

DRAFT INITIAL STUDY FOR THE PROPOSED LYNWOOD SCHOOL MODERNIZATION PROJECT

Prepared for:

Novato Unified School District
1015 Seventh Street
Novato, CA 94945

Prepared by:

Grassetti Environmental Consulting
7008 Bristol Drive
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October 2020

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ENVIRONMENTAL DETERMINATION

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Hazards and Hazardous Materials		Public Services
	Agriculture Resources	X	Hydrology/Water Quality		Recreation
	Air Quality		Land Use/Planning		Tribal Cultural Resources
	Biological Resources		Mineral Resources		Transportation/ Traffic
	Cultural Resources	X	Noise		Utilities/Service Systems
X	Geology/Soils		Population/Housing		Wildlands Fires
	Greenhouse Gas Emissions		Energy		Mandatory Findings of Significance

DETERMINATION: On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION would be prepared.	
I find that although the proposed project could have a significant effect on the environment, there would not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.	X
I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

Michael Woolard, Director of Facilities

Date

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C	Mitigation Monitoring and Reporting Program (to be added in Final IS/MND)

ACRONYMS AND ABBREVIATIONS

ADWF	average dry weather flow
APE	Area of Potential Effect
BAAQMD	Bay Area Air Quality Management District
BMP	Best Management Practice
CARB	California Air Resources Board
DPR	California Department of Parks and Recreation
FEMA	Federal Emergency Management Agency
HPD	Historic Property Directory
CO	carbon monoxide
CO ₂ E	carbon dioxide equivalent
GHG	greenhouse gas
gpd	gallons of wastewater per day
LOS	level of service
MCFCWCD	Marin County Flood Control and Water Conservation District
MCSTOPPP	Marin County Stormwater Pollution Prevention Program
mgd	million gallons per day
MLD	Most Likely Descendant
NAHC	Native American Heritage Commission
NFPD	Novato Fire Protection District
NO _x	nitrogen oxides
NPD	Novato Police Department
NPDES	National Pollutant Discharge Elimination System
NWIC	Northwest Information Center
OHP	State Office of Historic Preservation
O ₃	ozone
PM ₁₀	particulate matter less than 10 microns
PM _{2.5}	particulate matter less than 2.5 microns
RWQCB	Regional Water Quality Control Board
SCH	State Clearinghouse
SFBAAB	San Francisco Bay Area Air Basin
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
Control Board SLF	Sacred Lands File
SO _x	sulfur dioxide
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminant
TMDL	Total Maximum Daily Load
UCMP	University of California Museum of Paleontology
VOC	volatile organic compound
WWTP	Wastewater Treatment Plant

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1. INTRODUCTION

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared by the Novato Unified School District (NUSD or District), 1015 Seventh Street, Novato, CA 94945, pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 et seq.), CEQA Guidelines (Title 14, Section 15000 et seq. of the California Code of Regulations). It provides documentation to support the conclusion that the proposed Lynwood Elementary School Modernization Project (“the Project”), with mitigation identified herein, would not cause a potentially significant impact to the physical environment. The proposed site is located in the City of Novato, in Marin County.

This IS/MND describes the location of the Project site, the Project sponsor’s objectives, and the details of the proposed Project. The Environmental Checklist Form included as Appendix G of the CEQA Guidelines serves as the basis for the environmental evaluation contained in the IS/MND. The Checklist Form examines the specific potential Project-level physical environmental impacts that may result from the construction and operation of the proposed new and expanded facilities onsite. Mitigation measures have been identified to reduce any potentially significant impacts that would otherwise occur with development and operation of the new facilities to a less-than-significant level.

The District will serve as the “lead agency” (the public agency that has the principal responsibility for carrying out and/or approving a Project) for the proposed Project. The governing board of the District is responsible for ensuring that the environmental review and documentation meet the requirements of CEQA. The draft IS/MND is subject to review and comment by responsible agencies and the public during a statutory public review period (30 days). Any necessary revisions will be incorporated in the Final IS/MND.

The Draft Initial Study is circulated on November 6, 2020 for a 30-day review period closing on December 6, 2020. Comments received on this document will be addressed in the Final IS. Should the District approve the Project, it would file a “Notice of Determination” for posting by the County Clerk and the State Clearinghouse. The filing of the notice and its posting starts a 30-day statute of limitations on court challenges to the CEQA review of the Project.

Organization of the IS

This document is organized into the following sections:

SECTION I – INTRODUCTION: Provides background information about the Project name, location, sponsor, and the date this Initial Study was completed.

SECTION II – PROJECT DESCRIPTION: Includes a Project background and detailed description of the proposed Project.

SECTION III – INITIAL STUDY CHECKLIST AND DISCUSSION: Reviews the proposed Project and states whether the Project would have potentially significant environmental effects.

SECTION IV – MANDATORY FINDINGS OF SIGNIFICANCE: States whether environmental effects associated with development of the proposed Project are significant, and what, if any, added environmental documentation may be required.

SECTION V – REFERENCES: Identifies source materials that have been consulted in the preparation of the IS.

SECTION IV – REPORT PREPARERS: Identifies the firms and individuals who prepared the IS.

APPENDICES: Includes technical reports, the Comments and Responses Addendum and Mitigation Monitoring and Reporting Program (in Final IS/MND)

2. PROJECT INFORMATION

Project Name and File Number:	Lynwood Elementary School Modernization Project
Project Location:	1320 Lynwood Drive Novato, CA 94947
Project Applicant and Lead Agency Contact:	Novato Unified School District Mr. Michael Woolard, Executive Director of Facilities Novato Unified School District 1015 Seventh Street Novato, CA 94945 (415) 415 493-4588 MWoolard@nUSD.org
General Plan Designation:	City of Novato, Community Facilities (CF)
Zoning:	City of Novato, Community Facilities (CF)
Project Approvals:	NUSD approval of modernization project; Division of State Architect Approval
Date Initial Study Completed:	October 16, 2020

PROJECT DESCRIPTION

Project Location

The Lynwood Elementary School is located at 1320 Lynwood Drive in the City of Novato, west of Highway 101 and Redwood Boulevard, south of Rowland Boulevard, and east of South Novato Boulevard (see Figure 1, Project Location Map). Locally, the school is bordered by Leafwood Drive to the east and the extension of Lynwood Drive north of Sunset Parkway to the south, with access from both of those streets.

Project Site and Surrounding Land Uses

The school property is bordered by a church/school complex and an inlet to the Bay to the north, single family residences across South Novato Blvd. to the west, multiple-family residences facing Leafwood Drive immediately east of the school, and single-family residences abutting the school, facing Sunset Parkway to the south. The school buildings are clustered on the southern and western portions of the site, with ballfields to the north and east. The site of the proposed expanded kitchen is in the interior of the school property. The school includes a parking lot off of Leafwood Drive that is used primarily by residents on Leafwood Drive. The school campus and surrounding land uses are shown on Figure 2.

Proposed Modernization Project

The proposed project improvements and associated activities are described below. Improvements are shown on Figures 3 and 4. The modernization includes the following elements, which are described further below:

- Modernize classrooms
- Minor upgrades to restrooms
- Replace concrete paving for accessibility
- Remove existing kitchen and replace with new warming kitchen
- Replace and relocate PG&E electrical service equipment
- Reconfigure new drop-off traffic flow at Leafwood Drive
- Reconfigure and re-stripe parking
- New drop-off plaza with landscape design
- New pedestrian sidewalk from Leafwood Drive to drop-off plaza
- Modernize multipurpose building
- Modernize administration building
- Fire alarm system upgrade

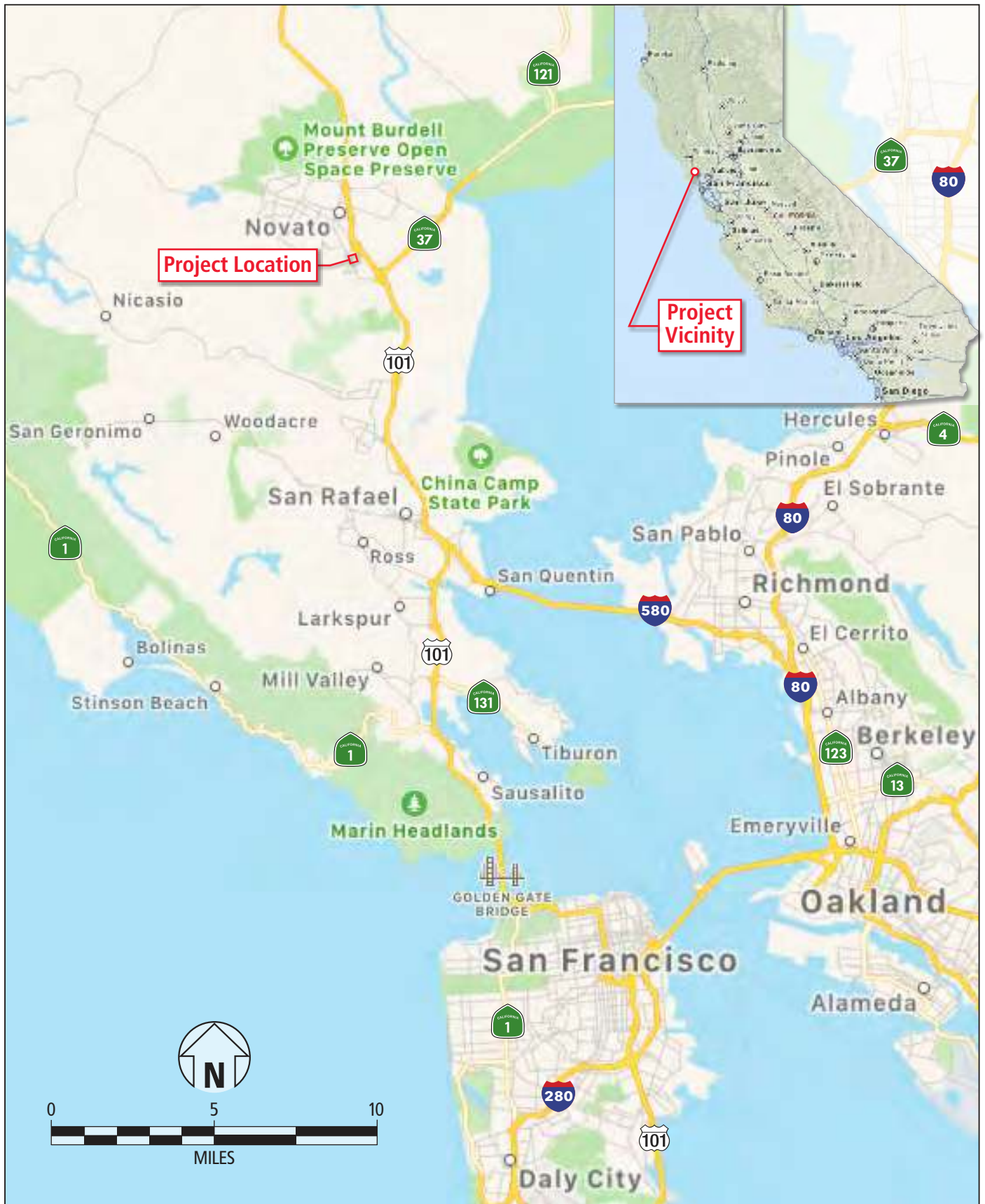


Figure 1
Project Location

Source: TomTom Maps and Grasetti Environmental



Figure 2
Project Vicinity

Source: TomTom Maps and Grasetti Environmental

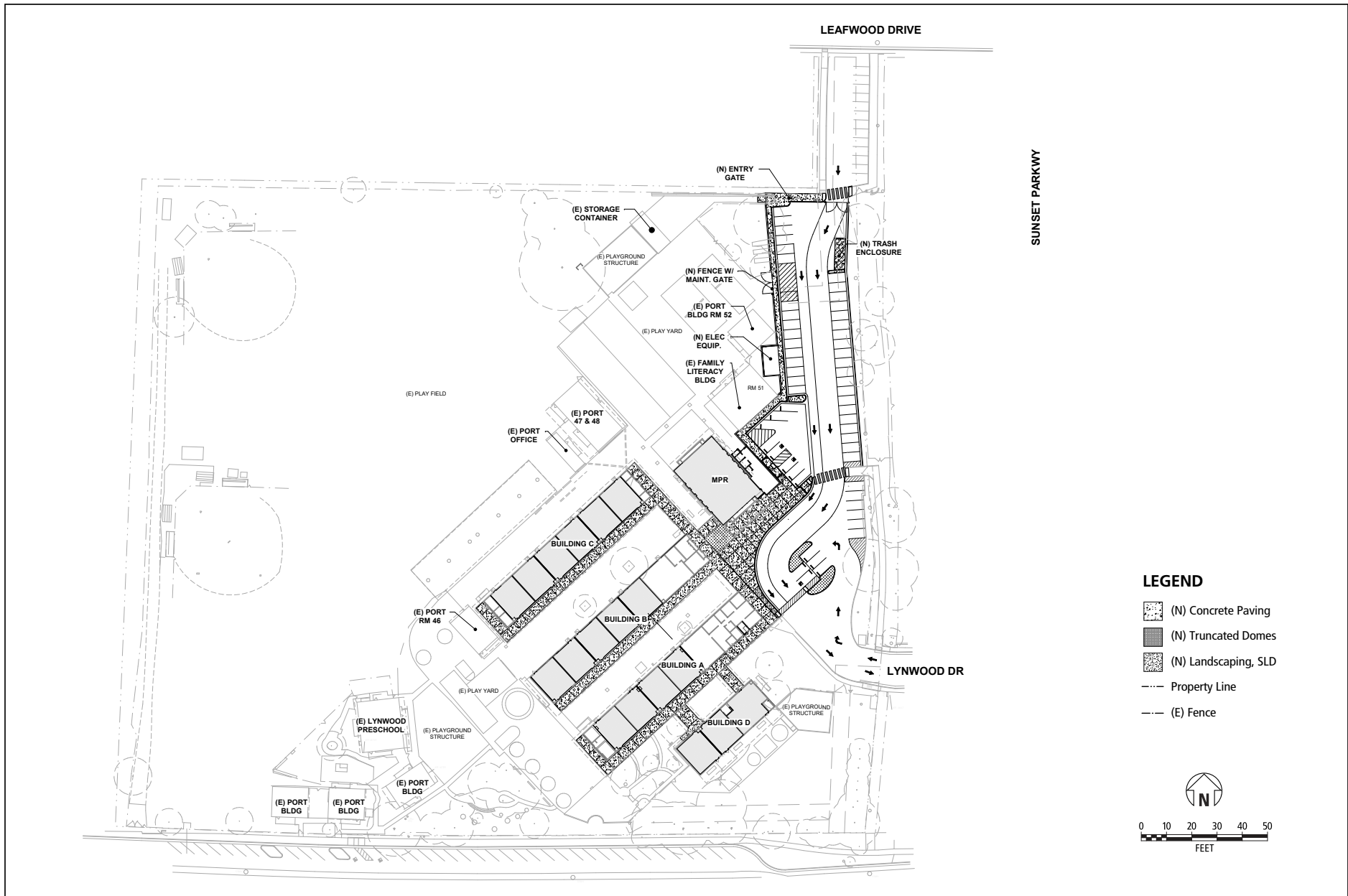


Figure 3
Site Plan

Source: Hibser Yamauchi Architects, Inc.

