessment in Appendix B.

Table 3.4-a. Vegetation within the Project Site

Vegetation Community	Acreage
Ornamental	2.82
Developed	2.89
Total	5.71

The two mapped vegetation communities are described below.

Ornamental

This community includes maintained landscaped areas. The ornamental vegetation is non-native, and some of it is considered invasive. The ornamental habitat type includes shade trees, such as Peruvian pepper tree (*Schinus molle*), Brazilian pepper (*Schinus terebinthifolius*), and turf associated with the ball field, primarily Kentucky bluegrass (*Poa pratensis*).

Developed

This community consists of area developed with structures, asphalt, and concrete. These areas consist of built materials and are frequently maintained.

Special-Status Species

Candidate, sensitive, or special-status species are commonly characterized as species that are at potential risk or actual risk to their persistence in a given area or across their native habitat. These species have been identified and assigned a status ranking by governmental agencies such as the CDFW, the USFWS, and private organizations such as the CNPS. Some common threats to a species' or population's persistence include habitat loss, degradation, and fragmentation, as well as human conflict and intrusion.

The database search of government agencies such as, USFWS and CDFW, and private organizations determined no critical habitat, special status plants, or special status wildlife occurrences fall on the Project site.

Jurisdictional Delineation

The Project site does not contain any drainages that meet the definition of jurisdictional resources for Waters of the United States or Waters of the State.

MSHCP

The Project site is not located within any MSHCP Criteria Areas, Cell Groups, or Subunits. The Project site is not located in survey areas for Amphibians, Mammals, Special Linkage, or special status overlay areas. The Project site is currently developed with buildings, hardscape, ornamental landscaping, a parking lot, and a turf field. Therefore, with Project implementation, there would be no conflict with conservation plans. Furthermore, the MVUSD is not a permittee or a signatory participant of the MSHCP.



Figure 3.4-1: Vegetation Communities Map

Source: Carlson Strategic Land Solutions (11/01/2019).



N.T.S.

Discussion

a) Less than Significant with Mitigation Incorporated. The entire site will be impacted with the construction of the proposed Project. Based on the results of database searches, historic records, and known regional occurrences, no special-status plants or wildlife have potential to occur on the Project site.

A site survey was conducted onsite on October 2, 2019, by CSLS biologists. The site was surveyed on foot, and all plant and wildlife species observed were recorded. The site was assessed for vegetative communities, habitat suitability for special-status species, and the presence of potentially jurisdictional features. Based on the field survey, the Project site is minimally vegetated, with ornamental species adjacent to the parking lot and turf fields. The Project site contains developed areas in the form of buildings, parking lot, and hardscape courtyard.

Sensitive Plant Species

Development of the Project Site would result in the direct removal of common plant species. Common plant species present within the site occur in large numbers throughout the region and their removal does not constitute an impact on a candidate, sensitive, or special status species. Therefore, potential impacts to common plant species would be a less than significant impact.

Sensitive Wildlife Species

The ornamental habitat on and adjacent to the Project site may provide suitable nesting habitat for avian species protected under the Migratory Bird Treaty Act (MBTA). The removal of vegetation during construction activities could result in noise, dust, human disturbance, and other direct/indirect impacts to nesting birds on or in the vicinity of the Project site. Incorporation of **Mitigation Measure MM BIO-1** would ensure that potential impacts to these species are less than significant with mitigation incorporated by requiring vegetation be removed outside of nesting bird season and requiring preconstruction surveys for nesting birds if vegetation is removed during nesting season.

MM BIO-1 *Vegetation removal activities shall take place outside of typical avian breeding season (February 15 through August 15) to avoid potential impacts to nesting birds. If work is to be completed during the typical avian breeding season (Feb. 15 - Aug. 15), a qualified biologist shall conduct a nesting bird survey to identify any potential nesting activity within 5 days before start of construction.*

If active nests are observed, the location shall be clearly marked (with flagging) a distance of 100-feet surrounding the nest and designated as a "no-work buffer". No work shall occur within the buffer until the nest becomes inactive and the nestlings fledged (as confirmed by a qualified biologist). Encroachment of construction may be permitted at the discretion of a biological monitor.

Therefore, with implementation of mitigation measure MM BIO-1, impacts associated with substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service, including migratory and/or nesting birds, would be less than significant.

b, c) No Impact. The Project site consists of ornamental and developed vegetation communities within an existing campus. A field survey confirmed that no drainages, wetlands, or riparian areas or habitat exist on the project site. Therefore, no impacts would occur to riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service would occur at the Project Site.

d) Less than Significant with Mitigation Incorporated. The Project site consists of ornamental and developed vegetation communities within an existing campus. The Project site supports limited ornamental habitat for species on a local scale for movement, however, it provides no function to facilitate wildlife movement on a regional scale. Furthermore, the campus and adjacent turf field is developed and does not serve as a wildlife movement corridor. The Project site is surrounded by residential neighborhoods, a middle school, and a high school. Furthermore, the campus is completely fenced.

The Project Site supports potential nesting and foraging habitat for migratory birds, in addition to potential foraging habitat for raptors. Based on the built nature of the Project site, the quality of foraging habitat is low. The ornamental vegetation community provides potentially suitable habitat for nesting birds. Nesting activity typically occurs from February 15 to August 15. Disturbing or destroying active nests is a violation of the MBTA. In addition, nests and eggs are protected under Fish and Wildlife Code Section 3503. Therefore, potential direct impacts to breeding birds (e.g. through nest removal) or indirect impacts (e.g. by noise causing abandonment of the nest) would be potentially significant. Compliance with MM BIO-1 would reduce impacts to less than significant.

Therefore, with implementation of MM BIO-1, potential impacts associated with the substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites would be less than significant.

e, f) No Impact. The trees found onsite are identified as non-native and ornamental species. Further, no local policies or ordinance protecting biological resources, such as a tree preservation policy or ordinance, are applicable to the Project site. Therefore, no impacts associated with conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance would occur.

The Project site is located within the Western Riverside County MSHCP, but not located within any MSHCP Criteria Areas, Cell Groups, or Subunits. Furthermore, the Project site is not located in survey areas for Amphibians, Mammals, Special Linkage, or special status overlay areas.

Therefore, the Project site was not identified for further preservation and development of the Project site would not conflict with an adopted habitat conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan and no impact would occur. Furthermore, MVUSD is not a permittee or a signatory participant of the MSHCP. Therefore, no impacts would occur.

3.5 Cultural Resources

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

A Cultural / Paleontological Resource Survey for the Murrieta Canyon Academy (“Cultural Resources Study”) was prepared by Duke CRM dated October 18, 2019 and included in Appendix C. The Project is located within the Elsinore Trough, which is a valley that formed by vertical movement along faults associated with the San Andreas Fault system. Within the Elsinore Trough, valley sediment can exceed 2,000 feet in depth. The southeastern portion of the Project site is dominated by the Pleistocene to Holocene age fluvial deposits and the northwestern portion of the site is dominated by Pauba Formation sandstone. However, the Project site was previously graded as part of the construction of the existing MCA and Thompson Middle School in the late 1990s, resulting in the majority of the Project site underlain by artificial fill.

The Project is also located within the ethnographic territory of the Luiseño. The Luiseño lived in sedentary and independent village groups, each with specific subsistence territories encompassing hunting, food gathering, and fishing areas. Villages were usually located in valley basins, along creeks and streams adjacent to mountain ranges where water was available. Most inland populations had access to fishing and food gathering sites on the coast though economic and subsistence practices centered upon the seasonal gathering of acorns and seeds, and the hunting of deer and small mammals. More discussion on Tribal Cultural Resources is found in Section 3.18.

A study in 2006 (Onken et al. 2006) in the area directly southwest of the Project site along Murrieta Creek determined a high sensitivity for buried prehistoric and historic sites. The study also determined that locations underlain by deposits of the Pauba Formation had a much lower sensitivity because the age of the sediments are older than the evidence of human occupation in California. Therefore, the portion of the Project site underlain by Pauba Formation has a low potential to contain cultural material and the young alluvial valley deposits also have a low potential due to disturbance from farming and construction of the existing school.

The Cultural Resources Study includes a records search at the Eastern Information Center (EIC) of the California Historic Resources Information System (CHRIS) located at the University of California, Riverside. Additional record searches were conducted including the California State Historic Property Data File. The cultural resource records search indicates that the entire Project site has been surveyed previously and no cultural resources have been mapped on the Project site. Furthermore, a systematic pedestrian and reconnaissance level field survey of the Project site was conducted on October 15, 2019, which did not identify any evidence of cultural resources on the Project site.

Discussion

a) No Impact. A portion of the Project site is currently developed with the existing MCA campus and the other portion consists of turf fields. The campus was graded in the mid-1990s and constructed in the late 1990's and consists of portable buildings. The portable buildings (classrooms and offices) have no architectural value and given the time of construction are not considered historical. Therefore, no impact to historical resources would occur.

b) Less than Significant with Mitigation. Based on the analysis included in the Cultural Resources Study, the Project site has low potential for prehistoric archeological resources. The portion of the site underlain with Pauba Formation sandstone has low potential to contain prehistoric archaeological sites due the age of the sediments being older than the evidence of human occupation. The portion of the site with the young alluvial deposits also has low potential for prehistoric archaeological sites because this material has a history of disturbance from farming and construction of the existing school.

While the potential for archaeological resources is low, the Project site is located in an area of high tribal importance and history. Therefore, there is a potential for impacts to tribal cultural resources. Further discussion on potential impacts and mitigation measures to tribal cultural resources is included in Section 3.18.

Given the low potential for archaeological resources, the following **Mitigation Measure MM CUL-1** shall be implemented in conjunction with mitigation measures identified in Section 3.18.

MM CUL-1 *MVUSD shall retain a qualified archaeological monitor who shall prepare an Archaeological Resources Mitigation Monitoring Plan in consultation with the Native American Tribe. The qualified archaeological monitor shall attend all pre-grading meetings to inform the grading and excavation contractors of the archaeological resources mitigation program and shall instruct them with respect to its implementation. The qualified archaeological monitor shall be on site during the initial phases of clearing and rough grading and when grading occurs in locations/formations that could have archaeological resources. If archaeological resources are discovered and are in danger of loss and/or destruction, the qualified archaeological monitor shall recover them. In instances where recovery requires an extended salvage time, the qualified archaeological monitor shall be allowed to temporarily direct, divert or halt grading to allow recovery of resource(s) in a*

timely manner. Any newly discovered cultural resource deposits shall be subject to a cultural resources evaluation. A report, prepared by the archaeologist, documenting monitoring activities conducted by the qualified archaeologist/Native American monitor (established in Mitigation Measure MM TRC-1 below) shall be submitted to MVUSD within 60 days of the completion of grading. This report shall document the type of cultural resources recovered and the disposition of such resources. If no cultural resources are identified during the monitoring activities, a letter report shall be completed within 30 days of the completion of grading. The report shall document the type of monitoring activities conducted, report any problems or issues that occurred, and state clearly that no resources were identified. All reports produced shall be submitted to MVUSD, the Eastern Information Center, and the appropriate tribe(s).

Implementation of mitigation measure MM CUL-1 would reduce impacts to archaeological resources to less than significant.

c) Less than Significant. The Project site has a low potential for discovery of human remains. The portion of the site underlain with Pauba Formation sandstone has low potential to contain human remains because the sediments are older than the evidence of human occupation. The portion of the site with the young alluvial deposits also has low potential for human remains because this material has a history of disturbance from farming and construction of the existing school.

If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. In addition, according to the California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and unauthorized disturbance of Native American cemeteries is a felony (Section 7052).

Since the potential for encountering human remains is low and the discovery of human remains is governed by the State Health and Safety Code and Public Resources Code, impacts to human remains are less than significant.

3.6 Energy

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
ENERGY. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

An energy study, titled *Murrieta Canyon Academy Energy Analysis* dated May 5, 2020 (Appendix D) provides an analysis of energy usage associated with construction and the incremental increase in energy use associated with operation of the proposed Project. The Energy Analysis also analyzed if the energy usage amounts are efficient, typical, or wasteful for the land use type, in order to emphasize avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

California is one of the nation’s leading energy-producing states, and California per capita energy use is among the nation’s most efficient. Given the nature of the Project, three sources of energy are most relevant to the Project—namely, electricity and transportation fuel for vehicle trips associated with the Project.

The usage associated with electricity and natural gas use resources were calculated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2. Further, the Air Quality emissions CALEEMod output information was used for the energy analysis. The Project would generate additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel.

For the Project, the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas and oil; and
- Increasing reliance on renewable energy sources.

Discussion

a) Less Than Significant. The Project would impact energy resources during construction and operation. Energy resources that would be potentially impacted include electricity, natural gas, and petroleum-based fuel supplies and distribution systems. This analysis includes a discussion of the Project, with emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

Construction Energy

The construction activities for Project implementation includes site preparation and grading, building construction of approximately 41,500 square feet (sf) of classrooms and administrative offices, paving of parking lots and driveways, application of architectural coatings, and demolition of the existing portable classrooms and associated hardscape. The Project site would consume energy resources during construction in three (3) general forms:

1. Petroleum-based fuels used to power off-road construction vehicles and equipment on the Project site, construction worker travel to and from the Project Site, as well as delivery and haul truck trips (e.g. hauling of demolition material to off-site reuse and disposal facilities);
2. Electricity associated with the conveyance of water that would be used during Project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power; and,
3. Energy used in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Construction-Related Electricity

Energy use during the construction process, specifically the cost from on-site electricity consumption during construction of the proposed Project is based on the *2017 National Construction Estimator*, which includes the typical power cost per 1,000 square feet of building construction per month is estimated to be \$2.32. Construction activities are anticipated to occur over the course of 12-months to build the proposed Project with 41,500 square feet of classrooms and administrative offices, an associated parking lot, and other site improvements. The total power cost of the on-site electricity usage during the construction of the Project is estimated to be approximately \$1,155.36.

The Southern California Edison's (SCE) serves as the energy provider to the Project site and the general service rate schedule was used to determine the Project's electrical usage. As of January 1, 2020, SCE's general service rate is \$0.08 per kilowatt hours (kWh) of electricity. Per the Energy Analysis (Appendix D), the total electricity usage from on-site Project construction related activities is estimated to be approximately 14,461 kWh.

Construction-Related Transportation Energy

Petroleum-based fuel usage represents the highest amount of transportation energy potentially consumed during construction, which would be utilized by both off-road equipment operating

on the Project site and on-road automobiles transporting workers to and from the Project site and on-road trucks transporting equipment and supplies to the Project site.

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction. Eight-hour daily use of all equipment is assumed. The aggregate fuel consumption rate for all equipment is estimated at 18.5 horsepower hour per gallon (hp-hr-gal.), obtained from California Air Resources Board (CARB) 2018 Emissions Factors Tables. The calculations are based on all construction equipment being diesel-powered which is standard practice consistent with industry standards. Diesel fuel would be supplied by existing commercial fuel providers serving the City and region. Based on Project construction activities and Table 4-5 within the Energy Analysis Report (Appendix D), Project construction activities would consume an estimated 70,624 gallons of diesel fuel. Project construction would represent a “single-event” diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources.

