Notice of Exemption

Appendix E

To: Office of Planning and Research
P.O. Box 3044, Room 113
Sacramento, CA 95812-3044

County Clerk
County of: San Diego

From: (Public Agency): Sweetwater Union High School District
1130 Fifth Avenue
Chula Vista, California 91911

Project Title: San Ysidro High School Campus Improvements

Project Applicant: Sweetwater Union High School District

Project Location – Specific: 5353 Airway Road, San Diego CA 92154

Project Location – City: San Diego Project Location – County: San Diego

Description of Nature, Purpose and Beneficiaries of Project:
The proposed project entails the replacement of Junior Reserve Officer's Training Corps (JROTC) portable classrooms with new permanent buildings and other campus improvements at San Ysidro High School (SYHS) in the community of Otay Mesa, in the City of San Diego, California. Additional improvements include new drill and physical fitness yards at the JROTC complex, and a new campus marque sign. The proposed project would be constructed entirely within the existing boundaries of SYHS.

Name of Public Agency Approving Project: Sweetwater Union High School District

Name of Person or Agency Carrying Out Project: Sweetwater Union High School District

Exempt Status: **(check one)**:

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☒ Categorical Exemption. State type and section number: Accessory Structures, Section 15311, Class 11 In-Fill Development, Section 15332, Class 32
- ☐ Statutory Exemptions. State code number:

Reasons why project is exempt:
Accessory Structures (Class 11): The proposed project includes the construction of a new LED marquee (i.e., sign) on campus property near the existing monument sign at the Airway Road/Caliente Avenue intersection. Because on-premise signs and small parking expressly listed as examples for accessory structures, the new campus marquee is exempt from CEQA review under the Class 11 categorical exemption.

Class 32 (In-Fill Development): The proposed project includes the demolition of existing JROTC portable classrooms and the construction of new modern (and permanent) JROTC buildings as well as new drill and physical fitness yards (the yards would be adjacent to the new buildings). The CEQA Guidelines provide several requirements to meet this definition—each of which are satisfied here. For example, the proposed project's JROTC component (and more broadly, the proposed project) would not conflict with any applicable land use plan, policy, or regulation. The project site has a General Plan designation of Institutional and the campus is zoned AR-1-1 and RM-1-1. Despite the City zones applied to the site, the Institutional land use designation permits non-profit or quasi-public use or institution such as church, library, public or private school, hospital, or municipally owned or operated building, structure or land use for public purpose. Further, the JROTC building site is located on the existing SYHS campus, is less than five acres (the site is approximately 0.50 acres), and is surrounded by Airway Road, SR-905, and SYHS facilities. Lastly, the proposed project (including the JROTC component) would not result in new significant environmental impacts.

Please also see Attachment A to this form that further details the existing environmental setting, proposed project components, and construction activities.

Exceptions to the exemptions
do not apply:
Location: The proposed project is not located in a sensitive location. Rather, the project site is located at an existing high school. The project site is not located on an environmental resource of hazardous or critical concern.. For these reasons, this exception has no application here.

Cumulative Impact. The proposed project would not result in a significant impact. .Compliance with applicable land use and environmental regulations, would ensure that environmental effects associated with the proposed project do not combine with effects from reasonably foreseeable future development in the City to cause cumulatively considerable significant impacts. Please also see Attachment A for additional detail.

Significant Effect The proposed project would not result in a significant impact. Further, the project site is not located in an environmentally sensitive location and the nature of the project would not create any unusual circumstances by which the project would result in a significant impact. Therefore, this exception has no application here.

Scenic Highway. The project site is not located within the vicinity of a state scenic highway. The SYHS campus is approximately 1.5 miles northeast of the nearest State Scenic Highway (I-5 is an eligible state scenic highway from the international border north to approximately SR-75) and thus, would not have a significant adverse impact on scenic resources within a State Scenic Highway. As such, the proposed project would not affect scenic resources, such as state scenic highways, in the area. Therefore, this exception has no application here.

Hazardous Waste Site. The project site does not contain a hazardous waste site that is included on any list complied pursuant to Section 65962.5 of the Government Code. See Attachment A to this form for additional detail. Therefore, this exception has no application here.

Historical Resources. The proposed project site is located on a developed portion of the existing SYHS campus. The proposed project would not involve the demolition of any structures or other campus facilities that could potentially be considered historical resources. Therefore, a substantial adverse change in the significance of historical resources is not anticipated and this exception has no application here.

Lead Agency
Contact Person: Janea Quirk Area Code/Telephone/Extension: 619.585.4439

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project? ☒ Yes ☐ No

Signature: _____ Date: 4/20/2021 Title: ACTING ASSISTANT SUPERINTENDENT FACILITIES & OPERATIONS

☒ Signed by Lead Agency ☐ Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code. Date Received for filing at OPR: _____
Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

SWEETWATER
UNION HIGH SCHOOL DISTRICT

April 26, 2021

Board Item - Q.-4.

Issue:

Resolution No. 4717.

Superintendent's Recommendation:

Adopt Resolution No. 4717, Authorizing a Notice of Exemption for Purposes of Satisfying the California Environmental Quality Act ("CEQA") for the San Ysidro High School Reserve Officers' Training Corps (ROTC) Portables Project, Approving the Project, and Delegating Authority to Staff to Execute and File a Notice of Exemption with the San Diego County Clerk.

Analysis:

The San Ysidro High School Reserve Officers' Training Corps (ROTC) Portables Project includes ROTC buildings replacement and campus marquee. The proposed improvements would bring the school's outdoor recreational amenities up to current state and district standards, gain compliance with the Americans with Disabilities Act (ADA), and benefit students and the surrounding community ("Project").

The district hired an environmental consulting firm that conducted environmental review pursuant to CEQA. Based on the analysis completed, the Project falls under development classes that have been determined not to have a significant effect on the environment and can be categorically exempt from the provisions of CEQA under CEQA Guidelines Sections: 15311 (Accessory Structures) and 15332 (In-Fill Development). Therefore, staff has prepared a Notice of Exemption.

For questions regarding this board item, please contact Janea Quirk at 619/585-6060 or janea.quirk@sweetwaterschools.org.

Fiscal Impact:

None.

ATTACHMENTS:

Description	Type
Q-4 Reso. 4717 CEQA SYH ROTC - as	Backup Material
Q-4 Reso. 4717 CEQA SYH ROTC - NOE with Attachments - as	Backup Material

SWEETWATER UNION HIGH SCHOOL DISTRICT

RESOLUTION NO. 4717

RESOLUTION AUTHORIZING A NOTICE OF EXEMPTION FOR PURPOSES OF SATISFYING THE CALIFORNIA ENVIRONMENTAL QUALITY ACT ("CEQA") FOR THE SAN YSIDRO HIGH SCHOOL RESERVE OFFICERS' TRAINING CORPS (ROTC) PORTABLES PROJECT, APPROVING THE PROJECT, AND DELEGATING AUTHORITY TO STAFF TO EXECUTE AND FILE A NOTICE OF EXEMPTION WITH THE SAN DIEGO COUNTY CLERK

ON THE MOTION OF Member Arancibia, seconded by Member Segura, the following resolution is adopted:

WHEREAS, the Sweetwater Union High School District ("District") is a public school district organized and existing under the laws of the State of California; and

WHEREAS, the District is the lead agency under the California Environmental Quality Act ("CEQA") for the San Ysidro High School Reserve Officers' Training Corps (ROTC) Portables Project ("Project"); and

WHEREAS, the Reserve Officers' Training Corps (ROTC) Portables Project includes ROTC buildings replacement and campus marquee; and

WHEREAS, the district hired a firm specializing in CEQA environmental compliance that undertook environmental analysis for the Project; and

WHEREAS, the environmental analysis documents that the Project is categorically exempt under Classes 11, 32, CEQA Guidelines Sections: 15311 (Accessory Structures) and 15332 (In-Fill Development), and a Notice of Exemption has been prepared; and

WHEREAS, the board has reviewed and considered the environmental analysis completed for the Project; and

WHEREAS, the board has determined that the Notice of Exemption incorporated therein is adequate, complete, and has been prepared in accordance with CEQA; and

WHEREAS, the Notice of Exemption has been prepared in compliance with CEQA and reflects the District's independent judgment and analysis; and

WHEREAS, all other legal prerequisites to the adoption of this resolution have been met.