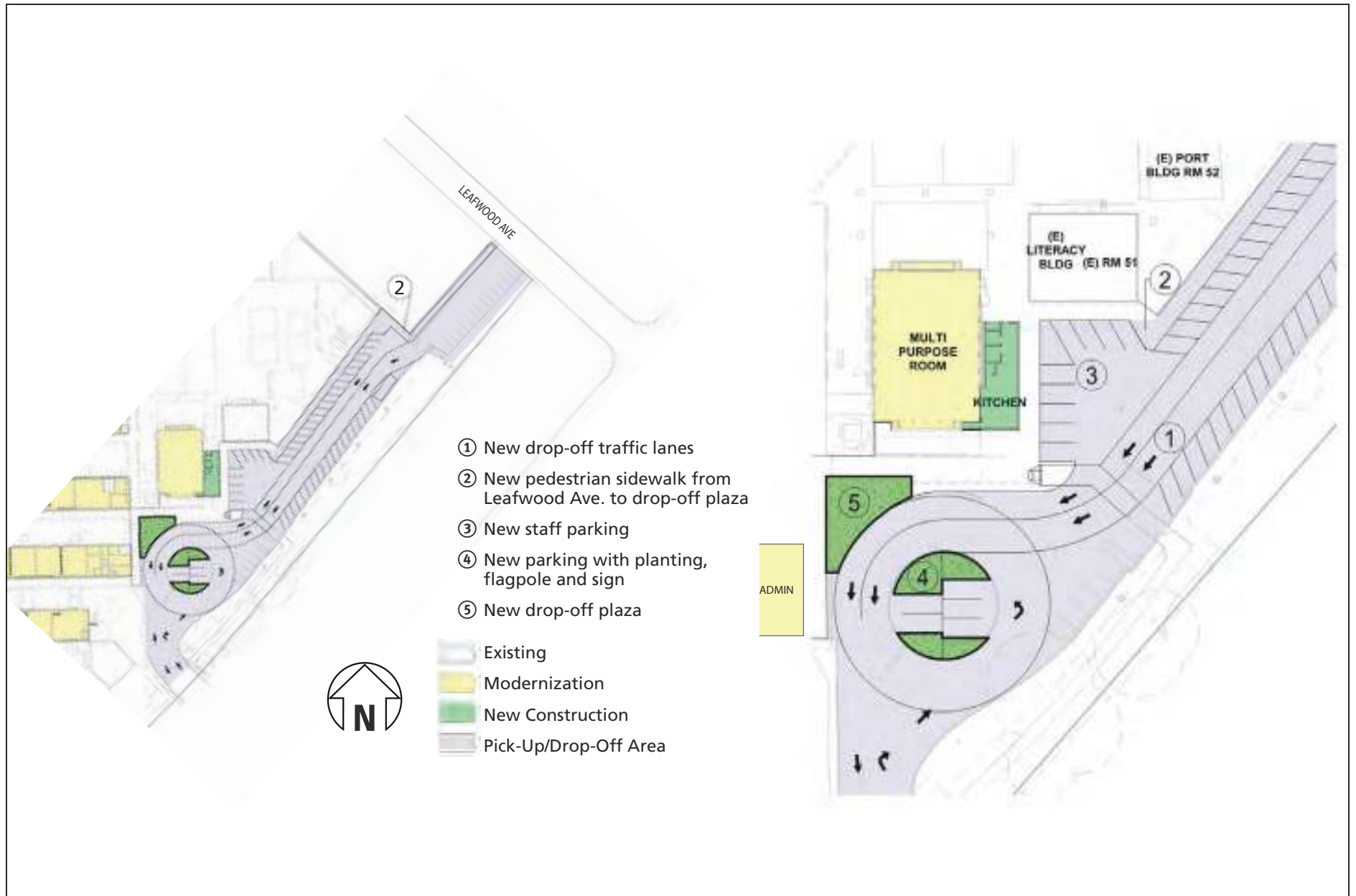


Figure 4
Revised Drop-Off Design

Initial Study for the Lynwood Elementary School Modernization Project

Classroom Modernization

The proposed classroom modernization would occur in classroom Buildings A, B, and C. Classrooms in one portable building also would be renovated. Classroom modernization would consist of interior modifications including:

- New flooring
- New wall finishes
- New countertops
- New lighting
- New fire alarm systems

Modernization also would include minor upgrades to bathrooms (accessibility improvements and lighting). Concrete pathways around the buildings would be replaced for improved accessibility.

Multi-Purpose Room Modernization

The Multi-Purpose Room Building also would be modernized and slightly expanded to include a new warming kitchen area. Building improvements would include:

- Removal of the existing kitchen and replacement with an approximately 400 sq. ft. warming kitchen addition on the east side of the building
- New flooring
- New wall finishes with acoustical surfacing
- New ceiling tiles
- New access to stage area
- New lighting
- New fire alarm system

Administration Building Modernization

Building D, the school's Administration Building also would be modernized. Administration Building modernization would consist of interior modifications including:

- New flooring and wall finishes
- New countertops
- New lighting
- New fire alarm system

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Access and Parking Area Improvements

The school's existing access and parking areas would be reconfigured for a more efficient drop off and pick-up flow (see Figure 4). Currently the school's primary access is via a circle at the end of Lynwood Drive, with secondary access from Leafwood Drive. The paved area to the east of the circle is for staff parking. A small parking lot with 14 spaces also exists off of Leafwood Drive. The proposed new drop-off and pick-up area would be primarily via a new one-way-in access off of Leafwood Drive, with reconfigured staff parking stalls. A secondary access from Lynwood Drive would remain. The number of parking spaces in the drop-off area would change from 48 spaces to approximately 53 spaces, with the addition of the Leafwood lot staff parking, which would be signed for school use only from 7am to 5 pm, week days. The new access and parking layout would include:

- New drop-off traffic lanes
- New pedestrian sidewalk from Leafwood Drive to school drop-off plaza
- New landscaping in drop-off area
- New staff parking
- New parking with planting, flagpole and sign
- New drop-off plaza

School Staffing and Operations Changes

The school has an existing (2019-2020) enrollment of 279 k-5 students. Staff currently includes approximately 30 teachers and administrative/support persons. Additionally, the school provides three pre-school programs with a total of 57 children and 12 staff. No staff or students would be added to the school due to the project. There would be no changes to hours of operation of the school, which are 8:20-3:10 and 8:20-1:30 Wednesdays.

Schedule and Timing

This Project would be constructed in one phase. It is anticipated that construction would begin in mid-June 2021 and would take approximately 3 months to complete (ending around August 20). Construction would occur in a single phase, starting at 7 am and ending around 4:30 pm, with some Saturday work.

Construction Details

Equipment Use. Equipment used during construction would vary by phase, but would include excavators, backhoes, dump trucks, graders, compactors, water trucks, and similar equipment.

Construction Hours. Typical construction hours would be 7:00 am to 4:30 pm, weekdays only.

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Construction Staging Areas. Construction staging area would be located on the school playground.

Construction Workers. There would be approximately 12-15 construction workers onsite on an average day.

Other Agency Approvals

NUSD Approvals

The Novato Unified School District is a local agency with independent discretionary authority over the site's land use for education-related purposes. The District would take approval actions for the Project at a noticed NUSD Board of Trustees Meeting.

Other Approvals

The project would house students and teachers, so it would require Field Act compliance, and review by the Division of the State Architect. Because the project is proposed on NUSD property, and part of a Master Planned Educational Facility, it is exempt from City of Novato land use regulations. It is, however, required to comply with Title 24 and the California Building Code.

3. INITIAL STUDY CHECKLIST

The initial study checklist recommended by the CEQA Guidelines is used to describe the potential impacts of the proposed project on the physical environment.

I. Aesthetics

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) In nonurbanized 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?			X	
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			X	

Background

The project site is currently a developed elementary school in a mostly residential neighborhood. The surrounding area is mostly flat with no prominent scenic features.

As shown in Figures 5 - 7, the school appears modern in design, with an open layout. Buildings are clustered to the south and west, with school fields to the north and east. The school buildings are visible from the rear of residential buildings abutting the school to the east and south, as well as from South Novato Boulevard, from which views are somewhat filtered by occasional landscaping and a chain-link fence. Views of the proposed Multi-Purpose Building expansion area are available only from the rears of the residences facing Sunset Boulevard, across the school's access/parking lot area.



Figure 5: View of Access to Lynwood School from End of Lynwood Drive



Figure 6: View of Parking Area Looking towards Leafwood Drive



Figure 7: View of Lynwood School from Existing Entry Area

Discussion

- a, b, c) There are no scenic vistas at the school site. The proposed project would consist primarily of interior upgrades to existing buildings. The main exterior alterations would be the reconfigured parking area and the small addition to the Multi-Purpose Building. Neither of these alterations would degrade or substantively alter the school's overall visual character. No trees would be removed, and there are no prominent visual features on the school site. Therefore, the proposed project would not substantially degrade the visual character of the project site or its surroundings, nor would it affect any scenic resources. Impacts to a scenic vista or existing visual character of the site would be ***less than significant***.

- d) The proposed project would not include any new exterior lighting. Therefore, it would have **no impact** from light and glare.

II. Agricultural and Forestry Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
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))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
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?				X

Discussion

- a-e) The project site is on a developed school in an established residential and institutional area of the City of Novato. The project site contains no Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or active agricultural operations. There are no Williamson Act lands on the site. There are no forest resources on the site and implementation of the project would not involve the loss of any forest land. Therefore, there would be **no impact** to agricultural or forestry resources.

III. 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:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Result in a cumulatively considerable net increase of any criteria for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

Background

According to the Bay Area Air Quality Management District (BAAQMD), Marin County is a distinct climatological sub-region of the Bay Area air basin. The air pollution potential is highest in eastern Marin where most of its population resides. In the southeast, where the influence of marine air is greatest, air pollutant levels are relatively low, but they increase as one moves north and the marine influence decreases. Marin County has few large-scale air polluting industries, rather most of the air pollutants affecting its population come from motor vehicles — especially from traffic using Highway 101 and the connecting major arterial roadways.

Ozone and suspended particulate matter (i.e., two types of the latter - particulate matter less than ten microns in diameter [PM₁₀] and particulate matter less than 2.5 microns in diameter [PM_{2.5}]) are of particular concern in the Bay Area, which is currently designated “nonattainment” for state and national ozone ambient air quality standards, for the state PM₁₀ standards, and for state and national PM_{2.5} standards; it is “attainment” or

“unclassified” with respect to all the other major air pollutants. The BAAQMD maintains a number of air quality monitoring stations, which continually measure the ambient concentrations of major air pollutants throughout the Bay Area. The closest such monitoring station to the Project site is at 534 4th Street in San Rafael, about 10 miles to the south. The data collected (BAAQMD. *Air Quality Summary Reports*) show violations of the PM_{2.5} particulate standard on several days per year over the last two years, see Table AQ-1. Such occurrences reflect the increased influence of wildfires on air quality in recent years.

Table AQ-1: Local Ambient Air Quality Monitoring Summary

Pollutant	Air Quality Standard	Maximum Concentrations and Number of Days Standards Exceeded		
		2016	2017	2018
Ozone				
Maximum 8-hour concentration (ppm)		67	63	53
# Days 8-hour California standard exceeded	70 ppb	0	0	0
Nitrogen Dioxide (NO₂)				
Maximum 1-hour concentration (ppb)		46	53	55
# Days national 1-hour standard exceeded	100 ppb	0	0	0
Suspended Inhalable Particulates (PM₁₀)				
Maximum 24-hour concentration (µg/m ³)		27	94	16 6
# Days national 24-hour standard exceeded	150 µg/m ³	0	0	1
Suspended Fine Particulates (PM_{2.5})				
Maximum 24-hour concentration (µg/m ³)		15.6	74.7	16 7.6
# Days national 24-hour standard exceeded	35 µg/m ³	0	8	13

Notes:

As monitored at the BAAQMD station at 534 4th Street in San Rafael.

µg/m³ = micrograms per cubic meter

ppb = parts per billion.

Source: BAAQMD Annual Bay Area Air Quality Summaries

<http://www.baaqmd.gov/about-air-quality/air-quality-summaries>

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The Project site is located in southern Novato in northeast Marin County. The largest group of local stationary air pollutant sources, which operate under BAAQMD permits, cluster in Novato's commercial/industrial areas on either side of Highway 101 (BAAQMD, *Stationary Source Screening Analysis Tool*). Highway 101 passes about 1500 feet east of the project site; it is the major local source of air pollutants, emitted by the thousands of motor vehicles using it daily, that affect Novato's population, including the students/faculty/staff at Lynwood Elementary School.