It is assumed that all construction worker trips are from light duty autos (LDA) along area roadways. The data assumptions regarding Project related construction worker trips were based on CalEEMod defaults utilized within the Air Quality Impact Analysis (Appendix A). It is estimated that 8,174 gallons of fuel will be consumed related to construction worker trips during full construction of the Project. It should be noted that construction worker trips would represent a “single-event” gasoline fuel demand and would not require on-going or permanent commitment of fuel resources.

With respect to estimated Vehicle Miles Traveled (VMT), the construction vendor trips would generate an estimated 776,952 VMT along area roadways for the Project. It is assumed that 50% of all vendor trips are from medium-heavy duty trucks (MHDT), 50% are from heavy-heavy duty trucks (HHDT), and 100% of all hauling trips are from HHDTs. Vehicle fuel efficiencies for MHDTs and HHDTs were estimated using information generated within EMFAC2017. As generated by EMFAC2017, a fuel economy of MHDTs ranging from model years 2022 and 2023 are estimated to have fuel efficiencies of 10.01 mpg and 10.35 miles per gallon (mpg). It is estimated that 2,050 gallons of fuel will be consumed related to MHDTs from construction vendor trips based on the Table 4-7 found within the Energy Analysis Report (Appendix D).

As generated by EMFAC2017, a fuel economy of HHDTs ranging from model years 2022 and 2023 are estimated to have fuel efficiencies of 7.10 mpg and 7.42 mpg. It is estimated that 106,036 gallons of fuel will be consumed related to HHDTs from construction vendor trips based on the Table 4-8 found within the Energy Analysis Report (Appendix D).

The equipment used for Project construction would conform to CARB regulations and California emissions standards. Further, the Project does not require any unusual construction equipment that would be more energy intensive or would not conform to current emissions standards. The Project would utilize construction contractors which practice compliance with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. In addition, construction energy efficiencies and energy conservation would be implemented through bulk purchase, transport and use of construction materials.

Therefore, construction equipment anticipated to be utilized for the Project would not result in inefficient wasteful, or unnecessary consumption of fuel.

Operational Energy

Energy that would be consumed by operational energy for the proposed Project is traffic generated and estimated vehicle fuel economies of vehicles accessing the Project site. The data assumptions regarding Project related traffic trips were estimate on VMT, trip frequency and trip length as utilized within the Air Quality Impact Analysis (Appendix A).

Each classification of transportation corresponds to an estimated annual VMT with full-build-out of the Project. Based on the classification of the transportation vehicle, an average miles per gallon (mpg) of fuel economy is utilized to provide the gallons of fuel consumed by Project generated trips. Table 3.6-a below contains the information regarding operational energy demands.

Table 3.6-a. Project Generated Vehicle Annual Fuel Consumption (All Vehicles)

Vehicle	Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
Light-Duty Autos (LDA)	2,175,813	33.56	64,829
Light-Duty Trucks (LDT1)	143,772	28.01	5,132
Light-Duty Trucks (LDT2)	741,260	26.65	27,817
Medium-Duty Trucks (MDV)	446,363	21.30	20,956
Light-Heavy Duty Trucks (LDT1)	56,652	14.47	3,915
Light-Heavy Duty Trucks (LDT2)	19,061	14.99	1,271
Medium-Heavy Duty Trucks (MHDT)	69,820	10.35	6,744
Heavy-Heavy Duty Trucks (HHDT)	278,160	7.42	37,496
Other Buses (OBUS)	5,588	6.73	831
Urban Buses (UBUS)	4,549	5.00	909
Motorcycles (MCY)	17,879	38.26	467
School Buses (SBUS)	3,641	8.10	449
Motor Homes (MH)	3,562	6.21	574
Total (ALL VEHICLES)	3,966,119	-	171,391

Energy efficiency/energy conservation attributes of the Project would be complemented by increasingly stringent state and federal regulatory actions addressing vehicle fuel economies and vehicle emissions standards; and enhanced building/utilities energy efficiencies mandated under California building codes. The Project would not result in a substantial increase in demand or transmission service, resulting in the need for new or expanded sources of energy supply or new or expanded energy delivery systems or infrastructure because it would be served by the existing electric utilities as analyzed within *Section 3.19 Utilities and Service Systems*.

Project annual fuel consumption presented in Tables 3.6-a represents the maximums that would occur for the Project. Under future conditions, average fuel economies of vehicles accessing the Project site can be expected to improve as older, less fuel-efficient vehicles are removed from

circulation, and in response to fuel economy and emissions standards imposed on newer vehicles.

Summary

The estimated power cost of on-site electricity usage during the construction of the Project is assumed to be around \$1,155.36 and 14,461 kWh. Construction equipment used by the Project would result in single event consumption of approximately 70,624 gallons of diesel fuel. California Code of Regulations Title 13, Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Construction worker trips for full construction of the Project would result in the estimated fuel consumption of 8,174 gallons of fuel. Additionally, fuel consumption from construction vendor trips (MHDTs and HHDTs) will total approximately 108,036 gallons. Construction energy efficiencies and energy conservation would be achieved using bulk purchases, transport and use of construction materials.

As discussed above, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary; therefore, impacts related to construction energy would be less than significant.

The total estimated annual fuel consumption from Project operational generated VMT would result in a fuel demand 171,391 gallons of fuel. Trip generation and VMT generated by the Project are consistent with other residential and commercial uses of similar scale and configuration, as reflected respectively in the Institute of Transportation Engineers Trip Generation Manual and the Project operations would not inherently result in excessive and wasteful vehicle trips and VMT, nor associated excess and wasteful vehicle energy consumption.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. The Project would implement sidewalks, facilitating and encouraging pedestrian access. In addition, compliance with the California Green Building Standards Code would promote the use of bicycles as an alternative mean of transportation by providing short-term and/or long-term bicycle parking accommodations. Therefore, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

Natural gas would be supplied to the Project by SoCal Gas; electricity would be supplied by SCE. The Project proposes conventional residential and commercial uses reflecting contemporary energy efficient/energy conserving designs and operational programs. Uses proposed by the Project are not inherently energy intensive, and the Project energy demands in total would be comparable to, or less than, other projects of similar scale and configuration. Additionally, the Project would be required to comply with the applicable Title 24 standards which will further ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary.

As discussed above, Project operational energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary; therefore, impacts related to operational energy would be less than significant.

b) Less Than Significant. The proposed Project would adhere to the California Building Code requirements and would comply with 2019 Building and Energy Efficiency Standards and the 2019 California Green Building Standards requirements.

The Project would provide for, and promote, energy efficiencies equal to or beyond those required under other applicable federal and State of California standards and regulations, and in so doing would meet or exceed all California Building Standards Code Title 24 standards. Energy consumed by the Project's operation is calculated to be comparable to, or less than, energy consumed by other residential and commercial uses of similar scale and intensity that are constructed and operating in California. The Project would not result in the inefficient, wasteful, or unnecessary consumption of energy. Further, the Project would not cause or result in the need for additional energy producing facilities or energy delivery systems; therefore, impacts associated with the conflict with or obstruction of a state or local plan for renewable energy or energy efficiency would be less than significant.

3.7 Geology and Soils

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

A Geotechnical/Geologic Hazard Report was prepared by Leighton Consulting, Inc. on August 20, 2019 to determine potential impacts to geology and soils associated with the development of the proposed Project (Appendix E – Geotechnical/Geologic Hazards Report, Leighton Consulting, Inc., August 2019).

The Geotechnical Report included field exploration for the proposed buildings and parking areas, which consisted of the excavation of fourteen (14) borings within accessible areas of the site to explore subsurface conditions and provide basis for ground preparation and foundation design. Approximate locations of these exploratory borings are depicted on the Boring Location Map (Figure 3.7-1).

Based on the field results and observations, the Project site is underlain by alluvial deposits and dense formational materials locally known as Pauba Formation. Artificial fill associated with previous site grading covers the Project site. The Pauba Formation were encountered deeper than 10-feet below ground surface, below the artificial fill. These materials consist of damp to moist, very stiff to dense, silty to clayey sand and sandy to silty clay. The artificial fill soils were observed within the upper 10-feet below ground surface. The fill consists of moist, medium dense to dense, silty to clayey sand and sandy clay. The cross sections are included as Figure 3.7-2 and Figure 3.7-3, which provides the limits of the artificial fill and depth of the Pauba Formation.

No standing or surface water was observed on the Project site. In addition, no groundwater was encountered during the investigation to the total depth of 31.5 feet.

A Cultural/Paleontological Resources Survey was prepared by DUKECRM on October 18, 2019 to determine potential impacts to paleontological and cultural resources associated with the development of the Proposed Project (Appendix C – Cultural/Paleontological Resources Survey for the Murrieta Canyon Academy Project, DUKECRM, October 2019).

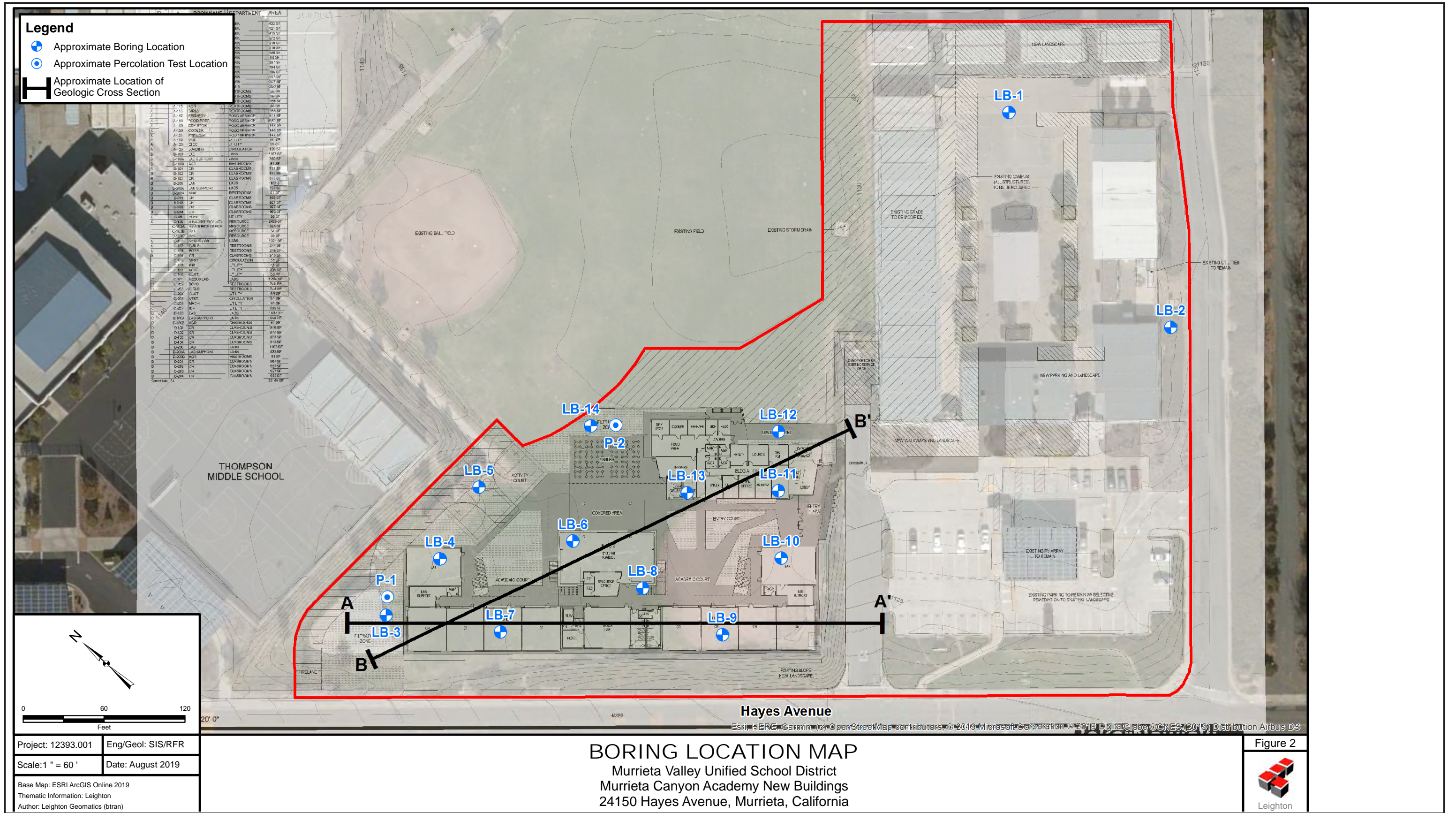
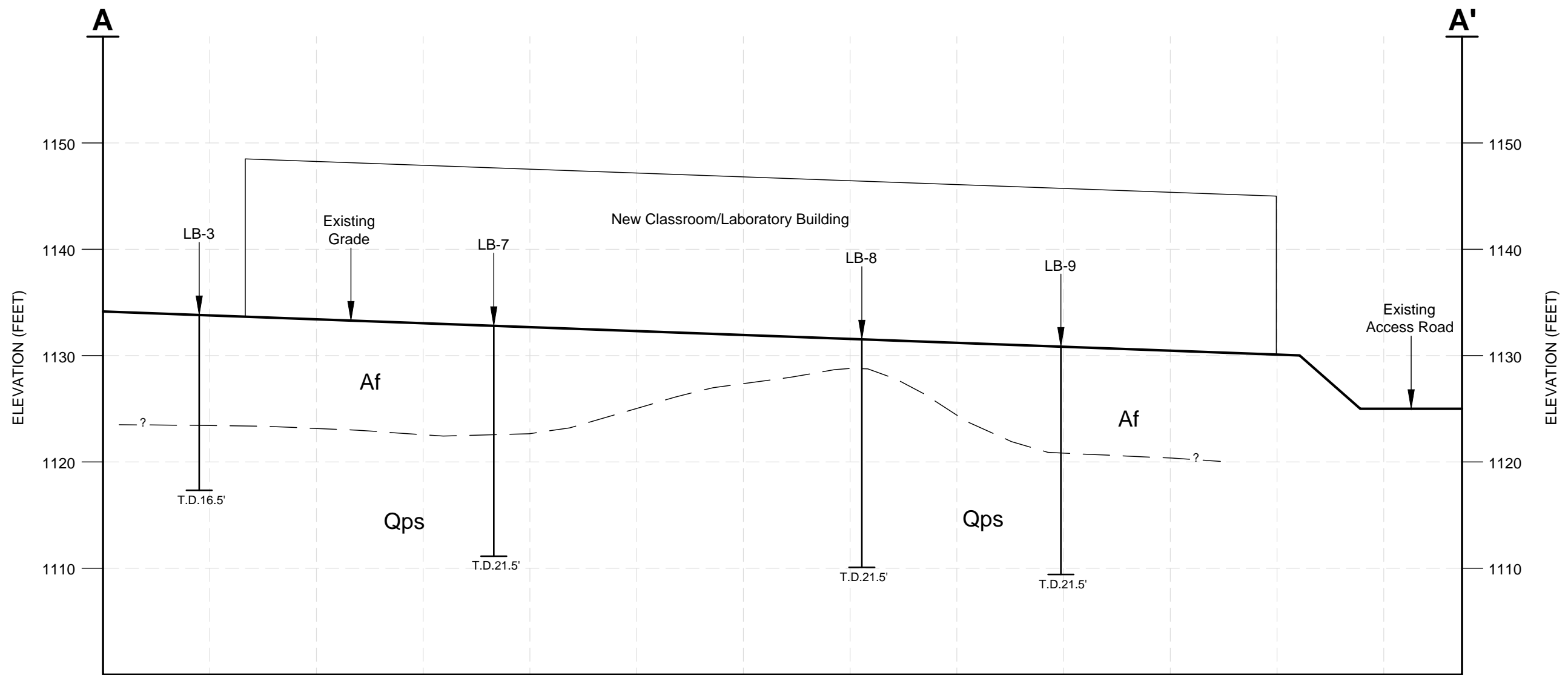


Figure 3.8-1: Boring Location Map
 Source: Leighton Consulting, Inc. (08/2019).