NOW, THEREFORE, BE IT RESOLVED:

Section 1: The above recitals are true and correct.

Section 2: The Notice of Exemption prepared for the Project has been completed in accordance with CEQA guidelines.

Section 3: The Notice of Exemption reflects the board's independent judgment and analysis.

Section 4: The board hereby approves and adopts the Notice of Exemption for the project per the State CEQA guidelines.

Section 5: The board hereby approves the Project.

Section 6: The board hereby delegates authority to staff to execute and file the Notice of Exemption with the County Clerk and the State Clearinghouse.

Section 7: The Notice of Exemption constitutes a record of these proceedings and will be kept at the offices of the Sweetwater Union High School District, located at 1130 Fifth Avenue, Chula Vista, CA 91911, under the control of the director of planning and construction.

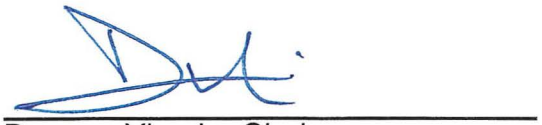
PASSED AND ADOPTED by the Board of Trustees of the Sweetwater Union High School District, County of San Diego, State of California, this 26th day of April, 2021, by the following vote:

AYES:	5	(ARANCIBIA, HALL, SEGURA, SOLIS, TARANTINO)
NOES:	0	
ABSTAIN:	0	
ABSENT:	0	

****

State of California)
) SS
County of San Diego)

I, Deanne Vicedo, Clerk of the Board of Trustees of the Sweetwater Union High School District, County of San Diego, State of California, do hereby certify that the foregoing is a true copy of a resolution adopted by said board at a regular meeting thereof, at the time and by the vote therein stated, which original resolution is on file in the office of said board.



Deanne Vicedo, Clerk

April 26, 2021
Date

Attachment A

NOE Supplemental Document

Project Overview

The proposed project entails the replacement of Junior Reserve Officer's Training Corps (JROTC) portable classrooms with new permanent buildings and other campus improvements at San Ysidro High School (SYHS) in the community of Otay Mesa, in the City of San Diego, California. Additional improvements include a new drill and physical fitness yards at the JROTC complex, and a new campus marque sign. The proposed project would replace aged portable classroom space with modern buildings and improve campus messaging. The proposed project would be constructed entirely within the existing boundaries of SYHS.

Construction of the campus improvements would be constructed with bond funding from SUHSD's Proposition O and would be maintained by SUHSD.

The proposed project would not increase the student capacity at the school. During construction of the JROTC complex, students would be relocated to existing and available on-campus classroom space.

Project Location

The project site is located entirely within the existing boundaries of SYHS, located at 5353 Airway Road, in San Diego, California (Figure 1, Project Location). The City is divided into multiple community plan areas. The project site is located within the Otay Mesa Community Plan Area, and is bordered by residential uses to the east, undeveloped mesa lands to the south, a canyon and residential uses to the west, and State Route 905 to the north.

The project site has a General Plan designation of Institutional. The project site has zoning designations of AR-1-1 (Agricultural Residential) and RM-1-1 (Residential-Multiple Unit).

Environmental Setting

SYHS serves students from 9th grade to 12th grade and sits on 52 acres of land located two miles from the international border with Mexico. Student enrollment (2018-2019) at the school was 2,426 students (SUHSD 2020). Classes on a typical block schedule begin at 7:30 a.m. and end at 3:35 p.m. (SUHSD 2021).

The campus is in the southeast corner of Otay Mesa's Northwest District. The Northwest District of Otay Mesa is generally bounded by I-805 on the west, Moody Canyon to the south, Dennery Canyon to the west, and the boundary with Chula Vista to the north. The district is characterized by hilltop low density single-family residential development, a canyon system with protected sensitive biological resources and habitat areas, and associated community and regional commercial services. As

previously stated, the campus is approximately 52 acres. Except for the track and field stadium, athletic fields to the east and south, and campus green space, the campus is developed with buildings, as well as paved walkways and parking lots.

Surrounding land uses are primarily condominium residences to the east, undeveloped mesa lands and canyons to the south, a canyon and single-family residential uses to the west, and State Route 9-5 to the north. Two schools within the San Ysidro School District, Vista Del Mar School (K-6) and Ocean View Hills School (K-8), are located to the northwest of SYHS (i.e., north of State Route 905). In addition, 20-acre Cesar Solis Park is located adjacent to Ocean View Hills School.

Canyons located to the west and south of SYHS are designated by the City's Multiple Species Conservation Program (MSCP) Subarea Plan as a Multihabitat Planning Area(MHPA).

Proposed Project

JROTC Buildings Replacement

The JROTC buildings are in the northern portion of campus, adjacent to the outdoor tennis court, campus gymnasium, and Airway Road. The four portable classroom buildings are located on a partially paved and fenced, approximately 0.50-acre site. In addition to the single-story, rectangular buildings and asphalt concrete paving, landscape areas are located on site and are planted with several trees. From east to west, the site features an abrupt descending slope from the adjacent parking lot to the east which softens to relatively flat across the paved surface. At the pavement to landscape transition and west to the edge of the site, the slope falls a total of approximately 8 feet. Existing conditions of the JROTC Building site are depicted in Figure 2, Existing Conditions - JROTC Site.

The development footprint of the new building, drill yard and physical fitness area would be demolished. A six-foot tall retaining wall would be constructed around the west, north, east (and partially, the south) of this area to accommodate fill and develop an appropriate building pad. The drill yard and physical fitness area (9,760 SF) would be leveled and surfaced with asphalt concrete paving. The permanent JROTC building (5,280 SF) would be approximately 12 feet tall and in addition to four classrooms, would feature two office spaces, boys and girls restrooms and locker rooms, an all-gender rest room, IT and custodial space , uniform storage , and armory. A concrete walk would be installed between the building and the drill yard and physical fitness area. The walk would include concrete bench and landscape planters. A six-foot wide, stabilized DG walkway would be constructed along the east, north, and west perimeter of the building and would be lined by a parallel landscape area planted with shrubs. Proposed conditions of the JROTC Building site are depicted in Figure 3, Proposed Conditions - JROTC Site.

Construction of the JROTC campus would take approximately six months to complete.

Campus Marquee

A new campus marquee is proposed at the site of the existing low-profile, concrete monument site at on the SYHS campus at the southwestern corner of the Airway Road/Caliente Avenue intersection. Under existing conditions, the tapering sign is located atop a low concrete masonry block foundation and is inscribed as follows: "SAN YSIDRO HIGH SCHOOL 5353 AIRWAY ROAD". Three tubular steel flagpoles/cell towers are installed behind the sign and are in the landscaped area off the performing arts center drop-off. The existing sign and flagpoles/cell towers would remain in place.