Analysis Methodology and Significance Criteria

The air quality analysis addressing this Initial Study checklist items was performed using the methodologies and significance thresholds recommended in *CEQA Air Quality Guidelines* (*Guidelines*; BAAQMD, May 2017, Table 2-1). The air pollutant impacts evaluated in the Item a and Item b discussion below are from precursors to ozone formation (i.e., reactive organic compounds [ROG] and nitrogen oxides [NO_x]) and small-diameter particulate matter (i.e., PM₁₀ and PM_{2.5}).

According to the *Guidelines*, any Project would have a significant potential for obstructing air quality plan implementation or making a cumulatively considerable contribution to a regional air quality problem if its pollutant emissions would exceed any of the thresholds presented in Table AQ-2 during construction or operation.

TABLE AQ-2: Significance Thresholds for Air Pollutant Emissions

Pollutant	Construction Average Daily (lbs./day)	Operational	
		Average Daily (lbs./day)	Maximum Annual (tons/year)
Reactive Organic Gases (ROG)	54	54	10
Oxides of Nitrogen (NO _x)	54	54	10
Inhalable Particulate Matter (PM ₁₀)	82 (exhaust)	82	15
Fine Inhalable Particulate Matter (PM _{2.5})	54 (exhaust)	54	10
PM ₁₀ /PM _{2.5} (Fugitive Dust)	BMPs ^a	N/A	N/A

Notes: BMPs = Best Management Practices
N/A = Not Applicable

^a If BAAQMD Best Management Practices (BMPs) for fugitive dust control are implemented during construction, the impacts of such residual emissions are considered to be less than significant.

Source: Bay Area Air Quality Management District, May 2017, *CEQA Air Quality Guidelines*.

In addition to the major air pollutants (as identified above), many other chemical compounds, generally termed toxic air contaminants (TACs), pose a present or potential hazard to human health through airborne exposure. A wide variety of sources, stationary (e.g., dry cleaning facilities, gasoline stations, and emergency diesel-powered generators, etc.) and mobile (e.g., motor vehicles, construction equipment, etc.), emit TACs. The health effects associated with TACs are quite diverse. TACs can cause adverse health effects from long-term exposure (e.g., cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage) and/or from short-term exposure (e.g., eye watering, respiratory irritation, running nose, throat pain, and headaches). Most of the estimated carcinogenic/chronic health risk in California can be attributed to relatively few airborne compounds, the most important being particulate matter from diesel-fueled engines (DPM). The California Air Resources Board (CARB. *Summary: Diesel Particulate Matter Health Impacts*) has identified DPM as being responsible for about 70 percent of the cumulative cancer risk from all airborne TAC exposures in California.

The *Guidelines* establish a relevant zone of influence for an assessment of project-level and cumulative health risk from TAC exposure to an area within 1,000 feet of a project site. Project construction-related or Project operational TAC impacts to sensitive receptors within the zone that exceed any of the following thresholds are considered significant:

- An excess cancer risk level of more than 10 in one million
- A non-cancer hazard index greater than 1.0.
- An incremental increase of greater than 0.3 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) for annual average $\text{PM}_{2.5}$ concentrations.

Cumulative impacts from TACs emitted from freeways, state highways or high-volume roadways (i.e., the latter defined as having traffic volumes of 10,000 vehicles or more per day or 1,000 trucks per day), and from all BAAQMD-permitted stationary sources within the zone to sensitive receptors within the zone that exceed any of the following thresholds are considered cumulatively significant:

- A combined excess cancer-risk levels of more than 100 in one million.
- A combined non-cancer hazard index greater than 10.0.
- A combined incremental increase in annual average $\text{PM}_{2.5}$ concentrations greater than $0.8 \mu\text{g}/\text{m}^3$.

Discussion

- a) The BAAQMD's current *Clean Air Plan: Spare the Air, Cool the Climate (2017 Plan)*, focuses on two closely-related goals: protecting public health from air pollutant exposures and reducing Bay Area emissions of heat-trapping gases (termed greenhouse gases [GHG]) that promote global climate change (Project GHG impacts will be addressed in Section VIII below).

Key elements in the *2017 Plan* control strategies, with the underlined items having particular applicability to the Project, are:

Controls on Buildings and Energy Sources:

- Expand the production of low-carbon, renewable energy by promoting on-site technologies such as rooftop solar, wind and ground-source heat pumps.
- Support the expansion of community choice energy programs throughout the Bay Area.
- Promote energy and water efficiency in both new and existing buildings.
- Promote the switch from natural gas to electricity for space and water heating in Bay Area buildings.

The Project would modernize Lynwood's classrooms, office/administrative spaces, and kitchen facilities; replace electrical service equipment; and replace/reconfigure the concrete paving, and student drop-off and parking areas, all without increasing the school's student enrollment. Thus, the Project would primarily accommodate the existing needs of the NUSD and would not have the potential to increase regional housing, employment, and/or population levels in Marin County or the Bay Area, which are the bases of the *2017 Plan* regional emission inventories and control strategies. The new Project facilities and infrastructure will comply with the CALGreen (Title 24) statewide building energy code, a control strategy promoted by the *2017 Plan*. The school's electrical systems will be modernized and will remain the facility's dominant energy source.

Compliance with BAAQMD-approved CEQA thresholds of significance is another condition for determining Project consistency with *2017 Plan* control measures. Thus, the Project would have ***less-than-significant*** impacts because it meets all BAAQMD CEQA emission thresholds (as addressed in the Item b discussion below).

- b) The *Guidelines* recommend quantification of Project emissions and their comparison to the CEQA significance thresholds. For construction, equipment emission rates from the California Emissions Estimator Model (CalEEMod, Version 2016.3.2) were used, along with Project equipment specifications per phase as provided by the Project engineer.

Table AQ-3 shows the estimated exhaust air-pollutant emissions for all Project phases from construction equipment, haul/delivery trucks, and worker commute vehicles including comparisons with the BAAQMD CEQA significance thresholds. As can be seen in the table, the project would have a ***less-than-significant*** impact from construction emissions because they would all be below BAAQMD significance thresholds.

TABLE AQ-3: Project Construction Pollutant Emissions (Average Pounds per Day)

Phase	NOx	ROG	PM ₁₀	PM _{2.5}
	lbs./day			
Demolition/Clear & Grub	6.75	0.60	0.24	0.22
Rough Grade	26.27	2.66	1.20	1.10
Fine Grade	17.12	1.77	0.78	0.72
Rock Placement	17.97	1.82	0.79	0.72
Paving	10.05	0.90	0.49	0.45
Fencing	2.91	0.49	0.17	0.16
Landscape	5.37	0.78	0.29	0.27
Concrete	8.21	0.68	0.28	0.25
Peak Daily Total	26.27	2.66	1.20	1.10
Significance Thresholds	54	54	82	54
Significant Impact?	No	No	No	No

- c) The Project site abuts single-family residential uses on three sides, with commercial uses to the northwest that front Rowland Boulevard. The existing residential uses along Novato Boulevard are likely the maximally exposed sensitive receptors (MESR) to TACs that would be emitted during Project construction and from existing local stationary and mobile TAC sources. A screening health risk assessment (HRA) for TAC and particulate exposures to nearby sensitive receptors from Project construction activities was conducted following established guidelines (BAAQMD. *Recommended Methods for Screening and Modeling Local Risks and Hazards*).

Cancer risk is the probability of developing cancer from a lifetime exposure (i.e., 70 years) to carcinogenic substances. The likelihood of other adverse chronic health impacts unrelated to cancer is measured using a hazard index (HI) defined as the ratio of a project's incremental annual TAC concentration to a published reference exposure level (REL; which for DPM is 5 µg/m³). Project incremental cancer risks and HI were estimated by applying established DPM toxicity factors to the construction equipment exhaust DPM concentrations estimated by the SCREEN3 model (Lakes Environmental).

As shown in Table AQ-4, the cancer risk from Project construction DPM at the MESR would be 0.13 additional cancer cases per million people exposed, which is well below the project-level CEQA threshold for cancer risk. The HI from Project construction DPM would be 0.003, which is well below the BAAQMD threshold for

chronic hazard. The annual PM_{2.5} concentration from Project construction would be 0.017 µg/m³, which is well below the Project-level CEQA threshold.

After construction is complete, the Project would not include substantial new stationary TAC emission sources nor add substantial mobile TAC emission sources (i.e., by BAAQMD definition, daily incremental traffic volumes of 10,000 or greater) to local streets. As also shown in Table AQ-4, the cumulative TAC exposure at the MESR would be considerably below the BAAQMD cumulative thresholds for cancer risk, chronic hazard and annual PM_{2.5} concentration. Therefore, this impact would be ***less than significant***.

To further reduce the exposure of local sensitive receptors to PM₁₀ and PM_{2.5} in the fugitive dust released during Project construction, the BAAQMD *Guidelines* also require that all Bay Area construction projects implement Best Management Practices (BMPs) to control fugitive dust emissions. Thus, the following basic control measures must be implemented by the Project construction contractor:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
 - All haul trucks transporting soil, sand, or other loose material off site shall be covered.
 - All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
 - All vehicle speeds on unpaved surfaces shall be limited to 15 miles per hour.
 - All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
 - A publicly visible sign shall be posted with the telephone number and person to contact at Novato Unified School District regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be included to ensure compliance with applicable regulations.
- d) Project operation would not introduce substantial sources of odor emissions to the area. However, the Project's diesel-powered construction equipment would emit odorous exhaust that could impact existing local residents. The Project construction fleet would be small (i.e., one excavator, one front-end loader, one bulldozer, one paver, and one roller) and used as needed over the eight construction phases for limited times during the renovation (i.e., each phase a few

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days to a few weeks with total duration of 2-3 months), construction odor emissions would not affect a substantial number of people at any one time, nor be substantially objectionable at any particular local receptor for extended periods during Project construction. Therefore this impact would be *less than significant*.

TABLE AQ-4: Project and Cumulative TAC Impacts on Maximally Exposed Existing Sensitive Receptor (MER) in the Project Site Vicinity

BAAQMD Source #	Facility/Address	Cancer Risk	Hazard Index	PM _{2.5} Concentration
From Permitted Stationary TAC Sources				
112315	Novato Shell/1390 S Novato Boulevard	2.35	0.012	0
21788	Fireman's Fund Insurance Company/777 San Marin Drive	0.39	< 0.001	<0.001
From Major Roadways*				
None within 1000 feet of the Project site		----	----	----
From Project				
Project Construction Impacts		0.13	0.003	0.017
Project-Level Significance Thresholds		10	1.0	0.3
Significant Project-Level Impact after Project Mitigation?		No	No	No
From Cumulative Sources				
Cumulative Sources Impact after Project Mitigation		2.87	0.015	0.018
Cumulative Significance Thresholds		100	10	0.8
Significant Cumulative Impact after Project Mitigation?		No	No	No

*Highway 101 passes about 1500 feet west of the Project site; Rowland Boulevard and Novato Boulevard, the closest high-volume, local streets, each carrying less than 10,000 motor vehicles per day.

IV. Biological Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 Wildlife or U.S. Fish and Wildlife Service?				X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
c) Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
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?				X

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Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
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?				X

Background

The project site is in a developed condition and does not contain any natural habitats, and noise and activity levels on the site are typically high due to school activities and regular use of the athletic field (currently the school is closed for health and safety reasons, so activity is limited). The site is in an urban area and is isolated from open space/natural habitats; these factors limit the potential for special-status species to occur. In addition, no trees are proposed for removal.

Discussion

- a) The project site is located on a developed school campus site, and there are no natural habitats present in the proposed construction area. Given the absence of suitable habitat, no special-status plant species are expected to occur. There would be **no impact** on special-status plant or animal species or communities.
- b) There is no riparian habitat on the site, so there would be **no impact** to any such habitat from the project.
- c) There are no wetlands or water habitats on the site, which is an existing developed elementary school. Therefore, the project would have **no impact** to wetlands or other water habitats.
- d) Wildlife corridors are described as pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, and other natural or manmade obstacles such as urbanization. The project site is located in an urban area and is bordered on all side by dense development. Therefore, the project does not link areas of open space and would not serve as part of a wildlife movement corridor. Given the above, the proposed project would not interfere with the local or regional movement of wildlife species. Therefore, the project would have **no impact** to wildlife movement.

- e) The City of Novato regulates the removal or alteration of trees to preserve scenic beauty, maintain property values, minimize erosion problems, and maintain the attractiveness of the Novato area. However, the City does not have jurisdiction over on-site activities, as this site falls under NUSD jurisdiction. In addition, no trees are proposed for removal as part of the project. Therefore, the District would not be required to obtain a tree removal permit from the City of Novato for their removal. **No impact** would occur.

- f) The project site is not located within the boundaries of a habitat conservation plan or a natural community conservation plan; therefore, the project would not conflict with any habitat plans and there would be **no impact**.

V. Cultural Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historic resource as defined in Section 15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?				X
c) Disturb any human remains, including those interred outside of formal cemeteries?				X

Background

This analysis considers the project's impact to historical and archaeological resources, and human remains on the project site.

Discussion

a, b, c) Nearly all of the proposed project activities would be within existing buildings or on existing paved areas. The 400-sq. ft. expansion of the existing Multi-Purpose Building would be on the side of an existing building in a developed school campus, and would not involve excavation below previously disturbed areas. The access improvements would be near-surface paving and roadway work on previously paved areas. Therefore the proposed project would have no potential to affect any cultural or historic resources and **no impact** would occur.

VI. Energy

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?				X
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X

Discussion

- a) The Project would not result in wasteful, inefficient, or unnecessary consumption of energy, given that the Project would renovate existing elementary school facilities with no increase in student enrollment; and Project compliance with State of California energy conservation regulations (as referenced in the discussion below). Therefore, **no impact** would occur.
- b) The California State Building Standards Commission adopted updates to the California Green Building Standards Code (CALGreen), which went into effect in January 2011. CALGreen contains: 1) requirements for construction site selection, storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, and site irrigation conservation; 2) provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition; and 3) requires building commissioning, which is a process for verifying that all building systems, like heating and cooling equipment and lighting systems, are functioning at their maximum efficiency. Thus, CALGreen provides the minimum standard that buildings need to meet in order to be certified for occupancy, but does not prevent a local jurisdiction from adopting more stringent requirements. It is intended to (1) reduce GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; and (3) reduce energy and water consumption. The Project would be built on accord with California's CALGreen standards. Therefore, **no impact** would occur.