N.T.S.



GEOLOGIC CROSS SECTION A-A'
 Murrieta Valley Unified School District
 Murrieta Canyon Academy New Buildings
 24150 Hayes Avenue, Murrieta, California

Proj: 12393.001	Eng/Geol: SIS/RFR
Scale: V: 1"=10'	Date: August 2019


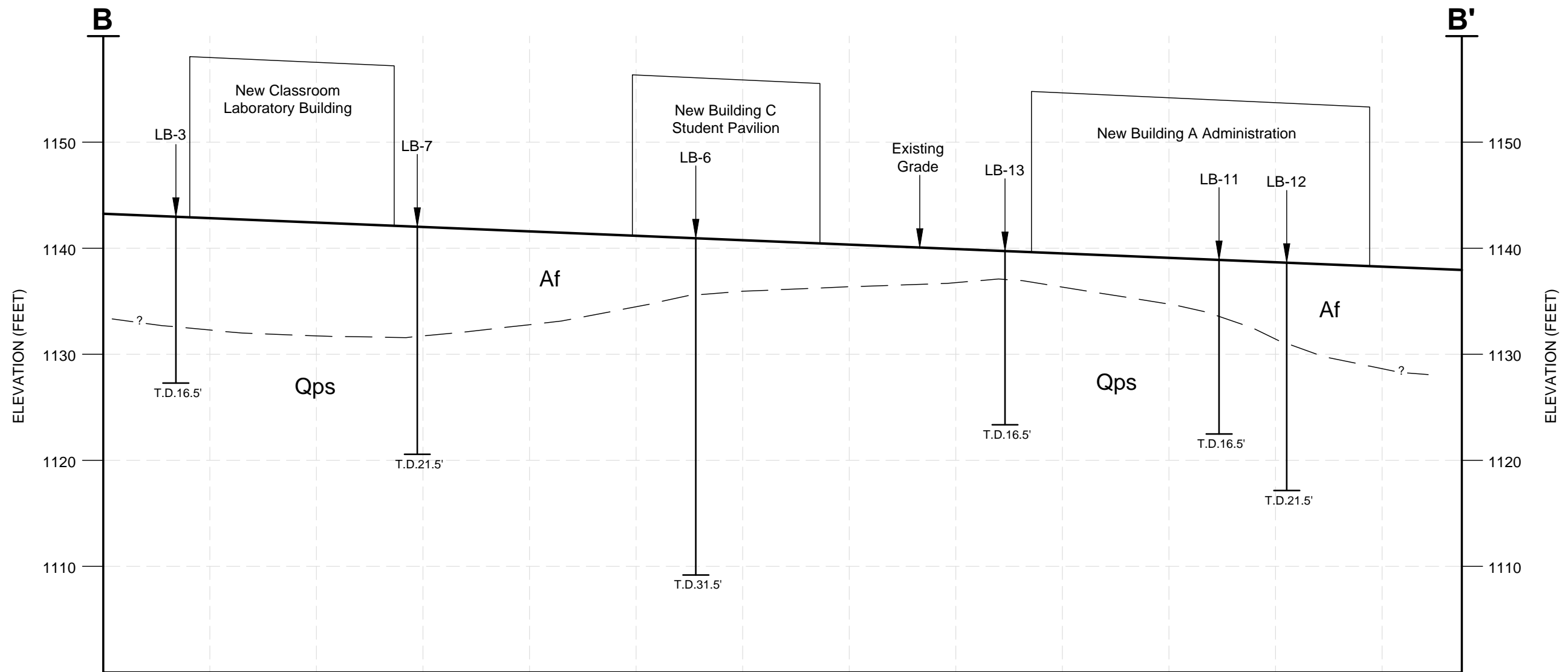
Figure 3A

 Leighton

Figure 3.8-2: Cross Section A-A
 Source: Leighton Consulting, Inc. (08/2019).

N.T.S.



GEOLOGIC CROSS SECTION B-B'

Murrieta Valley Unified School District
 Murrieta Canyon Academy New Buildings
 24150 Hayes Avenue, Murrieta, California

Proj: 12393.001

Eng/Geol: SIS/RFR

Scale: V: 1"=10'

Date: August 2019

Figure 3B



Leighton

Figure 3.8-3: Cross Section B-B

Source: Leighton Consulting, Inc. (08/2019).

N.T.S.

Discussion

a.i) Less Than Significant. The Project site, like the rest of southern California, is located within a seismically active region. The principal source of seismic activity is movement along the northwest-trending regional fault system. Based on published geologic maps, the Project site does not lie within a currently designated Alquist-Priolo Earthquake Fault Zone, as defined by the State of California in the Alquist-Priolo Earthquake Fault Zoning Act. Per the Geotechnical/Geologic Hazards Report, the site was cleared of any active faulting based on previous fault studies (Appendix E). Furthermore, no indications of faulting or fault related fissuring or fracturing was observed during the site investigation. The closest known active fault is the Temecula Segment of the Elsinore Fault Zone located approximately 0.60 miles northeast of the Project site. Since the Project site does not fall within a designated Alquist-Priolo Earthquake Fault and the site was previous cleared of any active faulting and confirmed with the current site investigation, impacts associated with the rupture of a known earthquake fault would be less than significant.

a.ii) Less Than Significant with Mitigation. The Project site, like the rest of southern California, is located within a seismically active region. The principal source of seismic activity is movement along the northwest-trending regional fault system. A Project specific ground motion analysis was performed in accordance with the 2016 California Building Code (CBC) following the procedures of ASCE 7-10 Publication, Section 21.2, as presented in Appendix C of the Geotechnical/Geologic Hazard Report (Appendix E). The analysis was performed using the computer program EZFRISK to estimate peak horizontal ground acceleration (PHGA) that could occur at the Project site. Various probabilistic density functions were used in the analysis to assess uncertainty inherent in the calculations including magnitude, distance, and ground motion. In accordance with the 2016 CBC, peak ground accelerations are estimated based on maximum considered earthquake ground motion having a 2 percent probability of exceedance in 50 years, or Project site specific seismic hazard analysis. Table 2 found in the Geotechnical/Geologic Hazards Report provides the Project site specific coefficients recommended for the Project. Per the recommendation within the Geotechnical/Geologic Hazards Report, the higher of the seismic coefficients shall be used in Project design. The Geotechnical/Geologic Hazard Report provides several recommendations regarding grading and earthwork, slope stability, seismic design, construction materials, geotechnical observations and testing and plan review. The Project shall adhere to the recommendations provided for the design and construction of the Project. The Project shall adhere to the current California Building Code (CBC). Further, the DSA provides a stringent review of all K-12 public schools, including structural design review and Fire and Life Safety Plan review in regard to potential ground shaking. Therefore, implementation of the recommendations provided in the Geotechnical/Geologic Hazards Report in accordance with **Mitigation Measure MM GEO-1** would reduce impacts to less than significant.

MM GEO-1 *The Project Applicant shall implement the recommendations contained in Appendix D of the Geotechnical/Geologic Hazards Report Proposed New Classroom Buildings Murrieta Canyon Academy prepared by Leighton Consulting,*

Inc. dated August 20, 2019 to reduce geologic hazards. Included in the report are site specific recommendations including grading and earthwork, foundation design, retaining walls, vapor retarder, footing setbacks, sulfate attack, and preliminary pavement design. The recommendations are located on pages 9 through 17 and Appendix D of the Geotechnical/Geologic Hazards Report, which is included as Appendix E of this Initial Study/Mitigation Negative Declaration.

a.iii-a.iv) Less than Significant. Ground shaking can induce secondary seismic hazards such as liquefaction, dynamic densification, and differential subsidence along ground fissures, seiches and tsunamis. Per the Geotechnical/Geologic Hazards Report, liquefaction-induced or dynamic dry settlement is not considered a hazard on the Project site due to the lack of shallow groundwater and underlying Pauba formation. There is no potential for lateral spreading and no active faults are known to cross or tend into the Project site per the Geotechnical/Geologic Hazards Report, prior reports, and field observations. The Project site is not located within a flood hazard zone or near a large body of water that would expose the Project to a potential seiche or tsunami. The Project site is relatively flat and slopes gently to the southeast, and the existing 2:1 fill slope along the south side of the campus is considered stable and is not considered susceptible to seismically induced landslides. Therefore, potential impacts associated with liquefaction or landslides is considered less than significant.

b) Less Than Significant. The Project site was previously graded and developed as a school campus and turf field. The underlying geologic unit was determined stable during original grading and development of the school campus. Construction activity associated with development may result in wind driven soil erosion and loss of topsoil due to grading activities. However, all construction and grading activities would comply with the Geotechnical/Geologic Report recommendations and the requirements of a NPDES General Construction Permit, which requires BMPs, including the use of gravel bags, slope planting, and storm drain inlet protection. The Project would implement BMPs to control stormwater runoff and protect water quality as outlined within *Section 3.10 Hydrology and Water Quality*, which would limit construction impacts as a result of the Proposed Project. Upon Project completion, the construction of the classroom buildings, paved surfaces, and landscaping, would prevent substantial erosion from occurring. Therefore, potential impacts associated with soil erosion would be less than significant.

c) Less Than Significant. Lateral spreading is a phenomenon that can occur during and shortly after triggering of liquefaction. A gentle slope in the ground surface or the presence of a slope face nearby can cause the ground to slide or spread on layers of liquefied soil. There is no potential for lateral spreading and no active faults are known to cross or tend into the Project site per the Geotechnical/Geologic Hazards Report, prior reports, and field observations. The Project site is relatively flat and slopes gently to the southeast. Furthermore, the Project site was previously graded as part of development of the MCA school campus. Additionally, the Project would be constructed in compliance with the recommendations in the Geotechnical/Geologic Hazards Report, Mitigation Measure GEO-1, and the CBC. Therefore, potential impacts associated with unstable soil would be less than significant.

d) Less Than Significant. Per the prepared Geotechnical/Geologic Hazards Report, the Project site is underlain by alluvial deposits and dense formational materials locally known as Pauba Formation. Artificial fill associated with previous site grading covers the Project site within the upper 10-feet below ground surface. The Pauba Formation was encountered deeper than 10-feet below ground surface, below the artificial fill. The artificial fill is expected to possess low to medium expansion potential per the Geotechnical/Geologic Hazards Report. The Pauba formation found below the artificial fill is expected to possess similar expansion potential as the artificial fill. The Project's design and construction considerations for expansive soils are anticipated to be nominal and as outlined within Mitigation Measure GEO-1, the Project would be constructed to the recommendations in the geotechnical report, as well as to the standards prescribed by the CBC. Therefore, potential impacts associated with expansive soils would be less than significant.

e) No Impact. The Project site would be served by a public sewer system. The Project does not include the use of septic tanks or alternative wastewater disposal systems. Therefore, no impacts associated with septic tanks or alternative wastewater disposal systems would occur.

f) Less Than Significant Impact with Mitigation. The Project site was previously graded and developed as a school campus and turf field. There are no unique geological features on the Project site.

DUKECRM performed a records search through a search of the online University of California Museum of Paleontology collections, San Diego Natural History Museum collections, Paleobiology Database, and FAUNMAP, and other published literature for nearby fossil localities in similar deposits for the Project site and a three-mile radius around the site's boundary. Further, the Western Science Center performed a paleontological records search to locate fossil localities within and in the vicinity of the Project site. The results of the records search provided multiple fossil localities within the Project vicinity, all occurring in the Pauba formation.

Due to the numerous nearby fossil localities in Pleistocene-age deposits identified in the Project vicinity, the Pauba Formation sandstone member (*Qpfs*) identified within the Project is assigned a high paleontological sensitivity. Holocene-age deposits are too young to have accumulated or preserved enough biologic material to contain fossil resources and are assigned a low paleontological sensitivity as a result. However, Holocene-age deposits can transition at depth into older, Pleistocene-age deposits with a high paleontological sensitivity. As a result, the Holocene-age young alluvial valley deposits (*Qyv*) in the Project are assigned a high sensitivity with depth.

The entire site was surveyed for cultural resources and no new paleontological resources were discovered during the field survey.

Based on the Geotechnical Report recommendations, the building footprint and the depth of soil disturbances shall occur within the upper 3 feet of soils, or 2 feet below bottom of footings/slab-

on-grade, whichever is deeper, should be removed/over-excavated and recompact. If the bottom of footings extend deeper than 3 feet below existing grade, no over-excavation would be required provided the exposed bottom of excavation is scarified and recompact to minimum of 90 percent of the ASTM D 1557 and approved by the geotechnical consultant. While no previously documented paleontological resources are recorded within the Project site, paleontological resources were discovered adjacent to the Project site within the MVUSD campus complex. Therefore, the potential is high for paleontological resources to be present at depth within the boundaries of the Project site, due to the high paleontological sensitivity within the Pauba formation. As a result, Mitigation Measure MM GEO-2 would require a paleontological monitor be present to observe ground disturbing activities in the northwestern half of the Project or when grading occurs within the Pauba formation.

MM GEO-2 *A paleontological monitor shall be present to observe ground disturbing activities in the northwestern half of the Project or when grading occurs within the Pauba formation. The paleontological monitor shall work under the direct supervision of a qualified paleontologist (B.S. /B.A. in geology, or related discipline with an emphasis in paleontology and demonstrated experience and competence in paleontological research, fieldwork, reporting, and curation).*

- 1. The qualified paleontologist shall be on-site at the pre-construction meeting to discuss monitoring protocols.*
- 2. Paleontological monitoring shall start at full-time. If no paleontological resources are discovered after half of the ground disturbance has occurred, monitoring can be reduced to part-time or spot-checking.*
- 3. The paleontological monitor shall be empowered to temporarily halt or redirect grading efforts if paleontological resources are discovered.*
- 4. In the event of a paleontological discovery the paleontological monitor shall flag the area and notify the construction crew immediately. No further disturbance in the flagged area shall occur until the qualified paleontologist has cleared the area.*
- 5. In consultation with the qualified paleontologist the paleontological monitor shall quickly assess the nature and significance of the find. If the specimen is not significant it shall be quickly removed, and the area cleared.*
- 6. If the discovery is significant the qualified paleontologist shall notify the MVUSD immediately.*
- 7. In consultation with MVUSD, the qualified paleontologist shall develop a plan of mitigation which will likely include salvage excavation and removal of the find, removal of sediment from around the specimen (in the laboratory), research to identify and categorize the find, curation of the find in a local qualified repository, and preparation of a report summarizing the find.*

With the implementation of MM GEO-2, impacts to unique paleontological and geological resources would be less than significant.

3.8 Greenhouse Gas Emissions

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

A greenhouse gas study, titled *Murrieta Canyon Academy, Greenhouse Gas Analysis* dated May 6, 2020 (Appendix F) provides an analysis to evaluate new Project-related construction and operational emissions and determine the level of greenhouse gas (GHG) impacts as a result of constructing and operating the proposed Project.