In addition to the removal of existing grass and installation of new landscaping (primarily shrubs) that would occur near the existing sign, a new LED marquee sign and concrete footing would be installed. The LED marquee sign would be installed approximately within 3 feet of the existing sign. The marquee, which would include a 3 foot by 12 foot illuminated static logo and a 4 foot by 12-foot full color LED message, would be supported by two, 10-foot-high concrete columns. A new paved bulb out area would provide access from the adjacent drop-off to the LED marquee. An enlarged site plan illustrating a plan view of the marquee and new landscaping, is included on Figure 4, Proposed Conditions - Marquee Site. A conceptual elevation of the campus marquee is provided on Figure 5, Colored Elevation of Proposed Marquee.

Construction of the campus marquee would take approximately two weeks (i.e., approximately 10 business days) to complete.

Construction

Construction activities for all project components are anticipated to occur over an approximate six (6) month timeframe. For example, construction of the JROTC buildings replacement component would occur over an approximate six month timeframe and the campus marquee would occur over an approximate two (2) week timeframe. It is anticipated that construction of the JROTC component would begin in August 2021. The construction schedule and equipment for the JROTC Buildings Replacement are provided in Table 1, Construction Scenario – JROTC Buildings Replacement.

Table 1. Construction Scenario – JROTC Building

Phase	Length (days)	Equipment	Hours Equipment in Use	Number of Equipment
Demolition	5 days	Rubber Tire Dozers	1	1
		Concrete/Industrial Saws	8	1
		Tractors/Loaders/Backhoes	6	1

Table 1. Construction Scenario – JROTC Building

Phase	Length (days)	Equipment	Hours Equipment in Use	Number of Equipment
Site preparation	5 days	Graders	8	1
		Tractors/Loaders/Backhoes	8	1
Grading	7 days	Rubber Tire Dozers	1	1
		Concrete/Industrial Saws	8	1
		Tractors/Loaders/Backhoes	6	1
Trenching	10 days	Tractors/Loaders/Backhoes	6	2
Paving	5 days	Pavers	7	1
		Cement & Mortar Mixers	6	1
		Rollers	7	1
		Tractors/Loaders/Backhoes	7	1
Construction	96 days	Cranes	4	1
		Forklifts	6	1
		Tractors/Loaders/Backhoes	8	1

Construction access would be provided via Airway Road and Caliente Avenue, depending on project component location. The proposed project would incorporate best management practices (BMPs) during construction to minimize stormwater runoff in compliance with the State Water Resources Control Board's Construction General Permit.

Table 2 provides a summary of the standard operating procedures and specifications that would be implemented by the District in compliance with federal and state environmental regulations.

Table 2. Construction Standard Operating Procedures and Specifications

Standard Construction Measures (CMs)	Description
CM-1: Compliance with State CEQA Guidelines Section 15064.5(f)	In the event unexpected archaeological resources are uncovered during ground-disturbing activities associated with the proposed project, work must stop in the immediate area until it is evaluated by a qualified archaeologist to ensure satisfactory compliance with applicable regulations (14 California Code of Regulations (CCR) 15064.5(f)).

Table 2. Construction Standard Operating Procedures and Specifications

Standard Construction Measures (CMs)	Description
CM-2: Compliance with State Health and Safety Code Section 7050.5	Should human remains be uncovered during construction, as specified by California Health and Safety Code, Section 7050.5, no further disturbance would occur until the County Coroner has made the necessary findings as to the origin and disposition pursuant to California Public Resources Code, Section 5097.98. If such a discovery occurs, excavation or construction would halt around the discovery, the area would be protected, and consultation and treatment would occur as prescribed by law. If the County Coroner recognizes the remains to be Native American, he or she would contact the Native American Heritage Commission, who would appoint the most likely descendant. Additionally, if the bones are determined to be Native American, a plan would be developed regarding the treatment of human remains and associated burial objects, and the plan would be implemented in coordination with the most likely descendant.
CM-3: Compliance with the General Construction Permit	If construction activities disturb 1 or more acres of land through clearing, grading, excavating, or stockpiling of fill material, a Stormwater Pollution Prevention Plan (SWPPP) shall be developed prior to construction. Site Design, Source Control, and Treatment Control Best Management Practices (BMPs) shall be implemented per the City's Stormwater Standards Manual.
CM-4: Compliance with City of San Diego Noise Ordinance	The contractor will be required to comply with the City's noise ordinance criteria. Thus, the construction contractor should work in a manner so that the 12-hour average sound level does not exceed 75 decibels (dB) at any residence and construction activity is only permitted between the hours of 7:00 a.m. and 7:00 p.m., Monday through Saturday. Construction is prohibited on Sundays or legal holidays. The Contractor will include measures such as: • Locate noisy equipment as far as possible from the site boundaries and occupants of buildings • Erect temporary noise barriers around stationary equipment (i.e., compressors, generators, etc.) • Equip construction equipment, fixed or mobile, with properly operating and maintained muffler exhaust systems

Exempt Status

The proposed project is exempt from CEQA under Article 19, Categorical Exemptions. More specifically, the project is exempt from CEQA under the following sections:

Section 15311, Accessory Structures (Class 11)

Class 11 consists of construction, or replacement of minor structures accessory to (appurtenant to) existing commercial, industrial, or institutional facilities, including but not limited to:

(a) On-premise signs.

(b) Small parking lots.

(c) Placement of seasonal or temporary use items such as lifeguard towers, mobile food units, portable restrooms, or similar items in generally the same locations from time to time in publicly owned parks, stadiums, or other facilities designed for public use.

The proposed project includes the construction of a new LED marquee (i.e., sign) on campus property near the existing monument sign at the Airway Road/Caliente Avenue intersection. Because on-premise signs are expressly listed as examples for accessory structures, the new campus marquee is exempt from CEQA review under the Class 11 categorical exemption for the "construction, or replacement of minor structures accessory to (appurtenant to) existing commercial, industrial, or institutional facilities" 14 CCR § 15311).

Section 15332, In-Fill Development Projects (Class 32)

Class 32 consists of projects characterized as in-fill development meeting the conditions listed below:

(a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.

(b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.

(c) The project site has no value, as habitat for endangered, rare or threatened species.

(d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.

(e) The site can be adequately served by all required utilities and public services.

The proposed project includes the demolition of existing JROTC portable classrooms and the construction of new modern (and permanent) JROTC buildings as well as new drill and physical fitness yards (the yards would be adjacent to the new buildings). The CEQA Guidelines provide several requirements to meet this definition—each of which are satisfied here. For example, the proposed project's JROTC component (and more broadly, the proposed project) would not conflict with any applicable land use plan, policy, or regulation. The SYHS campus has a General Plan designation of Institutional and is zoned AR-1-1 (Agricultural Residential) and RM-1-1 (Residential-Multiple Unit). Despite the City zoning applied to the campus, the Institutional land use designation permits "non-profit or quasi-public use or institution such as church, library, public or private school, hospital, or municipally owned or operated building, structure or land use for public purpose" (City of Chula Vista 2020). Further, the JROTC building site is located on the existing SYHS campus, is less than five acres (the site is approximately 0.50 acres), and is surrounded by Airway Road, SR-905, and SYHS facilities. Lastly, the proposed project (including the JROTC component) would not result in new significant environmental impacts as detailed in Air Quality, Greenhouse Gas, and Energy; Nesting Bird, and Noise technical analyses prepared for the proposed project. See Attachments B, C, and D. Because the JROTC development satisfies each requirement under 14 CCR § 15332, the JROTC development is categorically exempt from CEQA.