VII. Geology and Soils

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Expose people or structures to 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.)				X
ii) Strong seismic ground shaking?		X		
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?		X		
c) Be located in a geological 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?		X		
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		X		
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?				X
f) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?			X	

Background

This analysis considers the project's potential impacts on unique paleontological resources unique geologic features on the project site. Seismic and soils hazards information had been derived from local plans and regional databases, as well as a soils report completed for the project by Miller Pacific Engineering (October 2020).

Regional geologic mapping (Rice, 1974), indicates the site is underlain predominantly alluvial deposits (map symbol Qa), which typically consists of poorly- to moderately-sorted, unconsolidated clay, silt, sand, and gravel. Sandstone and shale bedrock are mapped to the east and west of the site and soft deposits of Bay Mud is mapped to the immediate north. An uncertainly located/concealed fault trace is mapped north of the site, which juxtaposes Franciscan sandstone against Mélange bedrock of the same formation farther to the northwest. This fault is interpreted to be associated with the emplacement of the Franciscan complex during Tertiary time and as such, is presumed inactive.

Miller Pacific's subsurface exploration generally confirms the regionally mapped geologic conditions at the site. The project site is underlain by interbedded alluvial deposits, including approximately 9-feet of dense clayey sand overlying approximately 13-feet of medium stiff to very stiff, low plasticity sandy clay. Weathered sandstone bedrock was encountered approximately 22-feet below the ground surface. The existing school site has been graded and likely filled in areas when the school was constructed.

The site is located in the seismically active San Francisco Bay Area. While no faults underlie the site, nearby active faults include the Hayward Fault, approximately 7 miles east of the site; the Rogers Creek Fault, about 9 miles northeast of the site, the San Andreas Fault, about 12.5 miles west of the site, and the San Gregorio fault, about 14 miles southwest of the site. Major earthquakes potentially affecting the project site are possible on all of these faults. Due to their proximity to the site, the Hayward and Rogers Creek faults have the greatest likelihood of generating strong seismic shaking on the site. Studies indicate that the highest probability of a Richter Magnitude 6.7 or above earthquake in the Bay Area would be on those two faults, with a 33% likelihood of a major earthquake by 2043. The project site is in an area subject to "very strong" shaking and high to very high liquefaction potential in the event of a major earthquake in the region (MTC/ABASHG Hazards Viewer Map accessed July 31, 2020).

Discussion

- a)
 - i. Based on available published geologic information, the project site is not located within an Alquist Priolo Earthquake Fault Zone. The potential for fault rupture on the side is therefore considered to be low and **no impact** would occur.
 - ii. The site would be subject to "very strong" ground shaking in the event of a major earthquake on the major regional fault zones. This shaking could damage buildings and

cause ground failures that also could affect the structure and infrastructure (these ground failures are discussed below). This impact is **potentially significant** but can be reduced to a **less-than-significant** level with implementation of Mitigation Measure GEO-1, below.

iii. Miller Pacific conducted a liquefaction potential study of the site soils and determined that the site has a moderate potential for liquefaction in a major earthquake in the region. This shaking could damage buildings and cause ground failures that also could affect the structure and infrastructure (these ground failures are discussed below). This impact is **potentially significant** but can be reduced to a **less-than-significant** level with implementation of Mitigation Measure GEO-1, below.

Potential for seismically induced ground settlement, lurching, and ground cracking were determined to be low (Miller Pacific 2020)

- iv. The nearly level site does not contain any slopes that would be subject to landslide hazards.
- b) The site is generally flat and mostly covered by existing school facilities, paving, and landscaping, which is not susceptible to erosion. After project construction, runoff from the site would be minimally increased and no increase in erosion would occur. All project runoff would be directed to existing City storm drain systems, with no change from existing drainage, therefore this impact is considered **less than significant**.
- c) Please see response to item a) iii, above. This impact would be reduced to a **less-than-significant** level by implementation of Mitigation Measure GEO-2, below.
- d) Expansive soils shrink and swell with fluctuations in moisture content and are capable of exerting significant expansion pressures on building foundations, interior floor slabs, and exterior flatwork. Distress from expansive soil movement can include cracking in walls, cracked door and/or window frames, and uneven floors and cracked slabs. Flatwork, pavements, and concrete slabs-on-grade are particularly vulnerable to damage from soil swelling. Compliance with recommendations in the project geotechnical report (see Mitigation Measure GEO-2) would assure that this impact would be **less than significant**.
- e) The proposed project would be served by the City's sewer system and would not include any septic systems. Therefore, **no impact** would occur with respect to adequacy of site soils for septic systems.
- f) The project would involve minor excavation and trenching for the new electrical connections and construction of the kitchen addition to the Multi-Purpose Building. That work would be in previously disturbed soils and artificial fill that were graded when the school was constructed, therefore **No impact** would occur to any paleontological

resources.

Mitigation Measures

Mitigation Measure GEO-1: The project structures and foundations shall be designed in accordance with the most recent version (2016) of the California Building Code. Recommended seismic coefficients are provided in Section 5.2 of the Miller Pacific Geotechnical Report (2020) shall be included in the project design.

Mitigation Measure GEO-2: The building's foundation systems shall be designed to withstand differential settlement and expansive soils, as identified in the project geotechnical report.

VIII. Greenhouse Gas Emissions

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Background

Greenhouse gases (GHGs) are atmospheric gases that capture and retain a portion of the heat radiated from the earth after it has been heated by the sun. The primary GHGs are carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), ozone, and water vapor. While GHGs are natural components of the atmosphere, CO₂, CH₄, and N₂O, are also emitted in substantial quantities from human activities and their accumulation in the atmosphere over the past 200 years has substantially increased their concentrations. This accumulation of GHGs has been implicated as the driving force behind global climate change.

Human emissions of CO₂ are largely by-products of fossil fuel combustion, whereas CH₄ results from off-gassing associated with organic decay processes in agriculture, landfills, etc. Other GHGs, including hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, are generated by certain industrial processes. The global warming potential of GHGs are typically reported in comparison to that of CO₂, the most common and influential GHG, in units of “carbon dioxide- equivalents” (CO₂e).

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

Discussion

- a) The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for air quality regulation in the nine-county San Francisco Bay Area Air

Basin. As part of that role, the BAAQMD has prepared *CEQA Air Quality Guidelines* that specify a project-level CEQA significance threshold of 1,100 metric tons of CO₂e per year. And since this emission level is also considered the definition of a cumulatively considerable contribution to the global GHG burden, it is also the cumulative significance threshold for GHG emissions. The BAAQMD has not defined significance thresholds for temporary (e.g., construction) GHG emissions. But for this Initial Study, the *Guidelines* threshold has been used to assess both permanent and temporary GHG impacts associated with the Project.

The CalEEMod model's included construction equipment emissions rates were used, along with the project-specific equipment types/numbers and use durations provided by the Project engineers, to quantify Project construction GHG emissions – estimated at 33.7 metric tons of CO₂e. The Project's GHG operational emissions would not increase from existing levels because student enrolment would not change with the Project renovations. Therefore, Project GHG emission impacts would be ***less than significant***.

- b) Assembly Bill 32 (AB32), the California Global Warming Solutions Act, requires the CARB to lower State GHG emissions to 1990 levels by 2020—a 25% reduction statewide with mandatory caps for significant GHG emission sources. AB32 directed CARB to develop discrete early actions to reduce GHG while preparing the Climate Change Scoping Plan in order to identify how best to reach the 2020 goal. Statewide strategies to reduce GHG emissions to attain the 2020 goal include the Low Carbon Fuel Standard (LCFS), the California Appliance Energy Efficiency regulations, the California Renewable Energy Portfolio standard, changes in the motor vehicle corporate average fuel economy (CAFE) standards, and other early action measures that would ensure the state is on target to achieve the GHG emissions reduction goals of AB 32.

The BAAQMD's *Spare the Air, Cool the Climate (2017 Plan)* is consistent with the GHG reduction targets adopted by the State of California, laying the groundwork for a long-term effort to reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. The *2017 Plan* defines an integrated, multipollutant control strategy to reduce GHG emissions based on the following key priorities:

- Reduce emissions of “super-GHGs” such as methane, black carbon and fluorinated gases.
- Decrease demand for fossil fuels (i.e., gasoline, diesel and natural gas).
 - Increase efficiency of the energy and transportation systems.
 - Reduce demand for vehicle travel, and high-carbon goods and services.
- Decarbonize the energy system.
 - Make the electricity supply carbon-free.
 - Electrify the transportation and building sectors.

The State Building Standards Commission adopted updates to the California Green Building Standards Code (CALGreen), which went into effect in January 2011. CALGreen contains requirements for construction site selection, storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, and site irrigation conservation. CALGreen provides the minimum standard that buildings need to meet in order to be certified for occupancy, but does not prevent a local jurisdiction from adopting more stringent requirements. CALGreen is intended to (1) reduce GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; and (3) reduce energy and water consumption.

The *Climate Change Action Plan* (CCAP - City of Novato. 2009) is the City's first attempt to specify local strategies to address global climate change by decreasing local greenhouse gas emissions, ensuring local conformity with California climate change legislation, and preparing the City for climate change impacts. As part of the CCAP, the City inventoried GHG from municipal and community-wide sources to establish a baseline to guide emissions reduction strategies. The CCAP includes local actions to reduce GHG emissions in the key sectors of energy use, transportation, and solid waste.

The Project would be required to obtain building permits for construction, which would ensure compliance with CALGreen. Thus, the Project would not conflict with the goals and policies of AB32 and the CCAP. The project would have a ***less-than-significant*** impact related to this issue.

IX. Hazards and Hazardous Materials

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
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?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
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?				X
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 for people residing or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X

Discussion

- a, b) Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during

construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, the project would be required to implement a Stormwater Pollution Prevention Plan and a Spill Prevention Plan during construction activities minimize the hazard of contamination from construction materials.

The proposed project would not entail the large quantity storage or usage of hazardous materials on the site, other than cleaning supplies and materials that are typical of schools. These substances would be containerized in small quantities within secure areas and would comply with all applicable storage, handling, usage, and disposal requirements. The potential risks posed by the use and storage of these materials are limited primarily to the immediate vicinity of the materials. With proper use they do not pose a health hazard to the people using them or occupants of the site. Any transport of these materials would be required to comply with various federal and state laws regarding hazardous materials transportation.

In summary, the proposed project would not create a significant hazard to the public or the environment from routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions. Impacts would be ***less than significant***.

- c) The proposed project site is located on an existing school campus. Construction of interior renovations and the kitchen addition would occur when school is not in session, therefore, implementation of the proposed project would not result in emission of hazardous materials or wastes that would pose a serious health risk to school activities. There are no significant or extraordinary conditions associated with the project that would result in the release of hazardous or acutely hazardous materials, substances, or waste. The project would not result in emission of hazardous materials or wastes that would pose a serious health risk to activities at that new school. Therefore, the impact would be ***less than significant***.
- d) The site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962 (Cortese List)¹. Therefore, ***no impact*** would occur.
- e) The project site is not within an Airport Land Use Plan area, or within two miles of a public or public-use airport or a private airstrip. Therefore, it would not present a hazard to air safety, and ***no impact*** would occur.
- f) The project is not located in the vicinity of a private airstrip. Therefore, there would be ***no impact*** associated with safety hazards from such airstrips.
- g) Construction and operation of the project are not expected to interfere with the City's Emergency Preparedness Plan or Emergency Response Plan. There would be no increase in students or staff at the site, and the access and parking for staff and visitors

¹ <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=1320+Lynwood+Drive+novato>

would be improved. Access plans would be reviewed by the Fire Department and Division of State Architect for safety. The new warming kitchen would be constructed in compliance with applicable fire safety codes. In addition, upgraded fire alarm systems would be added to the classroom and administration buildings. It would be sprinklered and constructed under current applicable building codes. The project would not in any way adversely affect roadways or traffic congestion in the project area. Therefore, it would not adversely affect emergency response or access. **No impact** would occur.

- h) The project is in a flat, fully developed urban area. It is completely surrounded by urban uses and the nearest wildfire-hazard areas are several miles west of the site. Therefore, the project would have **no impact** with respect to wildfire hazards.

X. Hydrology and Water Quality

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?		X		
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				X
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: <ul style="list-style-type: none"> i) result in substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site; 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 iv) impede or redirect flood flows? 				X
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

Discussion

a, c, e) Under Section 402 of the Clean Water Act, the U.S. EPA has established regulations through the National Pollution Discharge Elimination System (NPDES) stormwater program to control stormwater discharges, including those associated with construction activities. The NPDES stormwater permitting program regulates stormwater quality from construction sites. The State Construction General Permit (CGP) requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and the use of appropriate best management practices (BMPs) for erosion control and spill prevention during construction. Dischargers whose Projects disturb one or more acres of soil or whose Projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the CGP for Discharges of Stormwater Associated with Construction Activity (CGP Order 2009-0009-DWQ).

The City of Novato is under the jurisdiction of the Marin County Flood Control and Water Conservation District (MCFWCWD), which manages stormwater and flooding problems in Marin County and is responsible for administering the Marin County Stormwater Pollution Prevention Program (MCSTOPPP) and FEMA Flood Insurance Program. (City of Novato Existing Conditions Report, 2016, page 12-3)

The project site is relatively flat and mostly covered with existing school facilities including some landscaping. Development of the addition to the Multi-Purpose Room and replacement of concrete pathways would require disturbance and light grading, as described in the Project Description. No topographic changes would occur as a result of the project.

During exterior construction activities, there would be a potential for surface water to carry sediment from on-site erosion and small quantities of pollutants into the City's stormwater system and, ultimately, San Francisco Bay. Soil erosion may occur along Project boundaries during construction in areas where temporary soil storage may be required. Small quantities of pollutants may enter the storm drainage system, potentially degrading water quality.