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. The majority of scientists believe that the climate shift taking place since the Industrial Revolution is occurring at a quicker rate and magnitude than in the past. The GCC is the result of increased concentrations of GHGs in the earth’s atmosphere, including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated gases. The majority of scientists believe that this increased rate of climate change is the result of GHGs resulting from human activity and industrialization.

GHGs trap heat in the atmosphere, creating a GHG effect that results in global warming and climate change. Many gases demonstrate these properties; however, analysis includes the emissions of CO₂, CH₄, and N₂O because these gases are the primary contributors to GCC from development projects. Although there are other substances such as fluorinated gases that also contribute to GCC, these fluorinated gases were not evaluated as their sources are not well-defined and do not contain accepted emissions factors or methodology to accurately calculate these gases.

Regulations

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. The Project would be required to comply with regulations imposed by the State of California and the South Coast Air Quality Management District (SCAQMD) aimed at the reduction of air pollutant emissions. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of GHG emissions include:

- Global Warming Solutions Act of 2006 (Assembly Bill (AB) 32).
- Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (Senate Bill (SB) 375).
- Pavley Fuel Efficiency Standards (AB 1493). Establishes fuel efficiency ratings for new vehicles.
- California Building Code (Title 24 California Code of Regulations (CCR)). Establishes energy efficiency requirements for new construction.
- Appliance Energy Efficiency Standards (Title 20 CCR). Establishes energy efficiency requirements for appliances.
- Low Carbon Fuel Standard (LCFS). Requires carbon content of fuel sold in California to be 10 percent (%) less by 2020.
- California Water Conservation in Landscaping Act of 2006 (AB 1881). Requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010 to ensure efficient landscapes in new development and reduced water waste in existing landscapes.
- Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions.
- Renewable Portfolio Standards (SB 1078 – also referred to as RPS). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 % by 2010 and 33% by 2020.
- California Global Warming Solutions Act of 2006 (SB 32). Requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15.

Further detail regarding the specifics of the Regulations can be found in the Greenhouse Gas Analysis in Appendix F. Regulations that will affect the Project’s emissions are accounted for in the Project’s GHG emissions calculations.

The California State Legislature enacted AB 32, which requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. “GHGs” as defined under AB 32 include CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆. Pursuant to AB 32, California Air Resource Board (CARB) adopted regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions.

CARB’s Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State’s emissions to 1990 levels by the year 2020 to comply with AB 32, also referred to as 2008 Scoping Plan. In November 2017, CARB released the *2017 Scoping Plan Update*, which identifies the State’s post-2020 reduction strategy. The *2017 Scoping Plan Update* reflects the 2030 target of a 40% reduction below 1990 levels. Key programs that the 2017 Scoping Plan builds upon include the Cap-and-Trade Regulation, the LCFS (Low Carbon Fuel Standard or Executive Order S-01-07), and much cleaner cars, trucks and freight movement, utilizing cleaner, renewable energy, and strategies to reduce CH₄ emissions from agricultural and other wastes.

Levels of Significance

Neither MVUSD nor the City of Murrieta (City) have adopted a threshold of significance for GHG emissions. A widely accepted screening threshold used by the County of Riverside and numerous cities in the South Coast Air Basin (SCAB) and is based on the SCAQMD staff's proposed GHG screening threshold for stationary source emissions for non-industrial projects, as described in the SCAQMD's *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans* ("SCAQMD Interim GHG Threshold"). As such, a screening threshold of 3,000 MTCO₂e/yr is applied herein, which MVUSD as the CEQA Lead Agency is relying on to determine the potential impacts for GHG emissions.

Based on guidance from the SCAQMD, if a non-industrial project would emit stationary source GHGs less than 3,000 MTCO₂e/yr, the project is not considered a substantial GHG emitter and the GHG impact is less than significant, requiring no additional analysis and no mitigation. On the other hand, if a non-industrial project would emit stationary source GHGs in excess of 3,000 MTCO₂e/yr, then the project could be considered a substantial GHG emitter, requiring additional analysis and potential mitigation.

Furthermore, in order to aggressively address the threats of global climate change, the City prepared a Climate Action Plan (CAP), which provides a framework for reducing GHG emissions and managing resources to best prepare for a changing climate. The CAP recommends GHG emissions targets that are consistent with the reduction targets of the State of California and presents a number of strategies that will make it possible for the City to meet the recommended targets. Projects that demonstrate consistency with the strategies, actions, and emission reduction targets contained in the CAP would have a less than significant impact on climate change.

The proposed Project cannot generate enough GHG emissions to affect a discernible change in global climate. However, the proposed Project may participate in the potential for GCC by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on GCC.

The latest version of CalEEMod has been used for this Project to determine GHG emissions. Output from the model runs for construction and operational activity are provided in Appendices 3.1 and 3.2 of the Greenhouse Gas Analysis (Appendix F). CalEEMod includes GHG emissions from the following source categories: construction, area, energy, mobile, waste, water. The EPA approved the 2017 version of the Emissions FACTor model (EMFAC) web database for use in State Implementation Plan and transportation conformity analyses. Therefore, the analysis utilizes annual EMFAC2017 emission factors in order to derive vehicle emissions associated with Project operational activities.

Discussion

a) Less Than Significant. Project grading and construction operations will begin on the new buildings while the original buildings remain in operation. Following the completion of the

proposed buildings the original buildings and parking lot will be demolished and the construction of the new parking lot will be completed. Following the completion of the new buildings and parking lot, new turf fields for Thompson Middle School will be constructed to replace the fields lost during construction of the new MCA buildings. The prepared Greenhouse Gas Analysis analyzed both the construction emissions and operational emissions.

Construction Emissions

For construction phase emissions, GHGs are quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project, the SCAQMD recommends calculating the total GHG emissions for the construction activities, dividing it by a 30-year project life then adding that number to the annual operational phase GHG emissions. Construction emissions were amortized over a 30-year period and added to the annual operational phases GHG emissions. The construction emissions are presented in Table 3.8-a below.

Table 3.8-a Amortized Annual Construction Emissions

Year	Emissions (MT/yr)			
	CO ₂	CH ₄	N ₂ O	Total CO ₂ E
2022	401.68	0.10	0.00	404.21
2023	409.19	0.09	0.00	411.41
Total Annual Construction Emissions	810.87	0.19	0.00	815.62
Amortized Construction Emissions (MTCO₂e)	27.03	0.01	0.00	27.19
<i>Source: CalEEMod outputs are presented in Appendix 3.1 of the Greenhouse Gas Analysis (Appendix F).</i>				

Operational Emissions

Operational activities associated with the proposed Project will result in emissions of CO₂, CH₄, and N₂O. Operational emissions would be expected from the following primary sources: Area Source Emissions; Energy Source Emissions; Mobile Source Emissions; Water Supply, Treatment, and Distribution; and Solid Waste. Per the Greenhouse Gas Analysis each of the source emissions were calculated based on defaults provided within CalEEMod.

The annual GHG emissions associated with the operation of the proposed Project are estimated to be 1,700.39 MTCO₂e per year as summarized in Table 3.8-b below.

Table 3.8-b. Project Greenhouse Gas Emissions

Emission Source	Emissions (MT/yr)			
	CO ₂	CH ₄	N ₂ O	Total CO ₂ e
Annual construction-related emissions amortized over 30 years	27.03	0.01	0.00	27.19
Area Source	2.30E-03	1.00E-05	0.00	2.45E-03
Energy Source	90.43	3.41E-03	9.20E-04	90.79
Mobile Source	1,533.76	0.05	0.00	1,535.08

Emission Source	Emissions (MT/yr)			
	CO ₂	CH ₄	N ₂ O	Total CO ₂ e
Waste Source	10.95	0.65	0.00	27.13
Water Usage	18.70	0.05	1.22E-03	20.20
Total CO₂e (All Sources)	1,700.39			
<i>Source: CalEEMod outputs are presented in Appendix 3.2 of the Greenhouse Gas Analysis (Appendix F).</i>				

The Project construction and operational GHG emissions would result in 1,700.39 MTCO₂e/yr, well below the 3,000 MTCO₂e/yr threshold. Therefore, impacts would be less than significant.

b) Less Than Significant. A lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from GHG emissions pursuant to 15604.4 of the California Environmental Quality Act (CEQA) Guidelines. Therefore, the Project's consistency with Assembly Bill 32, State Bill 32, and the Southern California Association of Governments (SCAG) 2016-2040 Final 2016-2040 Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS) are discussed within Table 3.5 of the Greenhouse Gas Analysis (Appendix F). Further, the Project is consistent with the SB 32 (2017 Scoping Plan), which also satisfies consistency with AB 32 since the 2017 Scoping Plan is based on the overall targets established by AB 32. Project consistency with SB 32 and 2016-2040 RTP/SCS is evaluated within Table 3-5 of the Greenhouse Gas Analysis.

As summarized in Table 3-5 of the Greenhouse Gas Analysis (Appendix F), the Project is consistent with the provisions of the 2017 Scoping Plan and 2016-2040 RTP/SCS, which supports seven of the action categories. In addition, the Project would not conflict with any of the provisions of the 2017 Scoping Plan and 2016-2040 RTP/SCS. Further, recent studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40% below 1990 levels by 2030.

The City of Murrieta CAP recommends GHG emissions targets that are consistent with the reduction targets of the State of California and presents a number of strategies that would make it possible for the City to meet the recommended targets. As indicated in Table 3-6 of the Greenhouse Gas Analysis (Appendix F), the proposed Project would be consistent with, or otherwise would not conflict with, the CAP's strategies, goals, and measures.

The Project would not conflict with any of the provisions of the 2017 Scoping Plan and 2016-2040 RTP/SCS and supports seven of the action categories. In addition, the Project would be compliant with the goals and objectives set forth in the City of Murrieta's CAP. Therefore, Project consistency with the 2017 Scoping Plan and 2016-2040 RTP/SCS and CAP would result in a less than significant impact with respect to GHG emissions.

3.9 Hazards and Hazardous Materials

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

A Phase I Environmental Site Assessment (ESA) was prepared for the Project site by Leighton Consulting, Inc. in January 2020 (Appendix G). The Phase I ESA consists of historical property use research, a regulatory agency records search, and site reconnaissance to identify potential

recognized environmental conditions on the Project site. The Project would occur in the general location of the existing turf fields associated with Thompson Middle School and the existing MCA campus. The area was graded at the time of original grading of the MCA and Thompson Middle School.

Prior to the original grading of MCA, Thompson Middle School, and Murrieta Valley High School, each prepared project specific Phase 1 ESAs for the respective school sites. Any required remediation and treatment for the school sites were implemented where needed and the sites were determined to be suitable for construction of schools. Since the Project would occur within the turf field and existing MCA campus and includes disturbance to native soil, a new Phase 1 ESA was prepared. Further, since the site will serve as a school, the Project requires the review and approval by the Division of the State Architect (DSA), which provides design and construction oversight for Kindergarten through Grade 12 schools, community colleges, and other various state-owned facilities.

Discussion

a – b) Less than Significant. Construction of the Project would entail transport of potentially hazardous materials, including gasoline, asphalt, oil solvents, and paint associated with construction activities. Proper BMPs and hazardous material handling protocols would be required during construction to ensure safe storage, handling, transport, use, and disposal of all hazard materials during the construction phase of the new MCA buildings. This is common practice for all construction sites. Construction would also be required to adhere to standards set forth by the DSA, as well as state and federal health and safety requirements that are intended to minimize hazardous materials risks to the public, such as California Occupational Safety and Health Administration (OSHA) requirements, the Hazardous Waste Control Act, the California Accidental Release Prevention program, and the California Health and Safety Code.

Operations of the MCA would not involve the routine transport, use, or disposal of hazardous materials in significant quantities. Hazardous materials would be limited to private use of commercially available cleaning products, landscaping chemicals and fertilizers, and various other commercially available substances. These substances are required to comply with guidelines to minimize health risk to the public associated with hazardous materials. The Project could also use limited quantities of hazardous materials in classroom laboratory settings under the guidance of a teacher.

No additional remediation measures were required per the Phase 1 ESA. Compliance with the state and federal regulations and incorporation of any recommendations from DSA would ensure that risks resulting from the routine transportation, use, storage, or disposal of hazardous materials or hazardous wastes associated with construction of the proposed Project would be less than significant.

c) No Impact. The proposed Project is a school site and operations of the Project would not generate hazardous emissions or require the handling of acutely hazardous materials, substances, or waste. The Project could use limited quantities of hazardous materials in

classroom laboratory settings under the guidance of a teacher. However, this does not constitute an impact associated with the release of hazardous materials. DSA has already reviewed the Project site as suitable for a school use. DSA will conduct another review prior to construction of the Project. Therefore, no impact would occur with the implementation of the Project.

d) No Impact. Prior to the original grading of MCA, Thompson Middle School, and Murrieta Valley High School, each prepared project specific Phase 1 ESAs for the respective school sites. Any required remediation and treatment for the school sites were implemented where needed and the sites were determined to be suitable for construction of schools. Since the Project would occur within the turf field and existing MCA campus and includes disturbance to native soil, a new Phase 1 ESA was prepared. According to the new Phase 1 ESA, the site is not located on a hazard materials site pursuant to Government Code Section 65962.5. Therefore, no impact would occur.

e) No Impact. The Project site is not located in an airport land use plan or near a private or public airstrip. The closest airport is French Valley Airport located 5.86 miles from the Project site. No impact would occur.

f) No Impact. The project site is current developed with an existing school site. Emergency access routes have already been established. The Project proposes to construct a new school campus adjacent to the existing campus and replace the existing campus with parking and ballfields. The Project would not change any street circulation patterns that could alter the emergency access routes. On-site circulation of the Project will differ from the current MCA campus design; however, the on-site circulation patterns will be reviewed by DSA to ensure emergency access and evacuation routes are sufficiently provided. No impact would occur.

g) No Impact. The Project site is located in an urban area, surrounded by existing development, and not adjacent to wildlands that could pose a fire hazard. Furthermore, the site is not mapped as a High Fire Zone by the City of Murrieta or as a Very High Fire Hazard Severity Zone by the State. Lastly, the Project site has been previously approved by DSA as a school site and the Project will be further reviewed by DSA before approval to construct is granted. No impact would occur.

3.10 Hydrology and Water Quality

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

A preliminary Hydrology Memorandum was completed for the Project site to determine any potential impacts associated with drainage (Appendix H – Hydrology for Murrieta Canyon Academy, Epic Engineers).

A Project Specific Water Quality Management Plan was completed to determine potential impacts associated with water quality (WQMP) was prepared by EPIC Engineers (Appendix I – Project Specific Water Quality Management Plan, EPIC Engineers, October 2019).

The Project site includes buildings, hardscape, parking lot, and turf field and contains no surface water bodies. The Project site includes existing storm drain inlets and discharges into the City of Murrieta storm water system, with the following receiving waters downstream: Murrieta Creek, Santa Margarita River (upper and lower), and Santa Margarita Lagoon. While the Project is proposed to be constructed in the general location of the existing turf fields associated with Thompson Middle School, new turf fields for Thompson Middle School will be constructed north of the new buildings.