Exceptions to Exemptions

The CEQA Guidelines provide exceptions for the use of a Categorical Exemption under Section 15300.2. These include the following:

> (a) Location. Classes 3, 4, 5, 6, and 11 are qualified by consideration of where the project is to be located -- a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant. Therefore, these classes are considered to apply all instances, except where the project may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.
>
> (b) Cumulative Impact. All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.
>
> (c) Significant Effect. A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.
>
> (d) Scenic Highways. A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock

outcroppings, or similar resources, within a highway officially designated as a state scenic highway. This does not apply to improvements which are required as mitigation by an adopted negative declaration or certified EIR.

(e) Hazardous Waste Sites. A categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code.

(f) Historical Resources. A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource (CEQA Guidelines Section 15300.2).

Location

The proposed project is not located in a sensitive location. Rather, the development sites are on an existing high school. The development sites are not located on an environmental resource of hazardous or critical concern. Further, the proposed improvements have small footprints, and have been optimized with the best management practices to eliminate the potential impacts of land development. Therefore, the proposed improvements would not have an impact on a particularly sensitive environment.

Cumulative Impact

The proposed project would not result in a significant impact. Compliance with applicable land use and environmental regulations, would ensure that environmental effects associated with the proposed project do not combine with effects from reasonably foreseeable future development in the City to cause cumulatively considerable significant impacts.

Significant Effect

The proposed project would not result in a significant impact. Further, the project site is not located in an environmentally sensitive location and the nature of the project would not create any unusual circumstances by which the project would result in a significant impact.

Scenic Highways

The project site is not located within the vicinity of a state scenic highway. The SYHS campus is approximately 1.5 miles northeast of the nearest State Scenic Highway (I-5 is an eligible state scenic highway from the international border north to approximately SR-75; Caltrans 2021) and thus, would not have a significant adverse impact on scenic resources within a State Scenic Highway. Further, the

site is located within an already developed school campus would not include the installation of new visually prominent features. As such, the proposed project would not affect scenic resources, such as state scenic highways, in the area.

Hazardous Waste Sites

A search of federal, state, and local databases regarding hazardous material releases and site cleanup lists was conducted for the development sites. The development sites and SYHS campus are not included on a list of hazardous materials sites, such as the Department of Toxic Substance Control's EnviroStor Hazardous Waste and Substance Site List (DTSC 2020), the State Water Resources Control Board's (SWRCB) GeoTracker site (SWRCB 2020, 2021), CalEPA's Cortese list (which is informed by the DTSC EnviroStor database, SWRCB Geotracker database, and other lists maintained by state agencies; CalEPA 2020), or the federal Superfund Site list (U.S. EPA 2020).

Historical Resources

The development sites are located on the existing SYHS campus. The proposed project would not involve the demolition of any structures or other campus facilities that could potentially be considered historical resources. Specifically, the proposed project includes the removal of existing JROTC portable classrooms which are not considered historical resources. The development sites have been substantially disturbed by previous grading activities associated with the existing high school facilities on site. Therefore, it is unlikely that any historical resources would be found or disturbed during proposed project construction.

References

14 CCR 15000–15387 and Appendices A through L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

California Public Resources Code, Section 21000–21177. California Environmental Quality Act, as amended.

Caltrans (California Department of Transportation). 2021. List of eligible and officially designated State Scenic Highways (XLSX). Accessed February 15, 2021. https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways

CalEPA (California Environmental Protection Agency). 2018. Cortese List Data Resources. Accessed November 28, 2020. http://www.calepa.ca.gov/sitecleanup/corteselist/.

California Department of Toxic Substances Control. 2018. *EnviroStor Database*, Search by Map Location. Accessed November 28, 2020. http://www.envirostor.dtsc.ca.gov/public/.

City of Chula Vista. 2020. Chula Vista Vision 2020 General Plan. Amended December 13, 2005. Amended March 17, 2020.

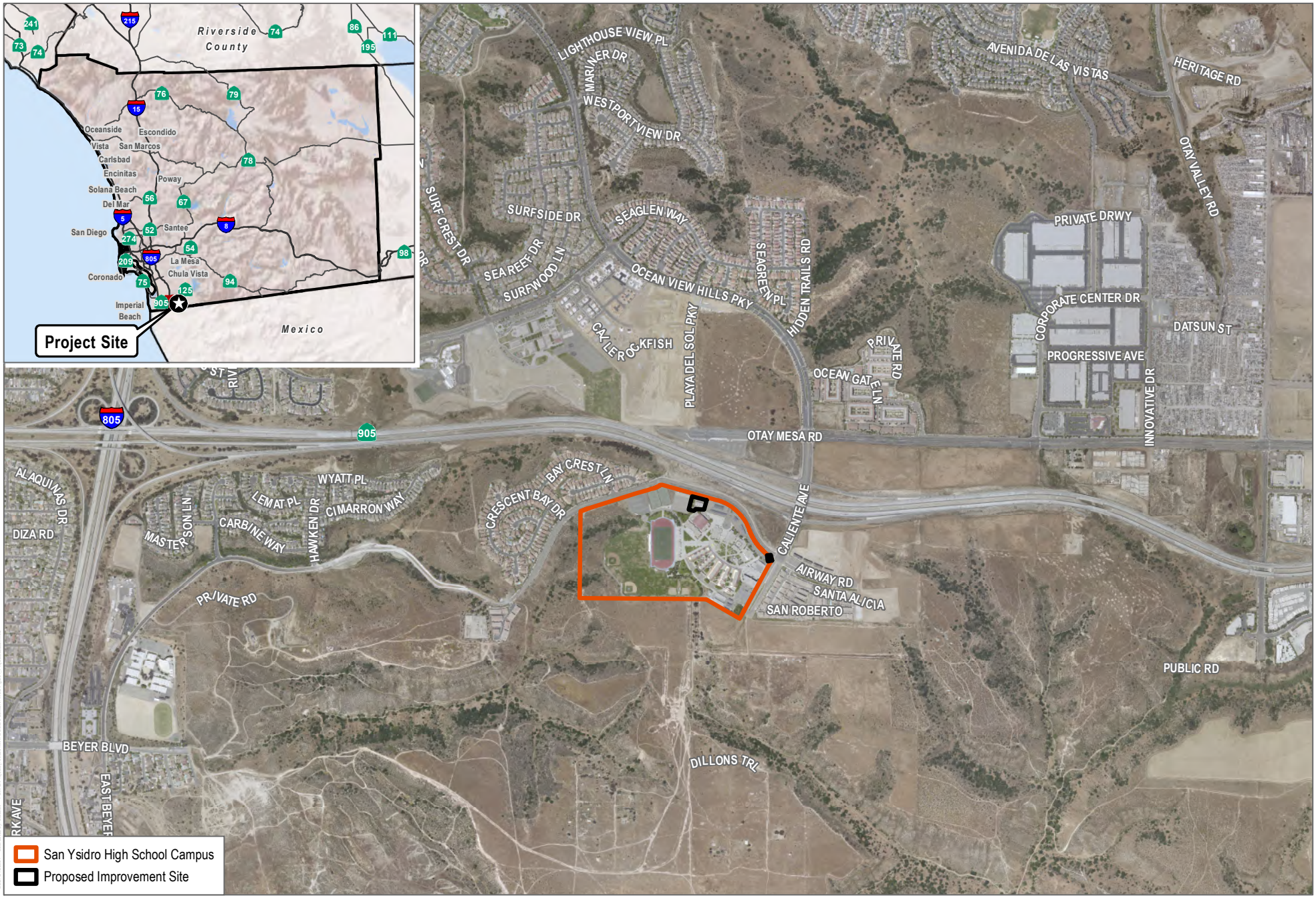
SUHSD (Sweetwater Union High School District). 2020. *San Ysidro High School Accountability Card. 2018-2019 School Year*. http://syh.sweetwaterschools.org/about-us/school-accountability-report-card-sarc/. Accessed October 3, 2020.