Construction of the exterior portions of the proposed project also would require the use of gasoline-powered equipment. Chemicals such as gasoline, diesel fuel, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, solvents, glues, and other substances would be used during construction. An accidental release of any of these substances could degrade the water quality of the surface water runoff and add additional sources of pollution into the drainage system.

The proposed project would be required to comply with the State CGP. The District would be required to develop and implement a SWPPP that identifies appropriate construction BMPs in order to minimize potential sedimentation or contamination of storm water runoff generated from the project site. The SWPPP would identify the risk level for erosion and sedimentation and how much monitoring of potential pollutants is required. Implementation of a SWPPP as required would ensure that the construction of the proposed project would not violate any water quality standards or waste discharge requirements and potential impacts would be ***less than significant***.

As required under State Water Resources Control Board Order No. R2 2009-0074, the City of Novato requires regulated Projects, such as this one, to prepare a Stormwater Control Plan (SWCP). The SWCP must include post-construction stormwater treatment measures such as bio-retention facilities and source controlled BMPs. The SWCP must also address ongoing maintenance of those facilities.

Prior to the issuance of grading permits or building permits for the exterior improvements (whichever occurs first), the Project would be required to obtain coverage under the State CGP (NPDES General Permit for Stormwater Discharges Association with Construction Activity (Order 2009-0009 DWQ) by preparing a Stormwater Pollution Prevention Plan (SWPPP) and submitting it along with a notice of intent, to the San Francisco Bay RWQCB. The SWPPP is required to identify a practical sequence for BMP implementation and maintenance, site restoration, contingency measures, responsible parties, and agency contacts. The SWPPP would include but not be limited to the following elements:

- Temporary erosion control measures would be employed for disturbed areas.
- No disturbed surfaces would be left without erosion control measures in place during the winter and spring months. Cover disturbed areas with soil stabilizers, mulch, fiber rolls, or temporary vegetation.
- Sediment would be retained on site by a system of sediment basins, traps, or other appropriate measures. Drop inlets shall be lined with filter fabric/geotextile.
- The construction contractor would prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. This may include locating construction-related equipment and processes that contain or generate pollutants in a secure area, away from storm drains and gutters, and wetlands; parking, fueling, and cleaning all vehicles and equipment in the secure area; designating concrete washout areas; and preventing or containing potential leakage or spilling from sanitary facilities.

- BMP performance and effectiveness would be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the RWQCB to determine adequacy of the measure.
- In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover would be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.

The project would result in about 400 square feet of new impervious surfaces being created on the school campus. This would not have a substantive effect on the quantity or quality of runoff from the site. Implementation of the Construction General Permit requirements described above would reduce the other water quality impacts to a **less-than-significant** level.

- b) The City of Novato does not rely on groundwater for any part of its water supply². Water is provided by the North Marin Water District. Staff would be relocated from elsewhere in Novato as a result of the project, so there would be no net increase for water demand. The project would include low-flow fixtures and water-conserving landscaping, which would provide water supply efficiencies. No groundwater wells or other supplies would be required. Therefore, the proposed Project would not contribute to depletion of groundwater supplies and **no impact** would occur to groundwater or groundwater management plans.
- d) This site is located in a 100-year flood hazard zone³. The site is not in a mapped tsunami runup zone. As sea levels rise, the potential for flooding may increase, depending on the timing/adequacy of flood protection measures. However, the proposed project does not subject any new people to flood hazards, and the 400-sq. ft. warming kitchen addition to the existing Multi-Purpose Room would not affect flood hazards.

The project site is located approximately 4.6 miles southeast from Stafford Lake Dam. Stafford Lake Dam is under the Division of Dam Safety (DSOD) jurisdiction, which routinely monitors and evaluates the dam conditions. An inundation map of Novato Creek from a hypothetical failure of Stafford Dam shows the school would be subject to flooding in case of a failure of Stafford Dam⁴. However, Stafford Lake Dam is

² City of Novato Existing Conditions Report, 2016, pp. 12-5

³ National Flood Insurance Program, Flood Insurance Rate Map, Marin County and Incorporated Areas, Panels 279D and 283D, May 4, 2009

⁴ <https://cdn.ymaws.com/floodplain.org/resource/resmgr/2015Conference/Thursday/Preparing-for-the-Worst--Mi.pdf>

under the Division of Dam Safety (DSOD) jurisdiction which routinely monitors and evaluates the dam conditions. Therefore, the threat of dam failure inundation is low to moderate (Miller Pacific Engineering 2020). In addition, as discussed above, the project would not increase the exposure of students, staff, or structures to this hazard, nor would it increase the risk of water quality degradation from this flooding.

Seiches and tsunamis are seismically induced large waves of water. Because of the distance of the site from any large water body and the elevation of the site well above sea level, there is minimal potential for a tsunami to affect Novato.

Therefore, the proposed project would have ***no impact*** to future occupants of the project due to inundation by seiche, tsunami or mudflow, and a ***less-than-significant impact*** associated with exposure to flood hazards and associated water quality issues.

XI. Land Use and Planning

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

Discussion

- a) The proposed building would be located within an urbanized area on an existing school campus. Because the project would involve improvements within the school campus consistent with the school use, and would not change the school capacity, it would not create conflicts between uses or divide an established community, there would be ***no impact***.
- b) The project site is designated as Community Facilities (CF) on the City of Novato General Plan Land Use Map (City of Novato 1996) and on the City of Novato Zoning Map (City of Novato 2001). The proposed modernization of the existing school facility is consistent with the General Plan and Zoning designations. The Project would have ***no impact*** on plan conformance.
- c) The Project site is not located within the boundaries of a habitat conservation plan or a natural community conservation plan; therefore, the Project would not conflict with any habitat plans and there would be ***no impact***.

XII. Mineral Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?				X
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?				X

Discussion

- a, b) The Project site is designated Community Facilities (CF) in the City of Novato General Plan and consists of an urban parcel developed with school facilities. The site is not identified in the City's General Plan as a site containing mineral resources that would be of local, regional, or statewide importance; therefore, the Project is not considered to have any impacts on mineral resources (Novato General Plan Land Use Map, 1996). The Project site is also outside of any areas designated by the State Mining and Geology Board as containing regionally significant PCC-grade aggregate resources (used in concrete) (City of Novato General Plan 2035, Figure EL-7, 2016). The Project site does not contain any known mineral deposits or active mineral extraction operations. Therefore, there would be ***no impact*** to mineral resources

XIII. Noise

Would the project result in:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
c) For a project within the vicinity of a private airstrip, or 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?				X

Background

Sound is created when vibrating objects produce pressure variations that move rapidly outward into the surrounding air. The more powerful the pressure variations, the louder the sound perceived by a listener. The **decibel (dB)** is the standard measure of loudness relative to the human threshold of perception. Noise is a sound or series of sounds that are intrusive, objectionable or disruptive to daily life. Many factors influence how a sound is perceived and whether it is considered disturbing to a listener; these include the physical characteristics of sound (e.g., loudness, pitch, duration, etc.) and other factors relating to the situation of the listener (e.g., the time of day when it occurs, the acuity of a listener's hearing, the activity of the listener during exposure, etc.). Environmental noise has many documented undesirable effects on human health and welfare, either psychological (e.g., annoyance and speech interference) or physiological (e.g., hearing impairment and sleep disturbance).

Just as vibrating objects radiate sound through the air, if they are in contact with the ground, they also radiate mechanical energy through the ground. If such an object is massive enough and/or close enough to an observer, the ground vibrations can be perceptible and, if the vibrations are strong enough, they can cause annoyance to the

observer and, if still stronger, damage to the buildings exposed. Annoyance and structural damage correlate strongly with the velocity produced by the vibration source at receptor locations. The vibration metric most commonly used to correlate vibration levels with human annoyance and structural damage is the vibration decibel (VdB).

The Project site is located in south Novato in northeast Marin County. The Project site and vicinity were surveyed (July 29, 2020) to observe influential local noise sources and receptors. Noise-sensitive single-family residential uses surround the site on three sides, with commercial uses abutting the site's northwest boundary. Motor vehicle traffic using Novato Boulevard, which runs along the site's southwest boundary, has the most influential effect on site background levels.

The *Novato General Plan* includes objectives, policies and programs relating to noise in its *Safety and Noise* chapter. Noise-related objectives call for the City to ensure compatible development throughout the city, prevent noise increases and reduce noise levels where feasible and practical. Policies and programs to support these objectives focus on enforcing noise and land use compatibility standards, mitigating potential noise impacts from new development and roadway projects, restricting truck traffic to designated routes and enforcing the California Vehicle Code that limits noise emissions of vehicles operated on public streets.

The *Novato General Plan 2035* (Chapter 4, *Living Well*, Section 5 *Noise*) presents 24-hour average noise contours (using the L_{dn} metric⁵) for Highway 101 and Novato's major streets (see Figure LW-3, *Existing Vehicular Noise Contours*). At the Project site's location about 1500 feet west of Highway 101 and about 400 feet southeast of Rowland Boulevard, noise levels on site are shown to be between 60 dB and 55 dB L_{dn} . Thus, noise levels at the existing school site and in the adjacent residential areas are in the "Normally Acceptable" range of noise exposure standards set by the General Plan.

The *Novato General Plan 2035* adopts *Land Use Compatibility Standards* also based on the L_{dn} metric. Such standards for the Project land use type and the noise-sensitive land uses in the Project site vicinity are given below:

- For Residential:
 - Normally Acceptable – $L_{dn} < 65$ dB
 - Conditionally Acceptable – $L_{dn} > 65$ dB, but < 80 dB
 - Unacceptable – $L_{dn} > 80$ dB
- For Office, Commercial and Professional:
 - Normally Acceptable – $L_{dn} < 75$ dB
 - Conditionally Acceptable – $L_{dn} > 75$ dB, but < 85 dB

⁵ L_{dn} , is a 24-hour average sound level with a 10 dB "penalty" added to sound levels occurring at night between 10:00 p.m. and 7:00 a.m.

Unacceptable – $L_{dn} > 85$ dB

- For Schools and Libraries:
 Normally Acceptable – $L_{dn} < 65$ dB
 Conditionally Acceptable – $L_{dn} > 65$ dB, but < 80 dB
 Unacceptable – $L_{dn} > 80$ dB

Construction noise is addressed in Chapter 19 (Zoning – General Performance Standards) of the *Novato Municipal Code*. Section 19-22.070 (Noise and Construction Hours) states:

“The following are exempt from the allowable noise level requirements ... Authorized construction activities, including warming-up or servicing of equipment, and any preparation for construction between 7 a.m. and 6 p.m. on weekdays, and between 10 a.m. and 5 p.m. on Saturdays. No construction is allowed on Sundays or official federal national holidays, except as otherwise authorized herein by the Community Development Director.”

Discussion

- a) Potentially disturbing noise increments associated with development can occur temporarily during project construction and/or permanently after construction if the project would introduce new, substantial noise sources to the site or in its vicinity.

Incremental Noise from Construction

The Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) was used to estimate the noise levels at various distances from the locus of construction work produced by a typical working group of Project construction equipment (i.e., a dump truck, a backhoe and a loader) likely to be used for the Project, as shown in **Table NOISE-1**.

Table NOISE-1: Modeled Project Construction Noise Levels

Distance from Area of Construction Activity (feet)	Average Construction Daytime Noise Level L_{eq} (dB)	Maximum Construction Daytime Noise Level L_{max} (dB)
25	84	87
50	78	81
100	72	75
200	66	69

Source: Federal Highway Administration, Roadway Construction Noise Model (RCNM).

Since the closest residential receptors are adjacent to the site's northeast and southeast boundaries, noise levels at these receptors during construction could at times exceed what is now the existing average/ ambient background levels. Thus, to protect existing adjacent residents from substantial Project construction noise intrusions, the following measures shall be implemented to assure that Project incremental temporary construction noise impacts remain ***less than significant***.

Incremental Noise from Project Operation

After Project construction is complete, no substantial noise level increase will occur from Project operational sources, in this case exclusively motor vehicle traffic. The Lynwood Elementary School enrollment will not increase as a result of Project improvements and its motor vehicle traffic will remain at existing levels.

- b) There are no policies or standards in the *Novato General Plan 2035* for avoiding/reducing structural damage or annoyance from vibration impacts. However, it is most common for government agencies to rely on assessment methodologies, impact standards and vibration-reduction strategies developed by the Federal Transit Administration (FTA). According to the FTA, limiting vibration levels to 94 VdB or less would avoid structural damage to wood and masonry buildings (which are typical of most residential structures), while limiting vibration levels to 80 VdB or less at residential locations would avoid significant annoyance to the occupants.

The most vibration-intensive piece of construction equipment is a pile driver, but no pile driving will be required for the Project. Other types of construction equipment are far less vibration-intensive. Next in intensity are heavily loaded trucks or large tracked earth-moving equipment, which could pose a damage or annoyance threat if they regularly and often come within 25 feet of a vibration-sensitive receptor during construction. Some project construction will include grading involving a grader and/or a bulldozer, but only for about one work week, and they would not operate within 25 feet of existing residential structures. Thus, the potential for vibration annoyance or structural damage is less than significant.

- c) The Project site is about 2 miles south of Gness Field, a private aviation facility operated by the Marin County Department of Public Works. The *Novato General Plan 2035* (Chapter 4, *Living Well*, Section 5 *Noise*) presents noise contours for Gness Field (see Figure LW-5, *Existing Noise Contours for Gness Field Airport*). The Airport's 65 dB contour (the common federal measure of significant impact from aircraft noise) closely follows (and is just outside) the Airport property and also comes no closer than about 2 miles from the Project site. Thus, the potential

for annoyance to school children/faculty/staff and surrounding residents from aircraft operations out of Gness Field Airport is less than significant.