Discussion

a) Less Than Significant. Project operations would not discharge waste, therefore there would be no operational impacts to water quality or waste discharge. During the grading and construction activities, the work area would consist of disturbed soil and Best Management Practices (BMPs) would be implemented to manage the disturbed soils and maintain water quality standards. Implementation of BMPs and standard construction practices and compliance program would ensure that the construction activities do not violate any water quality standards. Therefore, impacts would be less than significant for Project implementation.

b) Less than Significant. Construction and operation of the proposed Project would not involve new groundwater wells or require groundwater supplies from existing wells. The Project site is not considered a groundwater recharging area. In addition, the proposed impervious surface area (111,513 square feet) would generally remain the same as the existing impervious surface area (111,061 square feet). Furthermore, Project would not introduce any new source of waste discharge or new contaminants that would reach water resources. Therefore, the Project would not decrease groundwater supplies or interfere with groundwater recharge and impacts would be less than significant.

c.i – c.iv) Less Than Significant. The Project site has been previously graded and drainage patterns have been established. The overall area of impervious surface associated with the proposed Project generally remains the same as the existing conditions. The proposed Project has eight Drainage Areas (DA) (Figure 3.10-1). The drainage areas include the following:

- DA-1 includes the proposed buildings, courtyard, fire lane, and northeastern parking lot totaling 3.62 acres.
- DA-2 includes the front courtyard and planters totaling 0.31-acres.
- DA-3 includes the south existing parking lot and planters totaling 0.40-acres.
- DA-4 includes the proposed drive aisle and sidewalk totaling 0.19-acres.
- DA-5 includes the 0.14-acre south slope of proposed building drains, which currently drains onto Hayes Avenue.
- DA-6 includes the 0.20-acre south slope of existing parking lot drains, which currently drains onto Hayes Avenue.

- DA-7 includes the 0.13-acre area southeastern side of the Project site, which currently drains to the existing access road.
- DA-8 includes the 0.14-acre area northeastern side of the Project site, which currently drains to the existing access road.

With the construction of the proposed Project, DA-1, DA-2, and DA-3 would require minor BMPs to prevent stormwater runoff offsite. DA-1 and DA-2 would flow into new catch basins, which would convey stormwater runoff through a new stormdrain into the proposed biofiltration systems, where it would be treated prior to leaving the site. DA-1 includes the construction of a biofiltration BMP with partial infiltration basin per the Riverside County – Low Impact Development BMP Design Handbook located north of the new buildings. Stormwater runoff within DA-2 would flow into proposed catch basins within the drainage area and will be conveyed through a new storm drain line to a bio-clean biofiltration system. BMP implementation within DA-3 includes the installation of a catch basin filter to treat stormwater flows. However, the overall stormwater runoff pattern would remain as existing conditions and flow into an existing curb inlet.

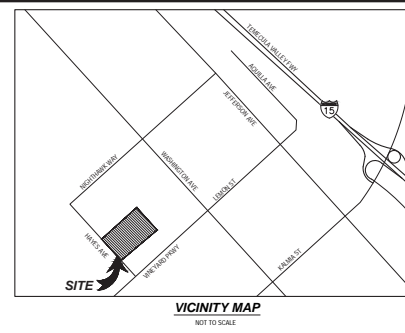
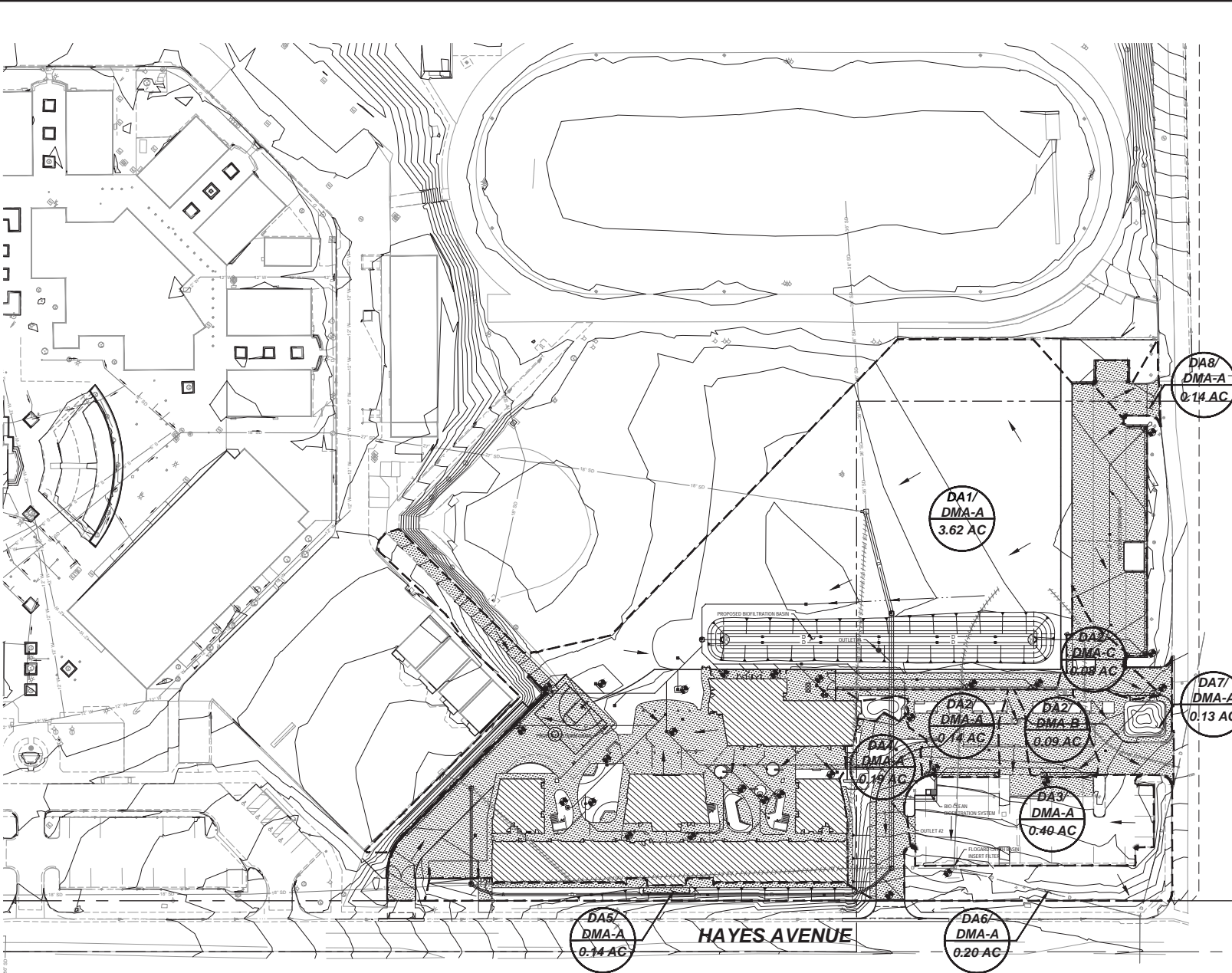
Stormwater runoff within DA-4 through DA-8 would remain the same as the existing conditions. The proposed biofiltration systems within DA-1 through DA-3 provide the necessary capacity required for the minor revision in the drainage areas for stormwater runoff and implementation of the Project. Therefore, potential impacts associated with an increased rate or amount of surface runoff would be less than significant.

The Project would result in a minor increase in impervious surface, however several BMPs would be implemented to detain the stormwater onsite to reduce the peak discharge equal to existing conditions. The existing system has the capacity to serve the minor increase of stormwater runoff with the implementation of the proposed BMP measures and existing water quality facilities. Non-structural BMPs such as common area landscape maintenance and litter control would also contribute towards runoff control and water quality protection. In addition, the proposed Project would be required to comply with the National Pollution Discharge Elimination System (NPDES) permit requirements to reduce any potential water quality impacts. The Project would not create or contribute runoff water that would exceed the capacity of the drainage systems or provide additional sources of polluted runoff. Therefore, impacts would be less than significant.

d) No Impact. The Project site is not located within a FEMA-mapped flood hazard zone. Additionally, the project site is located over 22 miles from the Pacific Ocean and therefore not subject to a seiche, tsunami, or mudflow. The closest large body of water is Skinner Lake and Diamond Valley Reservoir located approximately 9 miles and 11 miles respectively from the project site. Therefore, no impact would occur with the implementation of the Project.

e) No Impact. MCA and the adjacent turf fields have been previously graded and drainage patterns established. The Project results in minor revisions to existing drainage patterns, however with the implementation of the biofiltration systems, the existing storm drain system has sufficient capacity to serve the proposed Project. In general, the proposed Project impervious

surface area (111,513 square feet) would remain nearly the same as the existing impervious surface area (111,061 square feet). The minor change in pervious area is not sufficient to impact groundwater recharge. Furthermore, the Project site is not considered a groundwater recharging area and would not conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan; therefore, no impact would occur with the implementation of the Project.



IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES

APPL # _____
AC _____ FLS _____ SS _____
DATE: _____

MURRIETA VALLEY UNIFIED SCHOOL DISTRICT
MURRIETA CANYON ACADEMY
LEGEND: MURRIETA, CA 92554

- KEYNOTES:
- IMPERVIOUS AREA
 - DIRECTION OF SURFACE FLOW
 - PROPOSED STORM DRAIN PIPE PER UTILITY PLAN
 - LIMITS OF CONSTRUCTION DRAINAGE AREA BOUNDARY
 - LA LANDSCAPED AREA
 - XX-X DENOTES DRAINAGE AREA AND ACREAGE
 - X.XX AC

RECEIVING WATER BODIES
MURRIETA CREEK
UPPER SANTA MARGARITA RIVER
LOWER SANTA MARGARITA RIVER

PROJECT AREA
TOTAL PROJECT AREA: 230,882 SQ. FT. (5.14 ACRES)
IMPERVIOUS AREA: 113,113 SQ. FT. (2.58 ACRES)
PERVIOUS AREA: 117,769 SQ. FT. (2.66 ACRES)

NOTE
THE PROPOSED PROJECT HAS EIGHT DRAINAGE AREAS AND STORMWATER RUNOFF FROM DA1 SHEET FLOWS INTO PROPOSED CATCH BASIN THROUGHOUT THE DRAINAGE AREA. STORMWATER RUNOFF WILL BE COLLECTED THROUGH PROPOSED STORM DRAIN LINES INTO THE PROPOSED BASIN. A MEDIA FILTRATION WITH PARTIAL INFILTRATION BASIN THE STORMWATER WILL FILTER THROUGH 18" OF NON-FLOATING HARDWOOD MELCH 3/4" OF ENGINEERED MEDIA SOIL. PER THE BERKESELE COUNTY LOW IMPACT DEVELOPMENT (LID) DESIGN HANDBOOK AND 18" OF AN OPEN GRADED ASTM #31 STONE LAYER BEFORE COLLECTING THROUGH A PERFORATED PIPE AND INTO OUTLET #1. THE DOW FLOW DA1 IS 5.4% GRADE FEET. THE DESIGN VOLUME FOR THE PROPOSED INFILTRATION WITH PARTIAL INFILTRATION BASIN IS 7,700 CUBIC FEET. STORMWATER GREATER THAN THE DOW FLOW WILL OUTLET THROUGH A TYPE X INLET PER RECORD STANDARD. THE DESIGN FOR THE MEDIA FILTRATION BASIN MEETS HYDROLOGICAL REQUIREMENTS.

STORMWATER RUNOFF FROM DA2 SHEET FLOWS SOUTH INTO PROPOSED CATCH BASIN IN THE DRAINAGE AREA. STORMWATER RUNOFF WILL BE COLLECTED THROUGH PROPOSED STORM DRAIN LINES INTO THE PROPOSED BASIN. A BIO-CLEAN INFILTRATION SYSTEM.

STORMWATER RUNOFF FROM DA3 SHEET FLOWS SOUTH INTO AN EXISTING CURB INLET. THIS DRAINAGE AREA CANNOT BE COLLECTED INTO THE PROPOSED BASIN. SO WE PROPOSED A CATCH BASIN INLET FILTER TO TREAT THE FLOWS. THE DESIGN FLOW RATE FOR DA3 IS 1.1 CFS AND THE FILTERED FLOW RATE OF THE CATCH BASIN INLET FILTER IS 1.5 CFS.

STORMWATER RUNOFF FROM DA4 CANNOT BE COLLECTED INTO ONSITE BASIN. STORMWATER RUNOFF FLOWS SOUTH TOWARDS HAYES AVENUE AND LETS CAPTURED BY A FRENCH DRAIN ON SITE BEFORE IT HAS A CHANCE TO OUTLET FORTHWARD. STORMWATER RUNOFF WILL BE COLLECTED INTO THE EXISTING STORM DRAIN PIPE VIA A PROPOSED STORM DRAIN LINE.

STORMWATER RUNOFF FROM DA5 CANNOT BE COLLECTED INTO ONSITE BASIN. STORMWATER RUNOFF WILL SHEET FLOW SOUTH DOWN THE SLOPE ONTO HAYES AVENUE ALLEY IN THE EXISTING CONDICTION.

STORMWATER RUNOFF FROM DA6 CANNOT BE COLLECTED INTO ONSITE BASIN. STORMWATER RUNOFF WILL SHEET FLOW SOUTH DOWN THE SLOPE ONTO HAYES AVENUE ALLEY IN THE EXISTING CONDICTION.

STORMWATER RUNOFF FROM DA7 CANNOT BE COLLECTED INTO ONSITE BASIN. STORMWATER RUNOFF WILL SHEET FLOW SOUTH ONTO THE ONSITE ALLEY WAY ALY IN THE EXISTING CONDICTION.

STORMWATER RUNOFF FROM DA8 CANNOT BE COLLECTED INTO ONSITE BASIN. STORMWATER RUNOFF WILL SHEET FLOW ONTO THE ONSITE ALLEY WAY ALY IN THE EXISTING CONDICTION.

DRAINAGE AREAS		
AREA	PERVIOUS	IMPERVIOUS
DA-1	2.04 ACRES	1.58 ACRES
DA-2	0.04 ACRES	0.27 ACRES
DA-3	1.02 ACRES	0.98 ACRES
DA-4	0.04 ACRES	0.13 ACRES
DA-5	0.10 ACRES	0.08 ACRES
DA-6	0.18 ACRES	0.02 ACRES
DA-7	0.02 ACRES	0.10 ACRES
DA-8	0.10 ACRES	0.04 ACRES

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731 North Avenue, Suite A, San Diego, California 92101
619-705-2450
www.bn-designstudio.com

NO.	DATE	ISSUE	PROJECT NO.
1	12/15/2019	104.13	104.13
2	12/15/2019	104.13	104.13

SITE SPECIFIC DATA

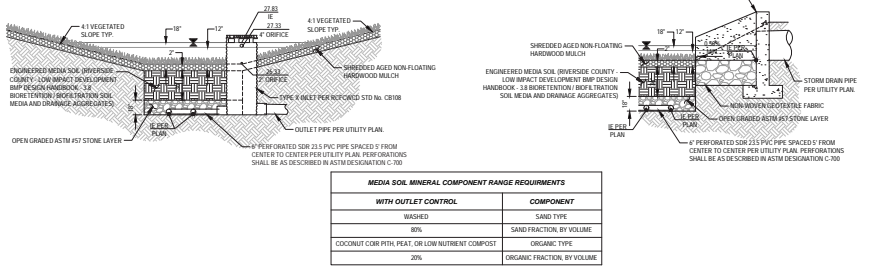
PROJECT NAME: MCA
PROJECT ADDRESS: Murrieta, CA
CLIENT: MURRIETA VALLEY UNIFIED SCHOOL DISTRICT
PROJECT NUMBER: 104.13
DATE: 12/15/2019

INSTALLATION NOTES

- CONTRACTOR TO VERIFY ALL MEDIA COMPONENTS ARE MANUFACTURED TO SPECIFICATIONS AND SHALL BE TESTED AND APPROVED BY AN INDEPENDENT LABORATORY BEFORE USE.
- CONTRACTOR TO VERIFY ALL MEDIA COMPONENTS ARE MANUFACTURED TO SPECIFICATIONS AND SHALL BE TESTED AND APPROVED BY AN INDEPENDENT LABORATORY BEFORE USE.
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GENERAL NOTES

- CONTRACTOR TO VERIFY ALL MEDIA COMPONENTS ARE MANUFACTURED TO SPECIFICATIONS AND SHALL BE TESTED AND APPROVED BY AN INDEPENDENT LABORATORY BEFORE USE.
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MEDIA SOIL MINERAL COMPONENT RANGE REQUIREMENTS	
WITH OUTLET CONTROL	
WASHED	COMPONENT
85%	SAND FRACTION BY VOLUME
COCONUT COIR FIBER OR LOW NUTRIENT COMPOST	ORGANIC TYPE
35%	ORGANIC FRACTION BY VOLUME

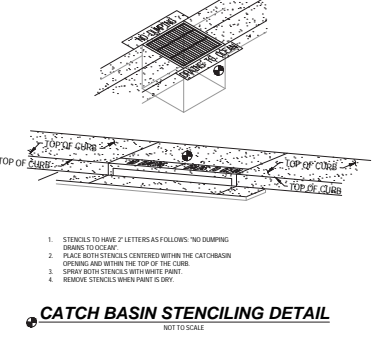


Figure 3.10-1: Drainage Area Map
Source: EPIC Engineers (01/10/2020).