State Water Resources Control Board (SWRCB). 2020. GeoTracker Database, List of Leaking Underground Storage Tank (LUST). Accessed February 15, 2021. http://geotracker.waterboards.ca.gov/.

SWRCB. 2021. GeoTracker Database, Search by Map Location. Accessed February 15, 2021. http://geotracker.waterboards.ca.gov/.

SUHSD. 2021. *San Ysidro High School Bell Schedule*. http://syh.sweetwaterschools.org/calendar/. February 15, 2021.

U.S. EPA (United States Environmental Protection Agency). 2020. Superfund Site Search Results (National Priorities List). Last updated June 3, 2020. Accessed November 28, 2020 https://www.epa.gov/superfund/search-superfund-sites-where-you-live.



SOURCE: SANGIS 2019, 2020

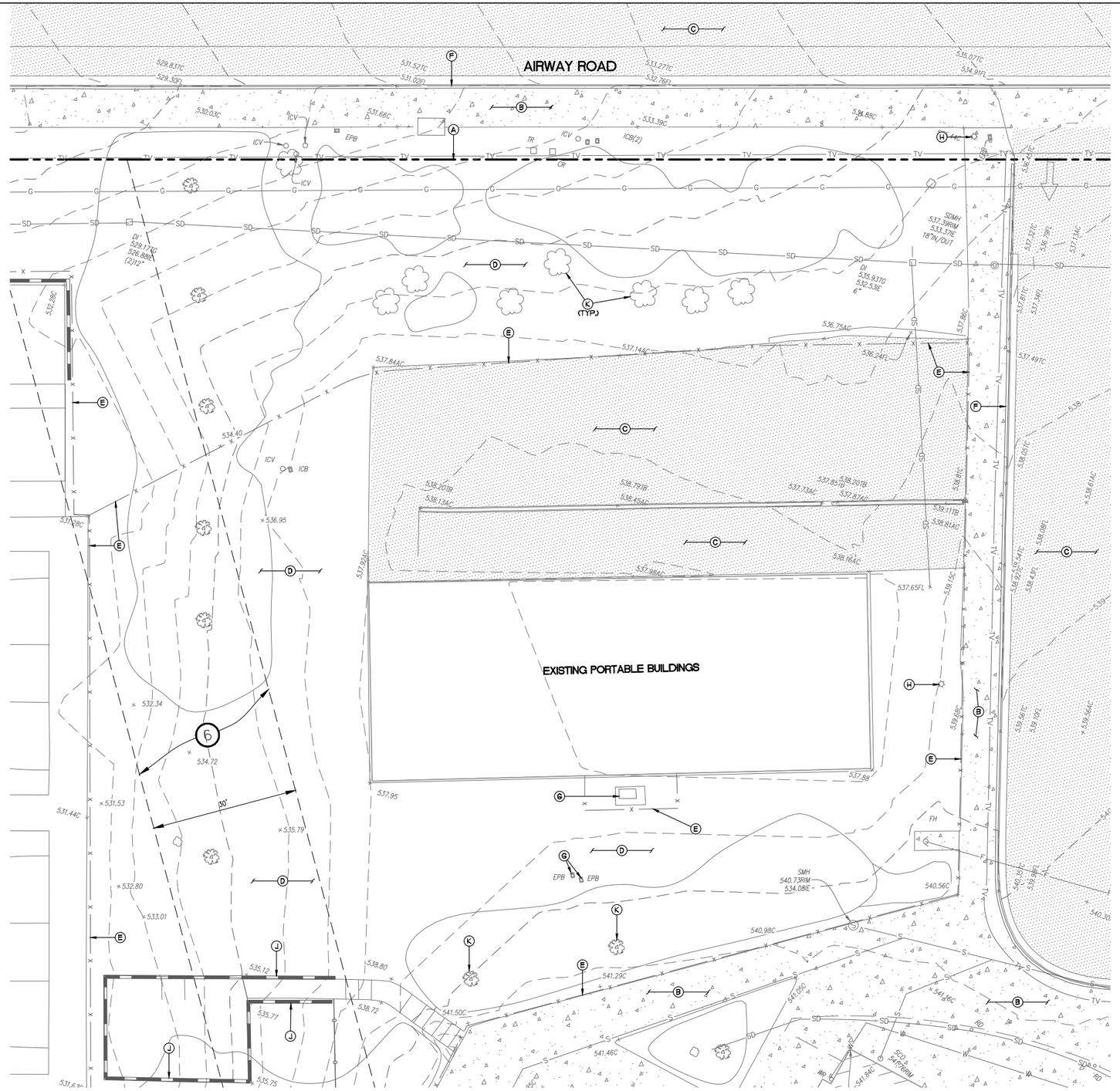
DUDEK

0 750 1,500 Feet

FIGURE 1

Project Location

San Ysidro High School Campus Improvements Project



KEYNOTE LEGEND

- (A) PROJECT BOUNDARY.
- (B) EX. CONCRETE SIDEWALK.
- (C) EX. AC PAVEMENT.
- (D) EX. LANDSCAPE.
- (E) EX. FENCE.
- (F) EX. CONCRETE CURB & GUTTER.
- (G) EX. ELECTRICAL STRUCTURE.
- (H) EX. LIGHT.
- (J) EX. RETAINING WALL.
- (K) EX. TREE.