Mitigation Measures

Mitigation Measure NOI-1. The following Best Management Practices shall be incorporated into the construction documents to be implemented by the Project contractor:

- Limit Project construction to the summer months when school is not in session.
- Limit Project construction activity to between 7 a.m. and 6 p.m. on weekdays, to between 10 a.m. and 5 p.m. on Saturdays, and prohibit it on Sundays or official federal national holidays (to comply with the *Novato Municipal Code*).
- Provide enclosures and noise mufflers for stationary equipment, shrouding or shielding for impact tools, and barriers around particularly noisy activity areas on the site.
- Use quietest type of construction equipment whenever possible, particularly air compressors.
- Provide sound-control devices on equipment no less effective than those provided by the manufacturer.
- Locate stationary equipment, material stockpiles, and vehicle staging areas as far as practicable from sensitive receptors.
- Prohibit unnecessary idling of internal combustion engines.
- Require applicable construction-related vehicles and equipment to use designated truck routes when entering/leaving the site.
- Designate a noise disturbance coordinator at NUSD who shall be responsible for responding to complaints about noise during construction. The telephone number of the noise disturbance coordinator shall be conspicuously posted at the construction site. Copies of the project purpose, description and construction schedule shall also be distributed to the surrounding residences, schools and library.

XIV. Population and Housing

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial 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)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X

Discussion

- a) The proposed school modernization would not directly increase population growth because there is no housing component, and would not indirectly increase housing (through increased demand) because the project would not generate any new housing demand. No new permanent jobs would be generated by the project. The site and surrounding areas are developed with urban land uses and no extensions of roads or other infrastructure would be required that would indirectly induce growth. Therefore, the project would not induce new development on nearby lands, and **no impact** would occur.
- b) The project site is an existing elementary school. The proposed project would not displace existing housing or people, so there would be **no impact**.

XV. Public Services

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 following public services:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Fire protection?				X
b) Police protection?				X
c) Schools?				X
d) Parks?				X
e) Other public facilities?				X

Discussion

- a) The City of Novato Fire Protection District (NFPD) provides fire protection and emergency medical services for the project site. Fire protection to the project site is provided by the Novato Fire Protection District (NFPD). The NFPD operates five fire stations in Novato. Station 61 (Redwood) located at 7025 Redwood Road, (approximately 0.75 miles north of the school) is the nearest station to the project site. It is home to six firefighting personnel, and Battalion Chief responsible for Training and Education. It is the largest station in the District, housing the most varied complement of firefighting/life safety vehicles and equipment. Centrally located, it is also the busiest station in the District.

Implementation of the project would include new fire alarm systems which would improve the school's fire protection capabilities. In addition, the school is located on a site in a highly developed area, in close proximity to existing fire protection services. The project would not require the provision of or need for new or physically altered facilities to continue to serve the project site. As a result, the project would not result in a substantial adverse physical impact nor would it substantially affect response times for fire services. The project would have **no impact** to fire protection services.

- b) The City of Novato Police Department (NPD) provides police protection services for the Project site. The NPD station is located at 909 Machin Avenue, approximately 1.2 miles north of the project site. The NPD currently provides police protection to the project area and would continue to provide service when the new building is constructed. The project plans would be reviewed by the NPD for safety provisions. Full emergency access to the site would be provided. Because there would be no increased demand for police protection services, the project would have **no impact**.

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- c) The proposed facilities would not increase the population or otherwise increase demands for school services. It would modernize an existing school. Therefore, it would have ***no impact*** on schools.
- d) The proposed project would not result in an increase in residents and therefore, would not increase demand for any parks facilities. For this reason, the project would have ***no impact*** to recreational facilities
- e) No other public facilities would be required by the proposed project. Therefore, there would be ***no impact*** to other facilities.

XVI. Recreation

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Discussion

- a, b) The proposed school modernization project would not result in demand for any parks facilities and does not include any such facilities. The project would not displace recreational facilities nor would construction of the project increase use of existing public recreation facilities. Therefore it would have ***no impact*** to recreational facilities.

XVII. Transportation/Traffic

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit roadways, pedestrian and bicycle facilities?				X
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?				X
c) Substantially increase hazards due to design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d) Result in inadequate emergency access?				X

Background

PHA Transportation Consultants prepared a transportation analysis for the project. (PHA 2020). That report is included as Appendix A to this Initial Study. The analysis addressed to identify whether or not the proposed drop-off plaza, drop-off lane, and the reconfigured staff parking lot will create negative impacts in terms of access, parking, internal circulation, and traffic safety on and off the school site.

Discussion

- a) The PHA analysis indicated that the proposed modernization project would not result additional traffic, as the majority of work focuses on upgrading existing facilities and the number of students and teachers would remain unchanged.

The proposed drop-off lane and plaza would divert school traffic to enter the school via the Leafwood entrance driveway, reduce the traffic load at the Lynwood Drive entrance. These access modifications also would eliminate the potential of drop-off traffic queues extending to Sunset Parkway resulting from the short spacing.

The current parking lot has 43 parking spaces. The parking lot near Leafwood Drive would be designated (by signage) for school use from 7am to 5pm, weekdays, and would not be available for neighborhood parking during those hours. Therefore the school would gain 14 more parking spaces (for a total of 55

spaces), which would be adequate to accommodate staff parking needs. This restriction also would eliminate potential traffic conflicts between school and resident traffic associated with that lot. However, the current parking lot users would have to seek parking elsewhere.

A parking study conducted in mid-August indicating parking on Leafwood Drive is essentially at capacity due to the large number of multiple family apartment buildings along the street. However, the parking survey also indicated that there are still some available parking spaces on Leafwood Drive north of the creek. The parking lanes on Rowland Boulevard could also be used to accommodate the displaced resident parkers.

These changes would have no potential to adversely affect compliance with policies or plans affecting vehicular traffic or pedestrian or bicycle transportation. **No impact** would occur.

- b) The proposed project would not change the number of students attending the school or the modes of transport taken to the school. Therefore it would have no effect on VMT, and would be consistent with CEQA Guidelines Section 15064.3, subdivision (b). **No impact** would occur.
- c, d) The proposed new drop-off lane from the Leafwood entrance to the end of the new drop-off plaza measures about 560 feet long, while the drop off plaza would be able to accommodate more than 6 cars. This would satisfy the recommended drop-off lane requirement and also significantly improve over the existing drop-off design. With the new access for drop-off traffic entering from Leafwood Drive, the traffic level-of service (operations) at both access points at Sunset Pkwy and Leafwood Drive would operate at LOS A with short delays and vehicle queues.

The current layout of the area in front of the school at the roundabout area must accommodate both student drop-off and school bus stop and could be chaotic during the drop-off and pick up times and could have the potential to backup traffic to Sunset Parkway during drop-off and pick up times. Lynwood Drive is the main vehicle access for the school, providing both ingress and egress traffic. The proposed access would separate the ingress and egress traffic; vehicle traffic would enter the school via the driveway at Leafwood Drive and exit via Lynwood Drive. This would create a more orderly internal circulation while minimizing the traffic load at Lynwood Drive.

Overall, the proposed access and drop-off plaza layout would improve school traffic circulation and safety, including emergency access, and **no adverse impacts** would occur.

XVIII. Tribal Cultural Resources

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) 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:				X
i) 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				X
ii) 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				X

Discussion

a) I, ii. As described above under Cultural Resources, above, the project would involve interior and minor exterior improvements (a 400-sq. ft. addition to an existing building replacement of concrete pathways, and reconfiguration of the school's existing access drive) to an existing school. There would be no excavations into native soils. Consequently, the project would have ***no potential to impact*** any Tribal Cultural Resources.

XIX. Utilities and Service Systems

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?				X
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
c) Result in a determination by the waste water 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?				X
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?				X
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

Background

The Novato Sanitary District (NSD) provides wastewater collection, treatment, and disposal services for the entire Novato community. The wastewater treatment plant is the Novato Treatment Plant, which is currently designed for an average dry weather flow of 7.05 million gallons per day (mgd) (NSD, 2008, revised 2012).

North Marin Water District (NMWD) supplies water to the City of Novato. In 2011, NSD and NMWD expanded a joint recycled water program and construction of new facilities was initiated at the Novato Treatment Plant to provide additional recycled water production capability.

Discussion

- a, b, c) The project would not affect the quantity or quality of wastewater that would be treated by NSD facilities because it would not involve any addition of students or staff to the school. As a result, the project would have ***no impact*** related to wastewater treatment facilities.

Similarly, the project would not affect water use at the school, resulting in no or minimal net increase in NMWD water demand. ***No impact*** would result.

The project area is developed with the existing school, and no substantial expansions or extensions of utility services would be required. ***No impact*** would result.

- d, e) Recology is Novato Sanitary District's new solid waste franchisee. It provides recycling, organics (green waste), and garbage collection services to the City of Novato. According to the General Plan, Novato's solid wastes are sent to the Redwood Landfill in Novato. Because the Project building not increase capacity of levels of operations at the school, there would be no net increase in solid waste generation as a result of the project, and there would be ***no impact*** on solid waste.

XX. Wildfire Hazards

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
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?				X
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?				X
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?				X

Discussion

a, b, c, d) The project site and surrounding area is fully developed with urban uses and the nearest wildfire-hazard areas are several miles west of the site. The project would be limited to modernization of an existing school, including improved fire alarm systems. Therefore, it would have **no impact** with respect to wildfire hazards.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

Environmental Issue	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact
a) Does the project have the potential to 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 an endangered, rare or threatened species or eliminate important examples of the major periods of California history or prehistory?				X
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)?				X
c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?			X	

Discussion

- a) The proposed project would have no effect on special-status habitat or seasonal wetlands, as discussed above in Section IV. Biological Resources. In addition, it would not have the potential to affect any known or unknown historic resources or prehistoric resources, as discussed above in Section V. Cultural Resources. **No impact** would occur.

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- b) A review of the City of Novato's Planning Projects map⁶ and list indicates no planned projects in the vicinity of the school. In addition, the proposed project's impacts would be minimal. Therefore the project would not contribute to any cumulatively considerable environmental impacts.

- c) The proposed project would generate an increase in air pollutant emissions and greenhouse gasses associated with project construction and operation. These emissions would not be considered great enough to directly or indirectly have an adverse effect on residents living in the area. No other hazards have been identified from the project. Therefore this impact would be ***less than significant***.

⁶ <https://www.novato.org/government/community-development/planning-division/planning-projects/-selcat-179> (accessed July 29, 2020)

4.REPORT PREPARERS

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Appendix A

Traffic Memoranda

**Lynwood Elementary School Modernization
Traffic Study
Novato
October 2020**



PHA Transportation Consultants

2711 Stuart Street Berkeley CA 94705

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Executive Summary

Lynwood Elementary School is proposing a modernization project to improve school buildings, classrooms, and a variety of facilities on campus. The modernization project will also create a new drop-off plaza, new drop-off lane, and reconfigure the existing staff parking lot. This report was prepared to identify whether or not the proposed drop-off plaza, drop-off lane, and the reconfigured staff parking lot will create negative impacts in terms of access, parking, internal circulation, and traffic safety on and off the school site.

Results of the analysis indicated the proposed modernization project will not result additional traffic as the majority of work focused on upgrading existing facilities and will not add to the current school capacity. The number of students and teachers will remain unchanged.

The proposed drop-off lane and plaza will in effect divert school traffic to enter the school via the Leafwood entrance driveway, reduce the traffic load at the Lynwood Drive entrance, and also eliminate the potential of drop-off traffic queues extending to Sunset Parkway due to the short spacing.

The new drop-off lane from the Leafwood entrance to the end of the new drop-off plaza measures about 560 feet long and would be able to accommodate more than 6 cars. This will satisfy the recommended drop-off lane requirement and also significantly improve over the existing drop-off design.

With the new access for drop-off traffic entering from Leafwood Drive, the traffic level-of service (operations) at both access points at Sunset Pkwy and Leafwood Drive would operate at LOS A with short delays and vehicle queues.

The current parking lot has 43 parking spaces. The reconfigured parking lot will provide 55 spaces and be adequate to accommodate staff parking needs.

With the new site plan, the parking lot near Leafwood Drive currently used by residents should be restricted during the school hours, preferably between 7 am and 5 pm to prevent conflicts between school traffic and resident traffic.

A parking study conducted in mid-August indicating parking on Leafwood Drive is essentially at capacity due to the large number of multiple family apartment buildings along the street. However, the parking survey also indicated that there are still some available parking spaces on Leafwood Drive north of the creek. The parking lanes on Rowland Boulevard could also be used to accommodate the displaced resident parkers.

1. Introduction

1.1 Study Purpose

PHA Transportation Consultants has conducted this traffic study for Novato Unified School District to evaluate the potential traffic impact associated with the proposed modernization project at Lynwood Elementary School at Lynwood Drive. The school currently has an enrollment of 279 students and 30 staff. Access to and from the school is provided via S. Novato Boulevard, Sunset Pkwy, Rowland Boulevard and Leafwood Drive. According to the project proponent, the modernization project will upgrading existing facilities such as classrooms, and various other school buildings, play facilities, school kitchen etc. and would not change school capacity nor increase the number of students and teachers. The plan, however, proposes to revise the current access to and from the school campus, reconfigure the drop-off area and staff parking lot. The purpose of this report is to evaluate the potential impact of the new access plan, drop-off traffic operation, staff parking lot design and adequacy, and traffic safety.

1.2 Proposed Improvements

According the project proponent, the proposed improvements include the following:

- Modernize classrooms
- Minor upgrades to restrooms
- Replace concrete paving for accessibility
- Remove existing kitchen and replace with new warming kitchen
- Replace and relocate PG&E electrical service equipment
- Reconfigure new drop-off traffic flow at Leafwood Drive
- Reconfigure and re-stripe parking
- New drop-off plaza with landscape design
- New pedestrian sidewalk from Leafwood Drive to drop-off plaza
- Modernize multipurpose building
- Modernize administration building
- Fire alarm system upgrade

1.3 Existing Conditions and Site Access

Lynwood Elementary School had been closed along with other Novato schools since mid-March due to COVID 19. Current site layout indicated that vehicle traffic would access the school via Sunset Pkwy and Lynwood Drive. Parents would drive around the roundabout circle to drop-off their students and then exit to Lynwood Drive and Sunset Pkwy; teachers and staff would drive pass the circle on the south side to continue to the parking area. The staff parking area has 43 parking spaces and is gated on both east and west side. Pedestrian paths are provided between the school and S. Novato Boulevard to the west and Leafwood Drive to the east. Student pedestrians can access the school via these paths during school hours. The school also has a staff parking lot between the east access gate and Leafwood Drive but is currently used by the Leafwood neighborhood. Figure 1 shows the school site and its vicinity.