3.11 Land Use and Planning

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Project would occur in the general location of the existing turf fields associated with Thompson Middle School, located immediately northwest of the existing MCA campus and south of the adjacent Thompson Middle School buildings. The area was graded at the time of original grading of the Thompson Middle School and MCA campus. The Project site is designated Civic/Institutional land use on the City’s General Plan Land Use Map and Zoning Map.

Discussion

a) No Impact. The Project would construct the new buildings within the existing turf field associated with Thompson Middle School. Following demolition of the existing MCA campus, turf fields for Thompson Middle School would be replaced. Since the Project is located within a larger school complex consisting of MCA, Thompson Middle School, and Murrieta Valley High School, no division of an existing community would occur; therefore, no impacts would occur.

b) No Impact. The Project proposes no changes to existing land use or zoning. The proposed demolition and reconstruction of MCA would remain consistent with the City of Murrieta’s General Plan and current zoning as Civic/Institutional. Therefore, no impact would occur with Project implementation.

3.12 Mineral Resources

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Project would occur in the general location of the existing turf fields associated with Thompson Middle School, located immediately northwest of the existing MCA campus. The area was graded at the time of original grading of the Thompson Middle School and MCA campus. The proposed Project includes minor grading as part of Project implementation.

Discussion

a) No Impact. The Project will occur on an existing disturbed and developed site with no known available mineral resources. The geotechnical report (Appendix E) documents the Project site is underlain with Pauba Formation sandstone and alluvial deposits with the upper 10 feet consisting of artificial fill. No mineral resources on the Project site were identified as part of the geotechnical investigation. Therefore, no impact would occur to mineral resources.

b) No Impact. The Project site is designated as a Civic/Institutional land use and not for mineral resource recovery. Further, per the City of Murrieta General Plan Mineral Resources Map (Murrieta General Plan Exhibit 8-1), no mineral resources are identified on the Project site. Therefore, no impact would occur as a result of Project implementation.

3.13 Noise

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
NOISE. Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

A noise study, titled *Murrieta Canyon Academy, Noise Impact Analysis* dated May 6, 2020 (Appendix J) provides an analysis of noise impacts from construction and operational noise associated with the proposed Project. It is difficult to measure the subjective effects of noise because there is a wide variation in individual thresholds of annoyance or tolerance of noise events. In general, the more a new noise exceeds the existing background noise, referred to as ambient noise, the less acceptable the new noise source will likely be judged.

Measurement of new noise sources occurs at sensitive receptors. For the proposed Project, the surrounding sensitive receptors include residential uses and school uses (Figure 3.13-1). The background ambient noise condition was measured at five locations as summarized in the Table 3.13-a below:

Table 3.13-a. 24-Hour Ambient Noise Level Measurements

Location ¹	Description	Energy Average Noise Level (dBA Leq) ²		CNEL
		Daytime	Nighttime	
L1	Located northeast of project side on dirt road adjacent to Douglas Avenue and Fullerton Road.	47.6	42.5	50.3

Location ¹	Description	Energy Average Noise Level (dBA Leq) ²		CNEL
		Daytime	Nighttime	
L2	Located south of the Project site on Hayes Avenue near existing residential homes.	61.1	57.2	64.6
L3	Located southwest of Project site on Hayes Avenue near existing residential homes.	60.0	53.9	62.1
L4	Located west of the Project site on Hayes Avenue near existing residential homes and Thompson Middle School.	61.8	56.2	64.1
L5	Located northwest of the Project site on Nighthawk Way near existing residential homes.	60.3	55.6	63.1

¹ See Exhibit 5-A in the Noise Study (Appendix J) for the noise level measurement locations.

² Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2. "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

The Noise Study model projected noise from construction and operations of the Project at the noise sensitive locations to determine if significant impacts would occur. The determination of whether a significant impact occurs is whether a noise threshold is exceeded. Construction and operations are different in the type and duration of noise produced and therefore have different noise thresholds of significance. MVUSD as the CEQA Lead Agency is relying on the following thresholds of significance, many of which are based on the City of Murrieta General Plan and Municipal Code. The following table provides a summary of the noise thresholds of significance.

Table 3.13-b. Significance Criteria Summary

Analysis	Land Use	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Off-Site Traffic	Noise-Sensitive ¹	If ambient is < 60 dBA CNEL	≥ 5 dBA CNEL Project increase	
		If ambient is 60 - 65 dBA CNEL	≥ 3 dBA CNEL Project increase	
		If ambient is > 65 dBA CNEL	≥ 1.5 dBA CNEL Project increase	
On-Site Traffic	Residential	Exterior Noise Level Criteria ²	See Exhibit 3-A	
		Interior Noise Level Standard ³	45 dBA CNEL	
Operational		Exterior Noise Level Standards ⁴	50 dBA Leq	45 dBA Leq
Construction		Mobile Equipment Noise Level Threshold ⁵	75 dBA L _{max}	
		Stationary Equipment Noise Level Threshold ⁵	60 dBA L _{max}	
		Vibration Level Threshold ⁶	0.01 in/sec RMS	

¹ FICON, 1992.

² City of Murrieta General Plan Noise Element, Table 11-2.

³ California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2.

⁴ City of Murrieta Municipal Code, Section 16.30.090 Exterior Noise Standards (Appendix 3.1).

⁵ City of Murrieta Municipal Code, Section 16.30.130 (A) (Appendix 3.1).

⁶ City of Murrieta Municipal Code, Section 16.30.130 (K) (Appendix 3.1).

"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

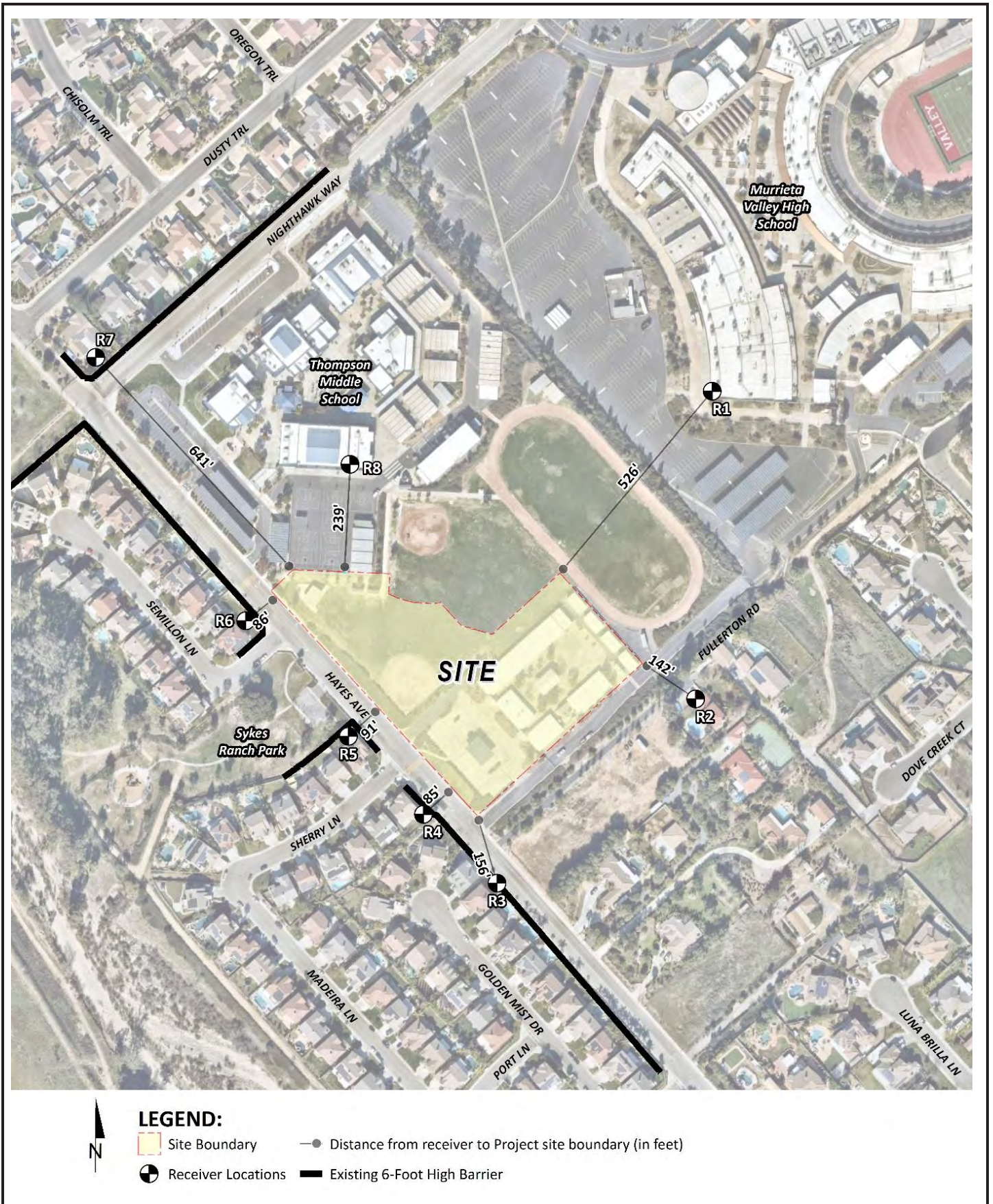


Figure 3.13-1: Sensitive Noise Receptor Map

Source: UrbanCrossroads (05/2020).



In addition to audible noise, construction operations can produce ground-borne noise in the form of vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment and/or activities. MVUSD as the CEQA Lead Agency is relying on the City of Murrieta’s Municipal Code for the threshold of significance. The City of Murrieta Municipal Code, Section 16.30.130 (K), states that *operating or permitting the operation of any device that creates a vibration that is above the vibration perception threshold of an individual at or beyond the property boundary of the source if on private property or at one hundred fifty feet from the source if on public space or public right-of-way* is prohibited. The Municipal Code defines the vibration perception threshold to be a motion velocity of 0.01 in/sec over the range of one to 100 Hz.

Discussion

a) Less than Significant with Mitigation. The Project will generate temporary and permanent noise from construction and operations. The following summarizes the conclusions from the Noise Study included in Appendix J.

Construction Noise

Construction activities will create temporary and intermittent high-level noise emissions. Using sample reference noise levels to represent the construction activities, the Noise Study estimates the Project-related construction noise levels at nearby sensitive receiver locations. To assess the worst-case construction noise levels, the Project construction noise analysis relies on the highest noise level impacts when the equipment with the highest reference noise level is operating at the closest point from the edge of primary construction activity (Project site boundary) to each receiver location. The Noise Study concluded that the Project related construction equipment noise levels will remain under the City of Murrieta Municipal Code construction noise level standards of 75 dBA L_{max} for mobile equipment and the 60 dBA L_{max} standards for stationary equipment at all receiver locations. The following table summarizes the results presented in the Noise Study.

Table 3.13-c. Construction Noise Levels

Receiver Location ¹	Construction Noise Levels (dBA L _{eq})						Highest Levels ²
	Mobile Equipment				Stationary Equipment		
	Demolition	Site Preparation	Grading	Paving	Building Construction	Architectural Coating	
R1	67.4	69.1	66.2	64.6	49.6	44.3	69.1
R2	69.5	71.2	68.3	66.7	47.5	42.2	71.2
R3	69.6	71.3	68.4	66.8	49.8	44.5	71.3
R4	70.6	72.3	69.4	67.8	52.2	46.9	72.3
R5	73.3	75.0	72.1	70.5	59.1	53.8	75.0
R6	68.1	69.8	66.9	65.3	52.8	47.5	69.8

Receiver Location ¹	Construction Noise Levels (dBA L _{eq})						Highest Levels ²
	Mobile Equipment				Stationary Equipment		
	Demolition	Site Preparation	Grading	Paving	Building Construction	Architectural Coating	
R7	54.3	56.0	53.1	51.5	37.1	31.8	56.0
R8	70.9	72.6	69.7	68.1	54.6	49.3	72.6

¹ Noise receiver locations are shown on Exhibit 11-A.

² Construction noise level calculations based on distance from the primary construction activity area to nearby receiver locations. CadnaA construction noise model inputs are included in Appendix 11.1.

While the analysis in the Noise Study shows construction noise will remain below the thresholds of significance, construction noise abatement measures have been incorporated into **Mitigation Measure MM NOI-1** to further minimize the annoyance from construction noise on sensitive receptors.

MM NOI-1: *The following noise abatement measures shall be implemented:*

- *Prior to approval of grading plans and/or issuance of building permits, plans shall include a note indicating that noise-generating Project construction activities shall only occur between the hours of 7:00 a.m. to 8:00 p.m. daily, with no activity allowed on Sundays or holidays (City of Murrieta Municipal Code, Section 16.30.130(A)(2)(a)(1)). The Project construction supervisor shall ensure compliance with the note and the City shall conduct periodic inspection at its discretion.*
- *During all Project site construction, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers’ standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receivers nearest the Project site.*
- *The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receivers nearest the Project site during all Project construction activities (i.e., to the center).*
- *The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 7:00 a.m. to 8:00 p.m. daily, with no activity allowed on Sundays or holidays). The contractor shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise.*

With implementation of mitigation measure MM NOI-1, construction related noise impacts would be less than significant.

Operational Noise

Operational noise can occur from stationary sources on the Project site and from increased vehicle traffic. The typical activities associated with stationary noise sources include roof-top air conditioning units, outdoor student activity, basketball court activity and parking lot vehicle movements activity. The operational noise analysis presented in the Noise Study concludes that stationary noise levels will remain less than the City of Murrieta stationary-source exterior hourly average Leq noise levels of 50 dBA Leq daytime at all nearby receiver locations. No Project activities are expected during the nighttime hours from 10:00 p.m. to 7:00 a.m. Therefore, operational noise from stationary sources would be less than significant.