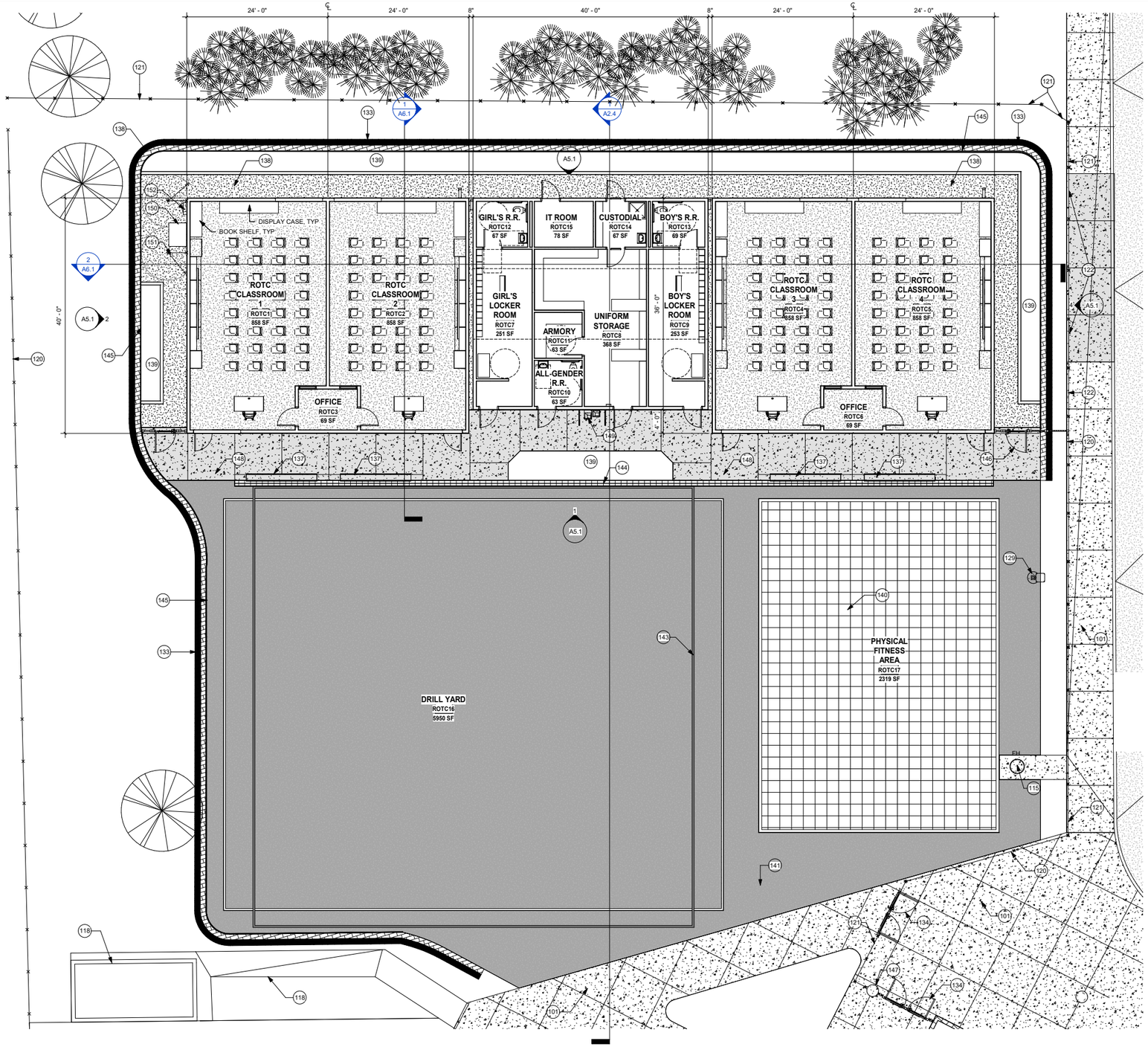
SOURCE: Studio WC 2020

FIGURE 2

Existing Conditions - JROTC Site

San Ysidro High School Campus Improvements Project

DUDEK



KEYNOTE LEGEND

101	(E) CONC. WALK TO REMAIN. PROTECT IN PLACE
115	(E) FIRE HYDRANT TO REMAIN. PROTECT IN PLACE
118	(E) WALK/ STAIRS & CELL TOWER EQUIP./ ENCLOSURE TO REMAIN. PROTECT IN PLACE
120	(E) DEC. STL. FENCE TO REMAIN. REPAIR, PREP, PRIME PAINT ANY DAMAGED AREAS. PROTECT IN PLACE
121	(N) 8' DEC. STL. FENCE TO MATCH (E) PER SPECS. & DETAIL
122	(N) 8' DEC. STL. FENCE INFILL TO MATCH (E) PER SPECS. & DETAIL
129	(E) LIGHT POLE STANDARD & CONC. BASE TO REMAIN. PROTECT IN PLACE
133	(N) SEGMENTED RETAINING WALL W/ GEOGRID. SEE STRUCT. DWGS
134	(N) ACCESSIBLE GATE(S) W/ PANIC HARDWARE, PER SPECS. & DETAIL
137	(N) CONC. BENCH PER DETAIL
138	(N) STABILIZED D.G. MAINTENANCE WALK W/ 6" W X 8" D CURB PER SPECS & DETAIL
139	(N) LANDSCAPE AREA. SEE LANDSCAPE DWGS.
140	(N) RUBBERIZED SURFACE W/ 8" W X 12" D CONC. CURB PERIMETER & UNDERSURFACE DRAINAGE PER CIVIL. SEE SPECS & DETAILS
141	(N) AC PAVING W/ COOLSEAL TOPPING PER SPECS
143	(N) 4" WIDE PAVEMENT STRIPING IN SCHOOL COLOR (BLUE) FOR ARMED DRILL PAD 70' X 85'
144	(N) TRENCH DRAIN. SEE CIVIL DWGS.
145	(N) GUARDRAIL PER SPECS. & DETAIL
146	(N) DEC. STL. MAINTENANCE GATE PER SPECS & DETAIL
147	(E) COLUMN TO REMAIN. PROTECT IN PLACE
148	(N) CONC. WALK - 4" THK. W/ #3 REINF. @ 18" O.C. EA. WAY, TYP. U.N.O.
149	ACCESSIBLE HI-LO DRINKING FOUNTAIN & FILL STATION, PER SPECS & DETAIL
150	(N) PAD MOUNTED ELEC. TRANSFORMER. SEE STRUCT. & ELEC. DWGS.
151	(N) 6' CL FENCE/ GATES PER SPECS & DETAILS
152	(N) ELEC. PANEL. SEE ELEC. DWGS.