Figure 1 Lynwood Elementary School and Vicinity
Lynwood Elementary School Modernization Traffic Study – Novato

School hours generally begin around 8 am and end at about 3 pm. However, the arrival and dismissal times varies for different grade levels. Table 1 below summarizes the class sizes and bell schedules for various grades. Table 2 shows the estimated school trip (vehicle trips) generation.

Table 1 School Class Size and Bell Schedules Lynwood Elementary School Improvement Traffic Study – Novato			
Grades	Students	Class Start	Class End
Kindergartner (Early Birds/Late Birds)	64	8:20/9:00	1:20/2:00
Grade 1	45	8:20	2:45
Grade 2	43	8:40	3:05
Grade 3	43	8:40	3:05
Grade 4	49	8:40	3:10
Grade 5	35	8:40	3:10
Total	279		
After School Program (assumed 25% students)	(70)	3:00	6:00
Staff	30		
Student and staff data are obtained from school principal and school website			

Table 2 "Project" Trip Generation Analysis
 Lynwood Elementary School Modernization Traffic Study

Lynwood Elementary School	Student	AM Peak- Hour Trips			PM Peak-Hour Trips			Average Daily Trips		
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
Elementary School (ITE code 520)	280	69	57	126	38	46	84	181	181	362

ITE Trip Generation Manual (9th Edition)
 Rates for elementary school (ITE 520):
 Weekday daily rate 1.29/Student, 50% in, 50% out, am peak hour rate 0.45/student, 0.55% in, 45% out, school pm peak hour rate, 0.30/student, 45% in, 55% out
 School pm peak rates are not based on adjacent street rates, but are based on 75% of am trips as 25% students are currently enrolled in after school programs.

2. Proposed Access

As discussed previously, all vehicle traffic associated with the school is accommodated via Lynwood Drive currently. Under the new access plan, the main vehicle access would be via Leafwood Drive, in conjunction with Sunset Parkway and Rowland Boulevard. The plan includes school use of the portion of the parking lot at Leafwood Drive currently being used by the Leafwood neighborhood. Vehicle traffic, both parents and staff, would enter the school from Leafwood Drive entrance. Parents will drop-off or pick up students at the plaza area, and then proceed to exit via Lynwood Drive exit. School buses will access the school site via Lynwood Drive and drop off students by the roundabout and then exit to Sunset Parkway via Lynwood Drive as before. Figure 2 (site plan) shows the proposed site access, parking area configuration, and student drop-off plaza.

To identify the potential impact of the new access plan, traffic operations in terms of vehicle delays, Level-of-Service, and vehicle queues, at two locations, Lynwood Drive/Sunset Pkwy, and Leafwood Drive/school entrance driveway, were evaluated and compared between current and project conditions. Results indicated that both locations will operate at acceptable (mostly LOS A) conditions with minimal delays under 10 seconds. Table 3 shows the traffic operation analysis results for the two key ingress and egress points under current and project conditions.

While traffic operation analyses show good LOS at both locations and did not show a significant change between the current and new access, in reality, traffic operation at the roundabout at the end of Lynwood Drive in front of the school will improve. Student drop-offs near the roundabout will be eliminated with the new access plan and as such will minimize potential vehicle backups near the roundabout that could potentially extend to Lynwood Drive and Sunset Parkway. The proposed access plan will separate inbound and outbound traffic and will as a result making internal traffic circulation more orderly and improve the overall traffic safety in and around school. With the proposed access plan, the school will restrict resident use of the parking lot by Leafwood Drive during school-hours between 7 am and 5 pm, Monday-Fridays. This means residents will need to find parking elsewhere during the day but can still park at the lot in the evening.

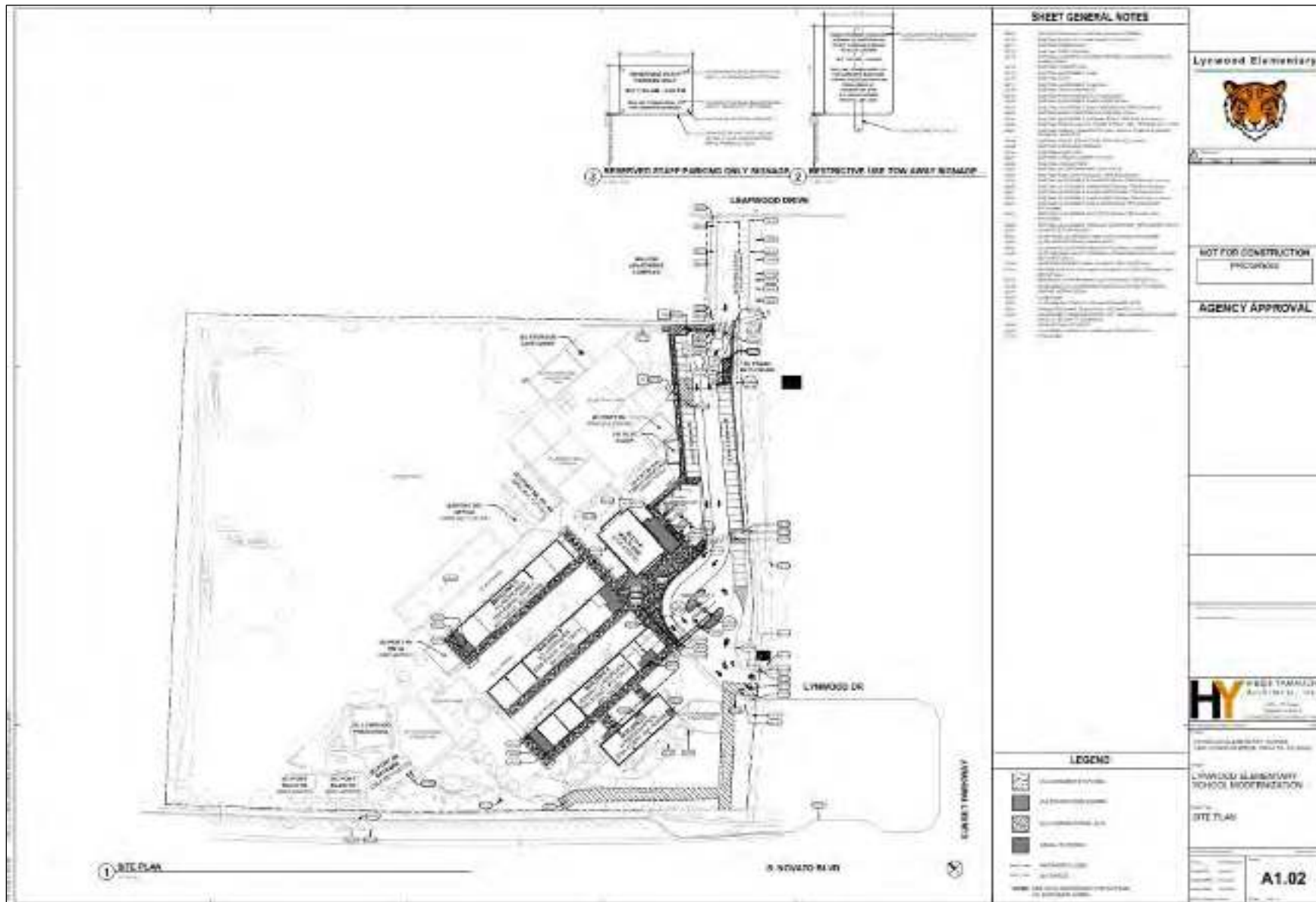


Figure 2 Project Site Plan - HY Architects
 Lynwood Elementary School Modernization Traffic Study-Novato

Table 3 Traffic Operations Analysis
 Lynwood Elementary School Modernization Traffic Study

Study Scenarios		Peak Hour	Lynwood Dr./Sunset Bl. Stop control @ Lynwood Dr.			Leafwood Dr./School Entrance No Traffic Control		
			Delays	LOS	Vehicle Queue	Delays	LOS	Vehicle Queue
1	Pre-Project Conditions	AM	4.3/1.2/10.3/9.3	A/A/B/A	1/1/1/1	9.1/9.1/1.2/0.8	A/A/A/A	1/1/0/0
		PM	2.7/1.3/9.9/9.1	A/A/A/A	1/1/1/1	9.0/9.0/2.0/0.9	A/A/A/A	1/1/0/0
2	Project Conditions	AM	1.5/1.3/9.8/9.2	A/A/A/A	1/1/1/1	0.0/9.6/4.6/0.5	A/A/A/A	0/1/2/0
		PM	1.2/1.3/9.9/9.1	A/A/A/A	1/1/1/1	0.0/9.2/4.9/0.7	A/A/A/A	1/1/1/1

Notes:

Pre-Project Conditions: Assumes all school vehicle traffic, per ITE trip estimates, enters and exits school via Lynwood Drive.

Project Conditions: Assumes all school vehicle traffic, per ITE trip estimates, enters via the proposed Leafwood access and exits via Lynwood Drive.

Traffic volumes for the pre-project condition were based on counts collected in mid-August 2020, adjusted upward by 20% to reflect COVID 19 and summer traffic conditions.

Delay: Measured by seconds per vehicle by approach (E/W/N/S)

LOS: Level-of-Service, reported by approach (E/W/N/S)

LOS ranking criteria for unsignalized intersections:

LOS A, 0-10 seconds,

LOS B, 10.1-15

LOS C, 15.1-25

LOS D, 25.1-35

LOS E, 35.1-50

LOS F, >50

Queue: Number of vehicle in queue by approach (E/W/N/S)

Traffic counts were conducted in mid-August 2020. Base traffic volumes were adjusted upward by 20% to reflect the lowered travel pattern due to COVID 19.

3. Drop-off Traffic

The current student drop-off and pickup occurs near the roundabout at the end of Lynwood Drive. Since the school was closed due to COVID 19, site observation to identify current drop-off and pick up operations was not possible. However, based on the short spacing between the roundabout and Sunset Pkwy, traffic could be chaotic during drop-off and pick up times.

With the proposed site plan (see Figure 2), the drop-off lane and queuing lane measures about 560 feet long from the entrance to the end of the drop-off plaza, and would be able to accommodate more than 20 cars assuming a 25 feet length per car. The drop-off plaza measures about 150 feet long and would accommodate more than six to seven cars at the same time. The queuing/drop-off lane measures 10 feet wide and will satisfy the recommended minimum width for a drop-off lane. Additionally, the new plan will provide a 20-foot wide passing lane alongside the drop-off lane. This is far superior to the current drop-off conditions. The project site plan (see Figure 2) shows the drop-off lane, drop-off plaza, reconfigured staff parking, and the reconfigured roundabout in front of the school building at the end of Lynwood Drive.

Research and surveys performed at five middle and elementary schools by Hatch Mott Macdonald, a North America Engineering Design Firm, indicated that about 1.6 to 2.0 feet of queuing space should be provided for each enrolled student in designing the drop-off lane; research conducted by North Carolina Department of Transportation indicated 1.65 feet per student; and research conducted by The Texas Transportation Institute indicated 1.5 feet per student.

With 280 enrolled students, the recommended drop-off lane should be about 420 feet long calculated based on 1.5 feet length per student, or 560 feet based on 2.0 feet per student. The drop-off lane design is adequate. In any event, the new drop-off lane design is an improvement compared to the current drop-off lane. Table 4 shows the recommended drop-off lane length for the school.

Table 4 Drop-off/Pick- up Lane Evaluation			
Lynwood Elementary School Modernization Traffic Study – Novato			
# Students	Recommended Drop-off Lane Length		Drop-off Lane length Provided
	@1.5'/Student	@2.0'/Student	
280 students	420'	560'	567'
Based on North Carolina Transportation Department and the Texas Transportation Institute estimate			

4. Parking Analysis

The school currently has 43 parking spaces. The proposed modernization project will reconfigure the current staff parking area and will provide a total of 55 parking spaces, not counting the parking lot next to Leafwood Drive currently used by local residents. This will be adequate for school staff. The parking lot at Leafwood Drive has 14 spaces.

According to plans, the school will restrict resident use of the Leafwood Parking lot during school day between 7 am and 5 pm due to minimize conflicts between school traffic and resident traffic and other safety and security concerns. Current parking lot users will have to seek parking elsewhere during the day but can still park at the lot after 5 pm.

A parking survey was conducted to assess whether there are adequate spaces to accommodate the displaced parking lot users. The parking surveys were conducted on August 13, Thursday beginning from 7 a.m. to 6 p.m. Parked cars were counted hourly between 7-9 a.m. and then every two-hour in the afternoon between 2- 6 pm. The survey hours are designed to capture peak parking demands before residents go to work in the morning and returning home in the afternoon.

Survey results indicated that the entire area has the capacity to accommodate total of 339 parked cars. The level of saturation for the entire area as a whole is 65% full at 7 am in the morning and about 70% by 6 pm in the afternoon. Since parking spaces in the area are not striped, the number of parking spaces available in the area was determined by measuring the lengths of survey blocks, minus driveways and painted curbs, divided by a factor of 20 feet, which is the length for standard parking space. The level of parking saturation is calculated based on the number of parked cars counted.

Figure 3 shows the parking survey area and Table 5 shows a description of each of survey block and estimated capacities. Table 6 and 7 shows the parking survey results for the entire study area as a whole and a focused area Block A, B, and F.

As indicated, the level of saturation for the entire area as a whole is between 65% and 70% full. However, survey blocks B and F, representing Leafwood Drive between the Sunset Parkway and the creek and the parking lot next to Lynwood School is essentially at capacity.