The Noise Study includes analysis of operational noise from traffic-related noise sources using traffic volumes presented in the Traffic Impact Study (Appendix K). The Traffic Study includes analysis of several buildout scenarios including existing, existing plus Project, Project buildout plus ambient traffic growth, and Project buildout plus ambient traffic growth plus cumulative traffic. The Noise Study presents the incremental increase in noise at sensitive receptors from the increase in traffic associated with the Project. Roadway noise is measured in CNEL, which is a 24-hour weighted average, with noise “penalties” assigned for evening and nighttime noise. In all scenarios, the largest increase in noise is 1.3 dBA CNEL in the existing plus project condition, which is less than the threshold of significance of 3.0 dBA CNEL. Therefore, the increase in traffic related noise is less than significant.

While CEQA does not require an analysis of the effects of the environment on the Project, the Noise Study includes an interior noise analysis for information purposes. The City of Murrieta has an interior standard of 45 dBA CNEL. This noise standard can be achieved with standard construction, windows with minimum STC rating of 27, and mechanical ventilation (i.e. air conditioning). Since the Project is governed by the DSA, not the City of Murrieta, interior noise standards will be reviewed at the State level. However, the analysis in the Noise Study documents that the Project can achieve interior noise standards. No impact would occur.

b) Less than Significant. Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. At distances ranging from 125 to 656 feet from the Project construction activities, construction vibration velocity levels are estimated to range from 0.000 to 0.006 in/sec RMS and will remain below the threshold of 0.01 in/sec RMS at all receiver locations. Therefore, the Project-related vibration impacts are considered less than significant.

c) No Impact. The Project site is not located in an airport land use plan or near a private or public airstrip. The closest airport is French Valley Airport located 5.86 miles from the Project site. No impact would occur.

3.14 Population and Housing

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
POPULATION AND HOUSING. Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Modified Project would convert an existing turf field and school campus to single and two-story buildings. The Project would not change the land use or intensity of development. The Project would not impact existing housing or construct new housing.

Discussion

a) No Impact. The Project does not include residential development and therefore would not directly increase population growth. Furthermore, the increase in school capacity would serve existing MVUSD students. Schools are required to serve all students within the District boundaries. Therefore, schools must react to growth and creating additional school capacity is not growth inducing. Therefore, no growth inducing impact would occur either directly or indirectly.

b) No Impact. No housing currently exists on the Project site; therefore, no displacement of existing housing would occur as a result of the Project.

3.15 Public Service

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
PUBLIC SERVICES.				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Project does not include construction of residential uses; therefore, there would be no direct increase in population. The Project improvements would increase the enrollment capacity from 234 students to 594 students providing increased educational opportunities within the District. All improvements would take place on existing school campus property.

Discussion

a) No Impact. The demand on public services is directly related to development intensity and mix of land uses. The Project would not change the type of land use since the Project site is currently developed with an existing school. The change in number of students represents a minor increase in intensity of use, however the Project does not operate as a traditional school campus. The Project, Murrieta Canyon Academy, provides alternative education for students. A minority of the enrolled students arrive daily and have a more traditional school schedule. The majority of the students attend either Independent Study, or Adult Education morning or Adult Education evening classes. Therefore, all enrolled students are rarely all on campus at the same time. Given the varied schedule of students, the increase in capacity of the Project does not directly translate into an increase in intensity of use that could place a higher demand on public services.

Fire Protection: The Project would not place additional demands on fire protection or medical aid response. The Project includes new construction of permanent structures that would adhere to the State's Fire Code requirements. The increase in the number of students does not directly translate into higher intensity of use because of the varied schedule of students. Therefore, no increase of medical aid calls is anticipated as a result of the Project.

Police Protection: The Project would not place additional demands on police protection. The existing MCA campus is secured with fencing and the proposed Project would also include perimeter security fencing. The increase in the number of students does not directly translate into higher intensity of use because of the varied schedule of students. MVUSD has a close working relationship with the City of Murrieta Police Department. The Project would not change that working relationship or place a higher demand on police services.

Schools: The Project is a school project and would therefore not place additional demand on schools but instead provide additional educational services to students within the District.

Parks: The Project is a school project that would not place additional demand on public parks. The Project includes temporarily impacting a softball field associated with Thompson Middle School. Once the new MCA campus is constructed, the existing campus would be demolished, and field space returned to Thompson Middle School. The proposal would not directly impact public park space or increase demand on public parks.

Other Public Facilities: The Project would not increase demand on other public facilities such as libraries, community centers, civic centers, or City Hall. The Project includes the reconstruction of an alternative education school in order to accommodate existing demand within the District. The minor increase in the number of students would not translate into increase demand on public facilities because those students already exist within the District and have the opportunity to use the public facilities.

Therefore, no impacts would occur associated with the demand for public services as a result of the proposed Project.

3.16 Recreation

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
RECREATION. Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Project is proposed to be constructed in the general location of the existing softball fields associated with Thompson Middle School, located immediately northwest of the existing MCA campus. Following the completion of the new buildings and demolition of the existing portable classrooms, new turf fields for Thompson Middle School will be constructed to replace the fields lost during construction of the new MCA buildings.

Discussion

a) No Impact. The Project includes the reconstruction of the existing MCA campus. No increase in population or direct impacts would occur to park and recreation facilities. The Project would not increase the use of existing neighborhood, regional parks, or lead to an accelerated deterioration of other recreational facilities. Therefore, no impact would occur.

b) No Impact. The Project does not include recreational facilities or the construction or expansion of recreational facilities on or off the Project site. Therefore, no impact would occur.

3.17 Transportation/Traffic

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
TRANSPORTATION/TRAFFIC. Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

A Traffic Impact Study titled, *Murrieta Valley Unified School District Murrieta Canyon Academy Expansion Traffic Impact Study*, dated March 12, 2020 (Appendix K) was prepared by RK Engineering Group Inc. for the proposed Project. The Traffic Study analyzed the impacts from the incremental increase in traffic associated with the increase in the number of students at MCA.

Since MCA is an alternative school with varying schedules for students, the Traffic Study used driveway counts for the existing campus to calculate projected traffic volumes from the Project. The proposed Project is projected to generate approximately 1,249 daily trips, which include approximately 320 AM peak hour trips and approximately 94 PM peak hour trips. The Traffic Study also took counts of surrounding intersections and roadway segments and projected the additional Project traffic, plus cumulative traffic from reasonably foreseeable projects and background growth, to determine future impacts to the roadway network. The following intersections and roadway segments were analyzed in the Traffic Study.

Table 3.17-a. Study Area Intersections

	North-South Street	East-West Street
1.	Hayes Avenue	Nighthawk Way
2.	Hayes Avenue	Fullerton Road
3.	Hayes Avenue	Vineyard Parkway
4.	Washington Avenue	Nutmeg Street
5.	Washington Avenue	Nighthawk Way
6.	Washington Avenue	Fullerton Road
7.	Washington Avenue	Lemon Street
8.	Washington Avenue	Kalmia Street
9.	Hayes Avenue	Project Driveway 1
10.	Project Driveway 2	Fullerton Road

Table 3.17-b. Study Area Roadway Segments

	Roadway	Segment
1.	Hayes Avenue	Nighthawk to Sherry Lane
2.	Hayes Avenue	Sherry Lane to Fullerton Road
3.	Hayes Avenue	Fullerton Road to Vineyard Parkway

The Traffic Study calculated the Level of Service (LOS) at the Study Area Intersections and roadway segments for existing conditions, existing plus project conditions, and the Project buildout year with and without cumulative projects and ambient growth (2%). The LOS calculation relies on the Highway Capacity Manual (HCM) 2010 methodology. HCM expresses LOS in terms of delay time for various intersection approaches. Roadway segment analysis compares existing and future traffic volumes to the maximum two-way daily traffic volumes identified in the City of Murrieta General Plan Circulation Element.

MVUSD as the Lead Agency has adopted the City of Murrieta’s standards as the thresholds of significance for intersections and roadway segments. The threshold of significance is LOS D for intersections and LOS C for roadway segments.

The Traffic Study assumes completion of the Project in 2023. This date is the soonest the Project could open if funding were to become available. It is possible given funding constraints that the Project would open in later years. The Traffic Study includes trip generation from 18 cumulative projects listed on Table 3-4 of the Traffic Study. The cumulative projects were provided by the City of Murrieta and are considered reasonably foreseeable projects.

Discussion

a) Less than Significant with Mitigation. The Traffic Study analyzed the incremental increase in traffic associated with the Project for Study Area intersections and roadway segments compared to established LOS thresholds. Roadway segments currently operate at the highest level of service (LOS A) and will continue to do so with the proposed Project plus ambient growth, plus cumulative projects. Table 3.17-c below summarizes the projected LOS for roadway segments.

Table 3.17-c. Roadway Segments Results

Intersection		Existing		Existing + Project		Project Buildout + Ambient Growth		Project Buildout + Ambient + Cumulative Projects	
		AM	PM	AM	PM	AM	PM	AM	PM
1.	Hayes Ave (Nighthawk Way to Sherry Lane)	A	A	A	A	A	A	A	A
2.	Hayes Ave (Sherry Lane to Fullerton Rd)	A	A	A	A	A	A	A	A
3.	Hayes Ave (Fullerton Rd to Vineyard Pkwy)	A	A	A	A	A	A	A	A

The Traffic Study analyzed intersection performance for the same conditions and determined that two intersections experience impacts from the Project. Table 3.17-d below summarizes the projected LOS for Study Area intersections.

Table 3.17-d. Study Area Intersections Results

Intersection		Existing		Existing + Project		Project Buildout + Ambient Growth		Project buildout + Ambient + Cumulative Projects	
		AM	PM	AM	PM	AM	PM	AM	PM
1.	Hayes Ave (NS)/Nighthawk Way (EW)	B	A	B	A	C	A	C	A
2.	Hayes Ave. (NS) / Fullerton Rd (EW)	B	A	E	A	E	A	E	A
3.	Hayes Ave (NS) / Vineyard Pkwy (EW)	C	A	D	A	E	A	F	A
4.	Washington Ave (NS)/Nutmeg St (EW)	C	C	C	C	D	C	D	D
5.	Washington Ave (NS)/Nighthawk Way (EW)	C	B	D	B	D	B	D	B
6.	Washington Ave (NS)/Fullerton Rd (EW)	B	A	B	A	B	A	B	A

Intersection		Existing		Existing + Project		Project Buildout + Ambient Growth		Project buildout + Ambient + Cumulative Projects	
		AM	PM	AM	PM	AM	PM	AM	PM
7.	Washington Ave (NS)/Lemon St (EW)	C	A	D	B	D	B	D	B
8.	Washington Ave (NS)/Kalmia St (EW)	C	C	C	C	C	C	D	D
9.	Hayes Ave (NS)/Project Driveway 1 (EW)	C	A	C	A	C	A	C	A
10.	Project Driveway 2 (NS)/Fullerton Rd (EW)	A	A	A	A	A	A	A	A

All Study Area Intersections currently operate at an acceptable LOS in the existing condition. However, when Project traffic is added to the existing condition, the Hayes Avenue / Fullerton Road intersection experiences delay in the AM Peak hour. This delay is the result of Project traffic at an uncontrolled intersection. The Hayes Avenue / Fullerton Road intersection does not have enough traffic volume to warrant a traffic signal, therefore the recommend improvement includes striping a painted center median on Hayes Avenue to allow refuge for left turn movements leaving Fullerton Road as described in **Mitigation Measure MM TRANS-1** below.

The other intersection impacted by the Project is Hayes Avenue / Vineyard Parkway. The impact to this intersection occurs when traffic from ambient growth and cumulative traffic is added to Project traffic. Impacts occur in the AM Peak hour as school traffic mixes with commuter traffic. The Hayes Avenue / Vineyard Parkway intersection is currently stopped controlled. A warrants analysis for this intersection determined that a traffic signal is warranted at this location given projected traffic volumes. While the Project triggers the need for this traffic signal, ambient growth and cumulative projects, especially planned future development to the southwest of the Project site, also contribute to the need for this traffic signal. The Traffic Study includes a fair-share analysis (Table 6-2), which determined the Project’s contribution to the traffic signal. As a percentage of trips, the Project contributes 51% in the AM Peak Hour and 24% in the PM Peak Hour. Therefore, to reduce impacts to less than significant, the Project must implement **Mitigation Measure MM Trans-2**.

MM TRANS -1 *Prior to grading the Project Site, MVUSD shall enter into an Agreement with the City of Murrieta to stripe a painted center median on Hayes Avenue to provide refuge for left turn movements leaving Fullerton Road.*

MM TRANS-2 *Prior to grading the Project Site, MVUSD shall enter into an Agreement with the City of Murrieta to 1) cause a traffic signal to be installed at the Hayes Avenue / Vineyard Parkway intersection prior to the opening of the Project and 2) provide MVUSD with reimbursement for the portion of the signal cost above its fair-share from future development projects.*

With implementation of mitigation measures MM TRANS-1 and MM TRANS-2 impacts would be reduced to less than significant.

b) Less than Significant. The proposed Project would not impact any Congestion Management Plan (CMP) roadways. Impacts to local roadway segments and intersections are described in a) above. The Study Area does not include any CMP designated roadways and no impacts to a Congestion Management Plan would occur. Therefore, impacts are less than significant.

c) No Impact. The proposed Project would not change air traffic plans. The Project consists of the expansion of an existing school campus, which does not generate air traffic, and is located approximately 5.8 miles from French Valley Airport, the nearest airport. Therefore, no impacts would occur.

d) Less than Significant. The Traffic Study (Appendix K) analyzed the design of the proposed Project and did not identify hazardous turning movements. Two traffic improvements are recommended in Mitigation Measures MM TRANS-1 and MM TRANS-2. Both improvements are designed to improve traffic conditions, reduce congestion, and minimize hazards. There is no indication or evidence either improvement would cause a traffic hazard. Therefore, impacts would be less than significant.

e) Less than Significant. The proposed Project would not change the roadway network or emergency route to the Project site. On-site, the driveway configuration and parking lots would be modified compared to existing conditions. The on-site circulation and emergency access are reviewed by DSA prior to authorization to proceed with construction. The Traffic Study also reviewed on-site circulation and there is no indication or evidence of a conflict with emergency access. Therefore, impacts are less than significant.

f) No Impact. The proposed Project would not conflict with policies designed to encourage alternative transportation. In general, schools promote alternative transportation (pedestrian and bicycle) by their location close to students and facilities provides such as bicycle racks. Therefore, the Project would be consistent with policies to encourage alternative transportation. No impacts would occur.

3.18 Tribal Cultural Resources

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
TRIBAL CULTURAL RESOURCES. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The Project site is located within the ethnographic territory of the Luiseño. The Luiseño are Takic speakers and are descended from Late Prehistoric populations of the region (Bean and Smith 1978, Shipley 1978). The Luiseño lived in sedentary and independent village groups, each with specific subsistence territories encompassing hunting, food gathering, and fishing areas. Villages were usually located in valley basins, along creeks and streams adjacent to mountain ranges where water was available. Most inland populations had access to fishing and food gathering sites on the coast though economic and subsistence practices centered upon the seasonal gathering of acorns and seeds; the hunting of deer and small mammals (Basgall 1987; Bean and Shipek 1978; Johnson and Earle 1987; Lovin 1963; White 1963).