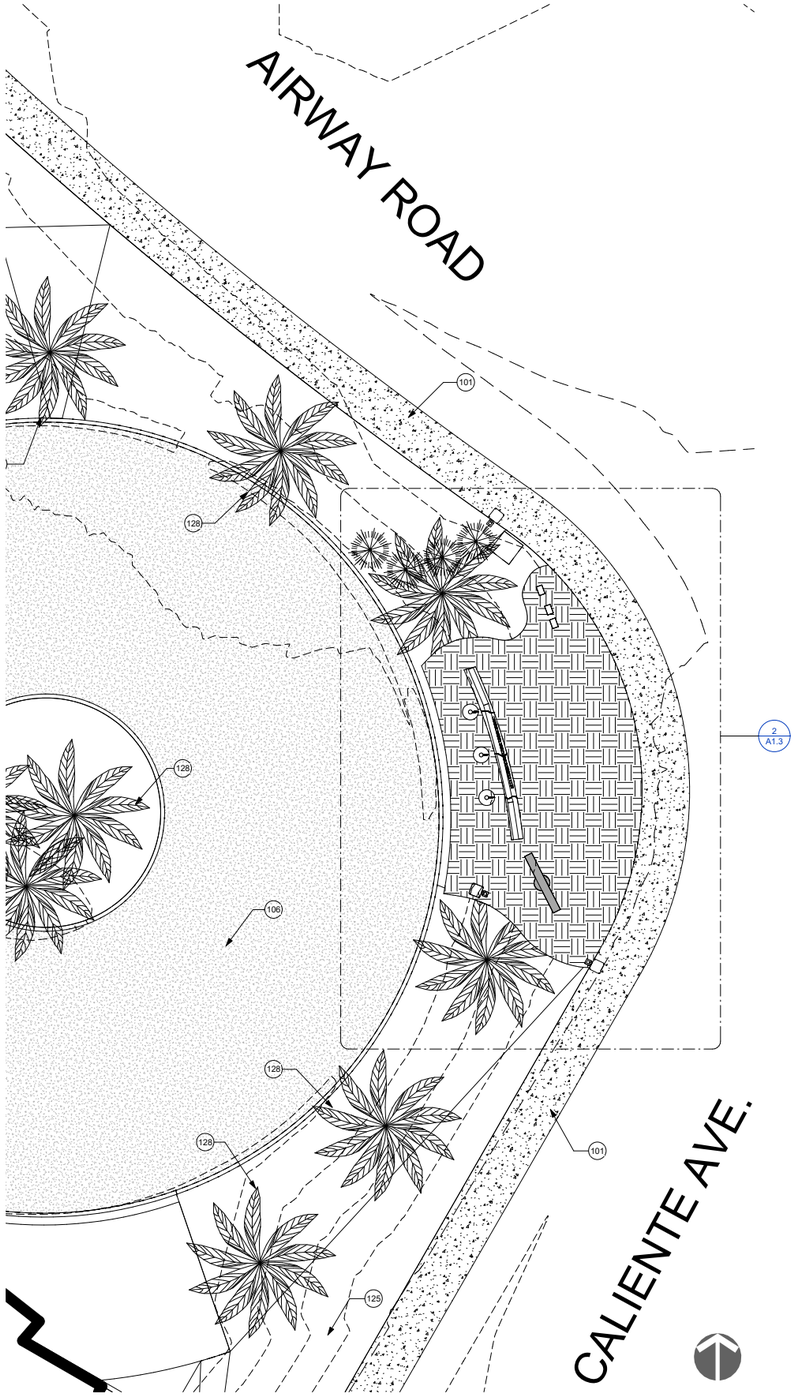
SOURCE: Studio WC 2020

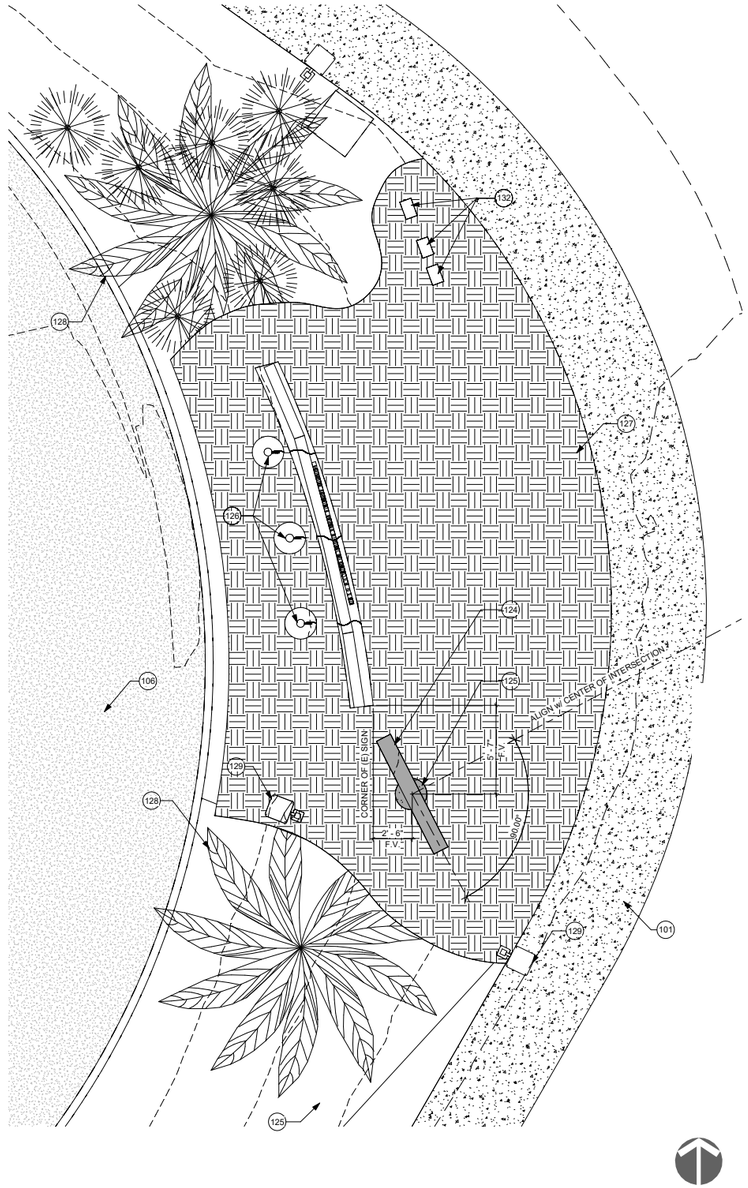
FIGURE 3

Proposed Conditions - JROTC Site

San Ysidro High School Campus Improvements Project

DUDEK





KEYNOTES

101	(E) CONC. WALK TO REMAIN. PROTECT IN PLACE
106	(E) AC PAVED DRIVE TO REMAIN. PROTECT IN PLACE
124	(N) MARQUEE SIGN & CONCRETE FOOTING. CONTRACTOR TO FURNISH & INSTALL. SEE SPECS & PC DWG
125	ROUTE (N) ELECTRICAL SERVICE TO MARQUEE. TRENCH TO (E) SERVICE PER ELEC. REPAIR/ REPLACE LANDSCAPING TO MATCH (E) & PER LANDSCAPE DWGS.
126	(E) FLAGPOLE/ CELL TOWER & CONC. FOOTING TO REMAIN. PROTECT IN PLACE
127	(N) AREA OF LANDSCAPE. SEE LANDSCAPE DWGS
128	(E) PALM TREES TO REMAIN. PROTECT IN PLACE. TRIM AS INDICATED IN LANDSCAPE DWGS
129	(E) LIGHT POLE STANDARD & CONC. BASE TO REMAIN. PROTECT IN PLACE
132	(E) UTILITY BOX, PROTECT IN PLACE

SOURCE: Studio WC 2021

FIGURE 4

Proposed Conditions - Marquee Site

San Ysidro High School Campus Improvements Project

DUDEK

SOURCE: NEVCO 2020

FIGURE 5

Elevation of Proposed Marquee

San Ysidro High School Campus Improvements Project

DUDEK

Attachment B

Air Quality, Greenhouse Emissions, and Energy Assessment

MEMORANDUM

To:	Janea Quirk and Armando Murillo, Sweetwater Union High School District
From:	Matthew Morales, Dudek
Subject:	Air Quality, Greenhouse Gas Emissions, and Energy Assessment for the San Ysidro High School Campus Improvements Project, City of San Diego, California
Date:	March 18, 2021
cc:	Josh Saunders, Dudek
Attachment(s):	A, Air Quality, Greenhouse Gas, and Energy Calculations

Dudek has prepared the following air quality, greenhouse gas (GHG) emissions, and energy assessment for the proposed San Ysidro High School (SYHS) Campus Improvements Project (proposed project) in the City of San Diego (City), California. The purpose of the assessment is to identify potential significant impacts (in the context of significance criteria provided in Appendix G of the CEQA Guidelines) associated with construction and operation of the SYHS Campus Improvements Project.

1 Project Description

The proposed project entails the replacement of Junior Reserve Officer's Training Corps (JROTC) portable classrooms with new permanent buildings and other campus improvements at SYHS in the community of Otay Mesa, in the City of San Diego, California. Additional improvements include a new drill and physical fitness yards at the JROTC complex, and a new campus marque sign. The proposed project would replace aged portable classroom space with modern buildings, and improve campus messaging. The proposed project would be constructed entirely within the existing boundaries of SYHS. The proposed project would be constructed entirely within the existing boundaries of SYHS. The proposed project would not increase the student capacity at the school and would not involve any temporary relocation of students during construction.

2 Air Quality Assessment

2.1 Thresholds of Significance

The significance criteria used to evaluate the proposed project impacts to air quality are based on the recommendations provided in Appendix G of the CEQA Guidelines. For the purposes of this air quality analysis, a significant impact would occur if the proposed project would (14 CCR 15000 et seq.):

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.
3. Expose sensitive receptors to substantial pollutant concentrations.
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) indicates that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to determine whether the proposed project would have a significant impact on air quality.