Survey results also show that there are a small number of available spaces on Leafwood Drive (block A) north the creek on Leafwood Drive. Field observation also indicated that there are parking lanes at Rowland Boulevard just west of Leafwood Drive. Displaced parkers from the parking lot (block F) could seek parking there.

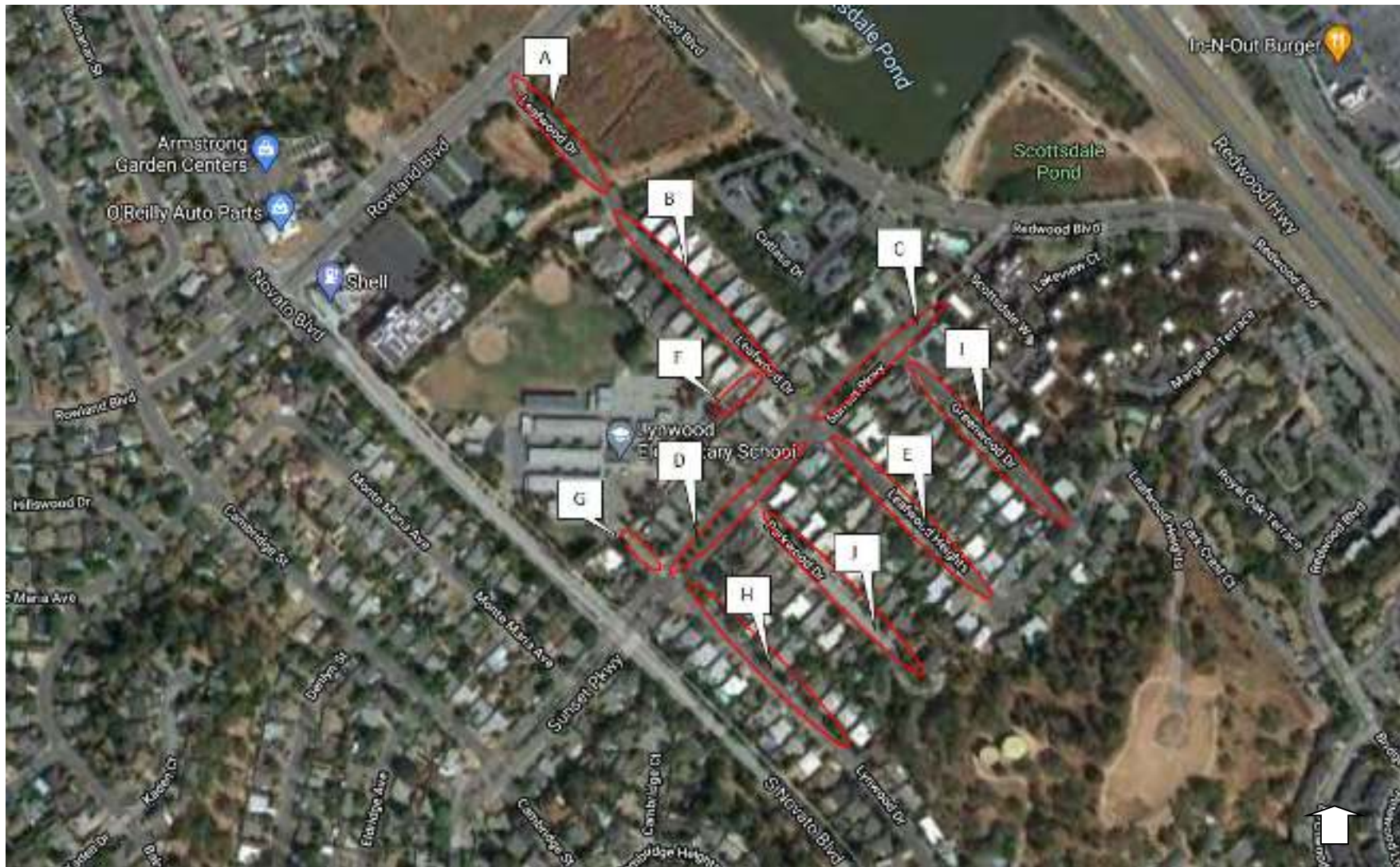


Figure 3 Parking Study Areas
Lynwood Elementary School Improvement Traffic Study – Novato

Table 5 Parking Survey Area Description and Parking Spaces Estimates
 Lynwood Elementary School Modernization Access and Parking Study

Survey Block	Parking Survey Block Descriptions	Block Length (X)	Driveways/Painted Curbs (Y)	Estimated Parking Capacity (X-Y)/20' (Stall Length)
A	Leafwood Dr. between Rowland Bl. and the creek	760'	25	36
B	Leafwood Dr. between the Creek and Sunset Pkwy.	1500'	410	54
C	Sunset Pkwy. between Leafwood Dr. and east terminus	660'	170	24
D	Sunset Pkwy. between Leafwood Dr. Lynwood Dr.	950'	175	38
E	Leafwood Heights between Sunset Pkwy and the Cul-de-Sac	1300'	510	39
F	Parking lot between Lynwood School Gate and Leafwood Dr.	14 spaces	N.A.	14
G	Lynwood Dr. between Lynwood School and Sunset Pkwy.	240'	55	9
H	Lynwood Dr. between Sunset Pkwy and speed limit sign in south	1580'	510	53
I	Greenwood Dr. between Sunset Pkwy and Leafwood Heights	1240'	390	42
J	Parkwood Dr. between Sunset Pkwy and the edge of slope	980'	370	30
Total				339
A	Leafwood Dr. between Rowland Bl. and the creek	760'	25	36
B	Leafwood Dr. between the Creek and Sunset Pkwy.	1500'	410	54
F	Parking lot between Lynwood School Gate and Leafwood Dr.	14 spaces	N.A.	14
Total				104

Note:
 Study Block lengths are measured from Google Maps between curb returns. Driveway and painted curbs are measured in the field on 8/13/2020. Block lengths, driveways, and painted curbs represent both sides of the street. Block F is a parking lot with 14 striped parking spaces. Field observation indicated between 18 and 20 vehicles were parked at the lot with cars double parked and parked along the fire lane.

Table 6 Parking Survey Area Description and Parking Spaces Estimates
 Lynwood Elementary School Modernization Traffic Study

Survey Block	Capacity (Space)	7am		8am		9am		2pm		4pm		6pm	
		Occupied	Free	Occupied	Free	Occupied	Free	Occupied	Free	Occupied	Free	Occupied	Free
A	36	25	11	17	19	17	19	24	12	16	20	27	9
B	54	52	2	55	-1	56	-2	55	-1	58	-4	56	-2
C	24	20	4	15	9	12	12	13	11	14	10	23	1
D	38	18	20	19	19	17	21	17	21	21	17	28	10
E	39	26	13	18	21	22	17	13	26	18	21	26	13
F	14	19	-5	18	-4	18	-4	17	-3	19	-5	21	-7
G	9	5	4	3	6	4	5	2	7	2	7	4	5
H	53	13	40	12	41	9	44	12	41	14	39	14	39
I	42	23	19	20	22	21	20	19	23	19	23	22	20
J	30	18	12	17	13	19	18	15	15	16	14	17	13
Total	339	219	120	194	145	195	150	187	152	197	142	238	101
		65%	35%	57%	43%	58%	44%	55%	5%	58%	42%	70%	46%

Survey Zone: See Figure X for zone boundary and Table 2 for block description. Surveys were conducted on 8/13/2020

Total Space (Capacity Estimates): Is estimated based on measuring the curb length of each survey block on both side of the street, subtracting the curb returns, driveways paint curbs, and spaces between driveways that are too short to accommodate a car; then divided by 20 feet (standard parking space length). It's possible that there were more parked cars counted than the available capacity as many cars are actually less than 20 feet long and parked closely together as evident with the conditions at Leafwood Drive.

Occupied: Space has a parked car

Free: Space is available

Table 7 Parking Survey Area Description and Parking Spaces Estimates (Block A,B,F)
 Lynwood Elementary School Modernization Access and Parking Study

Survey Block	Capacity (Space)	7am		8am		9am		2pm		4pm		6pm	
		Occupied	Free	Occupied	Free	Occupied	Free	Occupied	Free	Occupied	Free	Occupied	Free
A	36	25	11	17	19	17	19	24	12	16	20	27	9
B	54	52	2	55	-1	56	-2	55	-1	58	-4	56	-2
F	14	19	-5	18	-4	18	-4	17	-3	19	-5	21	-7
Total	104	96	8	90	14	91	13	96	8	93	11	104	0
		92%	8%	87%	13%	88%	13%	92%	8%	89%	11%	100%	0%

Survey Zone: See Figure X for zone boundary and Table 2 for block description. Surveys were conducted on 8/13/2020
 Total Space (Capacity Estimates): Is estimated based on measuring the curb length of each survey block on both side of the street, subtracting the curb returns, driveways paint curbs, and spaces between driveways that are too short to accommodate a car; then divided by 20 feet (standard parking space length).). It's possible that there were more parked cars counted than the available capacity as many cars are actually less than 20 feet long and parked closely together (as evident with the conditions at Leafwood Drive).
 Occupied: Space has a parked car
 Free: Space is available.

5. Traffic Safety

A traffic safety review was conducted to identify potential traffic safety hot spots near the school and with the modernization project, this include the proposed access, student drop-off, and internal circulation.

The area around the school site is residential and the posted speed limit is 25 mph. The Sunset Pkwy intersection at S. Novato Boulevard is controlled by a traffic signal light while side streets along Sunset Parkway east of S. Novato Boulevard are controlled by stop-signs. School warning signs are also posted along Sunset Parkway, Lynwood Drive, and Leafwood Drive. Traffic collision records for the past three years 2017-2019 compiled by SWITR (Statewide Integrated Traffic Record System) and TIMS (Transportation Injuries Mapping System at UC Berkeley) website indicated there were 4 collisions reported along Leafwood Drive and between Rowland Boulevard and Sunset Pkwy and 2 reported on Sunset Pkwy just west of the intersection at S. Novato Boulevard.

According to the collision reports, three of the collisions on Leafwood involved pedestrian (children) and one near the intersection at Rowland Boulevard is a head-on collision. Traffic volumes in the area near the school are low and there is no apparent unsafe design features along Sunset Pkwy and Leafwood Drive. Recent daily traffic volumes are 1,204 and 1,374 vehicles per day on Leafwood Drive and Sunset Pkwy. One of the contributing factors to the collisions involving children on Leafwood Drive is that the street is fully parked with cars most of the time on both sides of the street, making it difficult for motorists to see small children dashing out to the street while playing on the sidewalks and in front lawn areas of the apartment buildings. There are school warning signs installed on various locations on Leafwood Drive. The speed limit on Leafwood is 25 mph, the prima facie speed limit for residential streets.

There have been no collisions reported on Lynwood Drive near the school. Figure 4 shows the locations of traffic collisions near the school for the past three years.

The current layout of the area in front of the school at the roundabout area must accommodate both student drop-off and school bus stop and could chaotic during the drop-off and pick up times and could have the potential to backup traffic to Sunset Parkway during drop-off and pick up times. Lynwood Drive is the main vehicle access for the school, providing both ingress and egress traffic. The proposed access will separate the ingress and egress traffic; vehicle traffic will enter the school via the driveway at Leafwood Drive and exit via Lynwood Drive. This will create a more orderly internal circulation while minimizing the traffic load at Lynwood Drive. Overall, the proposed access and drop-off plaza layout will improve school traffic circulation and safety.



Figure 4 Study Area Traffic Collisions 2017-2019
Lynwood Elementary School Improvement Traffic Study – Novato

6. Conclusions and Recommendations

6.1 Summary of Conclusions

As indicated in the above analysis, the proposed modernization work will not add new students or staff and will not have a negative impact on traffic operation at and around the school. To the contrary, the modernization work, along with the proposed ingress and egress, reconfiguring the drop-off area, and staff parking lot will improve the overall site access and efficiency, drop-off and pick up operations, internal circulation, and overall traffic safety on and off the site.

As proposed, the Leafwood parking lot will be reverted to school use during school days between 7 am and 5 pm. Leafwood neighborhood residents currently using the parking lot will have to seek other parking alternative. The parking survey indicated that parking on Leafwood Drive was saturated during most times of the day; however, there were available spaces on Leafwood Drive near, just north of the creek. Furthermore, there are parking lanes on Rowland Boulevard near Leafwood Drive that could provide additional parking for Leafwood residents.

Allowing residents to use the Leafwood Drive parking lot during school day and hours will be problematic. The parking lot does not have sufficient width to accommodate the incoming school traffic and residents pulling out from the parking stalls safely to exit to Leafwood Drive.

6.2 Recommendations

While the proposed modernization project will improve site access, parking, drop-off, internal circulation and the overall traffic safety, the school should consider the following measures to further enhance the overall traffic operations.

1. Designate all school traffic (parents and staff) to enter the school from Leafwood Drive and exit to Lynwood Drive and Sunset Drive. School bus and delivery vehicles such as FEDEX and UPS etc. could enter from Lynwood Drive.
2. Provide staff to monitor and assist drop-off and pick up.
3. Develop a transportation and access plan, directing parents to access the school via Leafwood Drive in conjunction with Sunset Pkwy; avoid entering the school from the north via southbound Leafwood Drive as that section of the street is fully parked most time of the day and with children at play along the sidewalk.
4. While the proposed drop-off lane will satisfy the minimum recommended guidelines, pick-up time can be chaotic as most parents would prefer to arrive at school at an earlier time to wait for their students. As such, the transportation and access plan should include a backup plan, designating parents of the upper grades student to use the parking spaces along the east side of S. Novato Boulevard for drop-off and pick up. There are more than 35 angle parking spaces there and a pedestrian path leading to the school.
5. The site shows several parking spaces to be created at the circle, including a handicapped space for easy access to and from the administration building. It is

recommended any landscaping around the both ends of the circle be kept low to provide a clear line of sight for motorists driving around the circle.

Appendix B

Mitigation Monitoring and Reporting Program (to be included in Final Initial Study)

Appendix C

State Clearinghouse Draft IS Circulation Documents (to be included in Final IS)