Under AB 52 consultation, the Rincon Band of Luiseño Indians, Soboba Band of Luiseño Indians, and Pechanga Band of Luiseño Indians all commented that the Project site is located within the territory of the Luiseño people and a specific area of Historic interest. Rincon indicated in a comment letter that “Rincon has knowledge of one Luiseño place name, *aocaxa*, within a one-

mile radius of the project site.” Pechanga also indicated the importance of the area to the Tribe. In a comment letter, Pechanga stated, “The Pechanga Tribe asserts that the Project area is part of *'Ataaxum* (Luiseño), and therefore the Tribe's, aboriginal territory as evidenced by the existence of cultural resources, named places, *toota yixelval* (rock art, pictographs, petroglyphs), and an extensive *'Ataaxum* artifact record in the vicinity of the Project. This culturally sensitive area is affiliated with the Pechanga Band of Luiseño Indians because of the Tribe's cultural ties to this area as well as our extensive history with the City and other projects within the area.”

The Project is subject to California Assembly Bill 52. On July 1, 2015, California AB 52 of 2014 was enacted and expands CEQA by defining a new resource category, “tribal cultural resources.” AB 52 establishes that “A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment” (PRC Section 21084.2).

AB 52 also establishes a formal consultation process for California tribes regarding those resources. AB 52 requires that lead agencies “begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if: (1) the California Native American tribe requested to the Lead Agency, in writing, to be informed by the Lead Agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation.”

MVUSD initiated tribal consultation process under AB 52 by first contacting the Native American Heritage Commission (NAHC) and receiving a list of tribes traditionally and culturally affiliated with the geographic area of the Project site. On October 25, 2019, MVUSD sent 26 letters by certified mail to all 26 tribal organizations provided by NAHC. Since no responses were received, on November 13, 2019, 26 emails were sent to all tribal contacts on the NAHC list. Four letters were received back from tribal organizations. The Rincon Band of Luiseño Indians responded on November 20, 2019 requesting consultation. The Pala Band of Mission Indians responded on December 4, 2019 declining tribal consultation because the project site is located outside of the recognized boundaries of the Pala Indian Reservation. On December 7, 2019, the Soboba Band of Luiseño Indians requested consultation and on December 11, 2019, the Pechanga Band of Luiseño Indians requested consultation. No requests from the remaining tribal organizations responded to notification.

Consultation with three tribes took place over the phone. On January 29, 2020, phone consultation occurred with the Rincon Band of Luiseño Indians. On April 21, 2020, phone consultation occurred with the Soboba Band of Luiseño Indians. On April 24, 2020, phone consultation occurred with the Pechanga Band of Luiseño Indians. In all three consultations similar comments were provided. All three bands of Luiseño Indians 1) expressed the importance of the Project site and the surrounding area to its heritage; 2) requested tribal monitoring from the Luiseño Indians during grading; and 3) requested language be included in the environmental

document specifying disposition of tribal cultural resources if found on site with the preference for reburial on the Project site.

Discussion

a, b) Less than Significant with Mitigation. The location of the Project site within the territory of the Luiseño people and within proximity to known sacred sites results in a potentially significant impact to tribal cultural resources. While the site has been previously graded and disturbed, resulting in a low potential for cultural resources to be located on the Project site, the potential for cultural resources remains. To mitigate the potential impact to cultural resources, the following mitigation measures must be implemented to provide for tribal monitoring and disposition of resources if found on site.

MM TRC-1 *Monitors representing indigenous Luiseño interests shall participate in monitoring of ground-disturbing activity. Prior to the start of grading, agreements between MVUSD and a Native American monitor(s) representing the Luiseño Indian Tribe regarding prehistoric cultural resources shall be executed and shall identify monitoring requirements and treatment of cultural resources in accordance with MM TRC-2 so as to meet both the requirements of CEQA and those of the Luiseño Indian Tribe. The monitoring agreement shall address the designation, responsibilities, and participation of professional Native American tribal monitors during grading, excavation, and ground-disturbing activities; the treatment of discovered cultural resources; project grading and development scheduling; terms of compensation for the monitors; and treatment and final disposition of any cultural resources, sacred site, and human remains discovered on the site.*

MM TRC-2 *If Native American cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries:*

a) One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to MVUSD:

i. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place where they were found with no development affecting the integrity of the resources. Preservation in place shall only occur if feasible.

ii. Onsite reburial of the discovered items as detailed in the monitoring agreement required pursuant to Mitigation Measure MM TRC-1. This shall include measures and provisions to protect the future reburial area from any future impacts in perpetuity. Reburial shall not occur until all legally required cataloging and basic recordation have been completed. No recordation of sacred items is permitted without the written consent of all consulting Native American Tribal Governments.

With implementation of Mitigation Measures MM TRC-1 and TRC-2, impacts to tribal cultural resources would be reduced to less than significant.

3.19 Utilities and Service Systems

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The Project would convert an existing turf field and school campus of single-story portable buildings to single and two-story permanent buildings. While the Project increases student capacity from 234 students to 594 students, the change in number of students represents a minor increase in intensity of use because the Project does not operate as a traditional school campus. The Project, Murrieta Canyon Academy, provides alternative education for students. A minority of the enrolled students arrive daily and have a more traditional school schedule. A majority of the students attend either Independent Study, or Adult Education morning or Adult Education evening classes. Therefore, all enrolled students are rarely all on campus at the same time. Given the varied schedule of students, the increase in capacity of the Project does not directly translate into an increase in intensity of use that could place a higher demand on utilities.

Discussion

a–b) Less Than Significant Impact. The demand for wastewater and domestic water depends on development intensity. The Project proposes an increase in the number of students from 234 students to 594 students. However, the change in number of students represents a minor increase in intensity of use because the Project does not operate as a traditional school campus. The Project, Murrieta Canyon Academy, provides alternative education for students. A minority of the enrolled students arrive daily and have a more traditional school schedule. A majority of the students attend either Independent Study, or Adult Education morning or Adult Education evening classes. Therefore, all enrolled students are rarely all on campus at the same time. Given the varied schedule of students, the increase in capacity of the Project does not directly translate into an increase in intensity of use that could place a higher demand on wastewater and domestic water facilities. The existing operations of MCA demonstrates that wastewater and domestic water capacity is sufficient to accommodate the proposed Project. Therefore, potential impacts associated with utility system demand would be less than significant and no mitigation would be required.

c) Less Than Significant Impact. Wastewater generated by the MCA campus is under the jurisdiction of Western Municipal Water District and is treated at the Santa Rosa Water Reclamation Facility in Murrieta. This facility has design capacities that exceed their current utilization. The increase of students with the implementation of the Project could generate a minor incremental increase in wastewater discharge, however the non-traditional schedule of students at MCA does not translate into higher intensity use of the Project site. The potential incremental increase in wastewater generated by MCA would be within the average daily capacity amount of wastewater treated by Santa Rosa Water Reclamation Facility. Therefore, potential impacts associated with wastewater treatment capacity would be less than significant and no mitigation would be required.

d and e) Less Than Significant Impact with Mitigation. The Project includes the construction of a new campus with single and two-story buildings and demolition of the existing campus of portable buildings. Therefore, this Project would produce waste during the construction of the new campus and demolition of the existing campus, and the operation of the MCA school facility. Project waste would be collected by Waste Management, which serves the entire City of Murrieta and transfers to nearby landfills. The El Sobrante Landfill in Corona is the closest landfill and has 143,977,170 cubic yards of remaining capacity and is projected to reach full capacity in 2051 (CalRecycle 2020).

CalRecycle estimates that construction and demolition waste account for 21.7 to 25.5 percent of the disposed waste stream. The Project will generate both construction waste and demolition waste, much of which can be either reused or recycled. The existing buildings on the Project site are portable structures and if the structures are structurally sound, can be moved and reused at another location either within the District or elsewhere. The parking lot and foundations under the portable classrooms consists of concrete and asphalt, both of which can be crushed and recycled. Building waste, primarily consisting of masonry and wood waste, can also be recycled. The California Code of Regulations Titles 14 and 27 provide regulations pertaining to waste

management. Therefore, implementation of a construction and demolition waste recycling program in accordance with **Mitigation Measure MM UTIL-1** would reduce impacts to less than significant.

MM UTIL-1 *MVUSD shall implement a construction and demolition waste recycling program consistent with the California Code of Regulations Titles 14 and 27, with the objective to recycle or reuse construction and demolition waste to the extent possible.*

The operation of the Project would occur similar to current conditions. The change in number of students represents a minor increase in intensity of use, however the Project does not operate as a traditional school campus. The Project, Murrieta Canyon Academy, provides alternative education for students. A minority of the enrolled students arrive daily and have a more traditional school schedule. A majority of the students attend either Independent Study, or Adult Education morning or Adult Education evening classes. Therefore, all enrolled students are rarely all on campus at the same time. Given the varied schedule of students, the increase in capacity of the Project does not directly translate into an increase in intensity of use that could place a higher demand on solid waste disposal. The District will continue to implement recycling policies and the El Sobrante Landfill has sufficient capacity to accommodate future solid waste from MCA.

Therefore, impacts to solid waste disposal from construction and demolition would be less than significant with implementation of Mitigation Measure MM UTIL-1 and impacts to solid waste disposal from operation of MCA would be less than significant.

3.20 Wildfire

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The Project would occur in the general location of the existing turf fields associated with Thompson Middle School, located immediately northwest of the existing MCA campus. The area was graded at the time of original grading of the Thompson Middle School and MCA campus. The area surrounding the Project Site includes residential to the east and south; Thompson Middle School field and Thompson Middle School to the west; and Murrieta Valley High School to the north.

Discussion

a – d) Less than Significant. The Project site is currently developed as the MCA campus and turf field. Surrounding land uses include residential developments and adjacent High school and Middle school. The Project site would not impair an adopted emergency response plan or exacerbate wildfire risks. New construction of structures on the Project site is subject to review by the Division of the State Architect (DSA). The DSA provides a stringent review of all K-12 public schools, including structural design review and Fire and Life Safety Plan review. The DSA Fire and

Life Safety Plan review verifies site location, accessibility standards, structural safety, fire safety, and emergence response.

The Project site is located outside of the High Fire Zone per the City of Murrieta High Fire Hazard Zones Map Exhibit 12-8 found within the City of Murrieta General Plan. Since the Project site is located on relatively flat ground with no surrounding wildland areas or hillsides and currently developed as the MCA campus within a surrounding built environment, there would be no exposure of people or structures to significant wildfire risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, impacts associated with wildfire are considered less than significant.

3.21 Mandatory Findings of Significance

Issues:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a) Less Than Significant with Mitigation Incorporated. Implementation of the proposed Project would not substantially degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

The proposed Project would not cause any significant impacts that would substantially degrade the environment. Implementation of mitigation measures **MM AQ-1** and **MM AQ-2** would minimize air quality pollutant emissions from construction activities on sensitive receptors, resulting in a less than significant impact. According to the geology and soils analysis, the implementation of mitigation measure **MM GEO-1** would ensure that recommendations outlined within the Geotechnical/Geologic Hazards Report would be implemented during Project design and construction. With the implementation of the mitigation measure, the Project would have less than significant impacts related to potential seismic ground shaking. According to the noise analysis, while construction noise would remain below the thresholds of significance, the

implementation of mitigation measure **MM NOI-1**, would minimize noise annoyance from construction activities on adjacent sensitive receptors. With the implementation of the mitigation measure, the Project would have less than significant impacts related to construction noise. According to the traffic analysis, the incremental increase in traffic associated with the proposed Project would cause impacts at two intersections. The Hayes Avenue / Fullerton Road intersection does not have enough traffic volume to warrant a traffic signal, therefore the recommended improvement includes striping a center median to provide refuge for left turns out of Fullerton Road as described in mitigation measure **MM TRANS-1**. The currently stop controlled intersection of Hayes Avenue / Vineyard Parkway warrants installation of a traffic signal as described in mitigation measure **MM TRANS-2**. With the implementation of the mitigation measures, the Project would have less than significant impacts related to traffic. According to the utilities and service system analysis, the Project would generate both construction waste and demolition waste, much of which can be either reused or recycled. With the implementation of mitigation measure **MM UTIL-1**, Project construction and demolition would be required to adhere to waste recycling programs. With the implementation, the Project would have less than significant impacts related to construction and demolition.

The proposed Project would also not substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. The Project site consists of ex existing developed school site and turf ballfields. No impacts to sensitive, rare, or endangered species would occur with the proposed Project and populations of wildlife and plant species would not drop below self-sustaining levels. According to the biological resources analysis, the implementation of mitigation measure **MM BIO-1** would ensure that potential impacts to avian species during nesting bird season are less than significant by requiring vegetation be removed outside of nesting bird season and requiring preconstruction surveys for nesting birds if vegetation is removed during nesting season. With the implementation of the mitigation measure, the Project impacts would be reduced to less than significant impacts related to migratory and/or nesting birds.

The proposed Project would not eliminate important examples of the major periods of California history or prehistory. No cultural resources have been recorded within the Project site. Although the Project site does not contain any documented cultural resources, there is a possibility that undiscovered, buried resources (including paleontological resources) might be encountered during construction. Given the potential for archaeological and paleontological resources on the Project site, the implementation of mitigation measures **MM CUL-1** and **MM GEO-2** would ensure that potential impacts to archaeological and paleontological resources would be less than significant. The location of the Project site within the territory of the Luiseño people and within proximity to known sacred sites results in a potentially significant impact to tribal cultural resources. While the site has been previously graded and disturbed, resulting in a low potential for cultural resources to be located on the Project site, the potential for cultural resources remains. Given the potential for tribal cultural resources on the Project site, the implementation of mitigation measures **MM TRC-1** and **MM TRC-2** would ensure that potential impacts to tribal resources would be less than significant.

b) Less Than Significant with Mitigation Incorporated. A cumulative impact could occur if the project would result in an incrementally considerable contribution to a significant cumulative impact identified from past, present, and reasonably foreseeable future projects for each resource area. Past projects have occurred and represent the existing condition. Present projects are currently under construction. Future projects have development applications in process or approved, but no physical construction has yet occurred.

As presented in the Initial Study, the proposed project would not result in any unavoidable significant impacts. Resource areas where the proposed project could potentially contribute to cumulative impacts include air quality, biological resources, cultural resources, energy, greenhouse gas emissions, noise, transportation, and utilities and service systems. The analysis presented in the Initial Study assessed potential impacts from cumulative projects. The Traffic Study provides a list of reasonably foreseeable cumulative projects. The Air Quality, Energy, Greenhouse Gas, and Noise studies all rely on the cumulative project data provided in the Traffic Study. No significant unavoidable impacts were identified. No biological resources exist on the Project site since the site consists of an existing school campus and turf fields. Lastly, there is a potential for impacts to Tribal Cultural Resources and archaeological/paleontological resources, however, mitigation measures would reduce those impacts to less than significant thereby avoiding significant cumulative impacts.

c) Less Than Significant with Mitigation Incorporated. All potential impacts for the Project have been identified, and mitigation measures have been provided, where applicable, to reduce potential impacts to less than significant levels. Upon implementation of mitigation measures, as outlined above, the Project would not result in substantial adverse effects on human beings either directly or indirectly. Therefore, after implementation of mitigation measures, the proposed Project would result in a less-than-significant environmental impact on human beings.