The proposed project site is located within the San Diego Air Basin (SDAB), which is governed by the San Diego Air Pollution Control District (SDAPCD). The SDAPCD has not developed CEQA thresholds of significance for air quality; however, the City has established CEQA screening-level thresholds for air quality impact analyses based on the SDAPCD Air Quality Impact Assessments trigger levels, which are based on emissions levels identified under the New Source Review program. As part of its air quality permitting process, SDAPCD has established thresholds in Rule 20.2 and Rule 20.3 requiring the preparation of Air Quality Impact Assessments for permitted stationary sources (non-major and major stationary sources, respectively) (SDAPCD 2020a, 2020b). SDAPCD sets forth quantitative emission thresholds below which a stationary source would not have a significant impact on ambient air quality.

For CEQA purposes, the screening-level thresholds established by the City can be used as numeric methods to demonstrate that a project's total emissions would not result in a significant impact to air quality for projects within the City. Accordingly, the thresholds listed in Table 1 are used to evaluate whether proposed project-related emissions could cause a significant impact on air quality. For nonattainment pollutants, if emissions exceed the thresholds shown in Table 1, the proposed project could have the potential to result in a cumulatively considerable net increase in these pollutants and thus, could have a significant impact on the ambient air quality; conversely, emissions below the screening-level thresholds would not cause a significant impact. Proposed project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 1 would be exceeded.

Table 1. Air Quality Significance Thresholds

Construction and Operational Criteria Pollutants Mass Daily Thresholds			
	Total Emissions		
Pollutant	Pounds per Hour	Pounds per Day	Tons per Year
Respirable particulate matter (PM_{10})	—	100	15
Fine particulate matter ($PM_{2.5}$)	—	55	10
Oxides of nitrogen (NO_x)	25	250	40
Sulfur oxides (SO_x)	25	250	40
Carbon monoxide (CO)	100	550	100
Lead and lead compounds	—	3.2	0.6
Volatile organic compounds (VOC)	—	137[a]	15

Source: SDAPCD Rules 20.2(d)(2) and 20.3(d)(2).
Notes: VOCs = volatile organic compounds; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter.
[a] VOC threshold based on Monterey Bay Air Board (MBARD) levels, which has similar federal and state attainment status to San Diego.

2.2 Approach and Methodology

Construction

Emissions from the construction of the project were estimated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 model. CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant emissions associated with the construction and operational activities from a variety of land use projects, such as residential, commercial, educational, and industrial facilities.

Construction scenario assumptions, including phasing, equipment mix, and vehicle trips, were based on information provided by the Sweetwater Union High School District (SUHSD) and CalEEMod-generated default values. Complete detailed construction assumptions are included in Attachment A.

For purposes of estimating the proposed project emissions, and based on information provided by the SUHSD and its construction contractors, it is assumed that construction of the project would begin in August 2021 for a duration of about 6 months. The analysis contained herein is based on the assumptions outlined in Table 2 (duration of phases is approximate). The proposed project schedule was based on information provided by SUHSD.

Table 2. Construction Phasing Assumptions

Project Construction Phase	Construction Phase Duration (Days)	Construction Start Month/Year	Construction End Month/Year
Junior Reserve Officer's Training Corps Building			
Demolition	5	8/9/2021	8/13/2021
Site preparation	5	8/14/2021	8/19/2021
Grading	7	8/20/2021	8/27/2021
Trenching	10	8/28/2021	9/8/2021
Building construction	96	9/9/2021	12/29/2021
Paving	15	12/30/2021	1/19/2022
Architectural coatings	15	1/20/2022	2/9/2022
Marque Sign			
Marque sign construction	10	2/10/2022	2/23/2022

Notes: See Attachment A for details.

The mix of construction equipment used for estimating the construction emissions of the proposed project is based on SUHSD-provided information and CalEEMod default values as shown in Table 3. For this analysis, it was assumed that heavy construction equipment would operate 6 days a week during project construction.

Table 3. Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Equipment Type	Quantity	Daily Usage Hours
Junior Reserve Officer's Training Corps Building						
Demolition	8	2	44	Concrete/ Industrial Saws	1	8
				Rubber Tired Dozers	1	1
				Tractors/ Loaders/ Backhoes	1	6
Site preparation	6	2	46	Graders	1	8
				Tractors/ Loaders/ Backhoes	1	8
Grading	8	2	450	Concrete/ Industrial Saws	1	8
				Rubber Tired Dozers	1	1
				Tractors/ Loaders/ Backhoes	1	6
Trenching	6	2	0	Tractors/ Loaders/ Backhoes	2	6
Building construction	16	2	0	Cranes	1	4
				Forklifts	1	6
				Tractors/ Loaders/ Backhoes	1	8
Paving	10	2	0	Cement and Mortar Mixers	1	6
				Pavers	1	7
				Rollers	1	7
				Tractors/ Loaders/ Backhoes	1	7
Architectural coatings	2	2	0	Air Compressors	1	6
Marque Sign						
Marque sign construction	10	2	0	Cranes	1	4
				Tractors/ Loaders/ Backhoes	2	8

Notes: See Attachment A for details.

Operations

Operation of the project would produce volatile organic compounds (VOCs), oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), coarse particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$) emissions associated with area sources (consumer products, architectural coatings, landscaping equipment) and energy sources (natural gas, appliances, and space and water heating). No additional vehicle trips are anticipated from operation of the proposed project. Notably, energy use factors for the buildings were adjusted based on 2019 Title 24 energy standard compliance. All other emissions from the operation of the proposed project were estimated using the default CalEEMod values based on the specific land use categories.

2.3 Impact Analysis

Threshold AQ-1

Would the project conflict with or obstruct implementation of the applicable air quality plan?

The SDAPCD is responsible for developing and implementing the clean air plans for attainment and maintenance of the ambient air quality standards in the basin—specifically, the State Implementation Plan (SIP) and Regional Air Quality Strategy (RAQS).[1] San Diego Association of Governments (SANDAG) is responsible for developing forecasts and data that are used by SDAPCD in preparing the SIP and RAQS. The federal ozone (O_3) maintenance plan, which is part of the SIP, was adopted in 2012. The SIP includes a demonstration that current strategies and tactics will maintain acceptable air quality in the basin based on the National Ambient Air Quality Standards (NAAQS). The RAQS, most recently updated in 2016, outlines SDAPCD's plans and control measures designed to attain the state air quality standards for O_3. The SIP and RAQS rely on information from California Air Resources Board (CARB) and SANDAG, including mobile and area source emissions as well as information regarding projected growth in the County of San Diego (County) as a whole and the cities in the County, to project future emissions and determine the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the County and the cities in the County as part of the development of their general plans.

The proposed project would not conflict with the existing zoning and land use designations for the site, nor would the proposed project induce population growth to the area. Per CEQA Guideline Section 15206(b), the proposed project would not be considered regionally significant because it would not have the potential to substantially affect housing, employment, or population projections within the San Diego region, which are the basis of the RAQS projections. As such, the proposed project would not conflict with or obstruct implementation of the RAQS. Furthermore, the proposed project would not result in substantial construction or operational emissions that would conflict with the local Air Quality plan.

[1] For the purpose of this discussion, the relevant federal air quality plan is the Ozone Maintenance Plan (SDAPCD 2012). The RAQS is the applicable plan for purposes of State air quality planning. Both plans reflect growth projections in the basin.

Therefore, implementation of the proposed project would not conflict with the RAQS or SIP and proposed development would be consistent with the growth in the region. Impacts would be **less than significant**

Threshold AQ-2

Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Past, present, and future development projects may contribute to SDAB adverse air quality impacts on a cumulative basis. By its nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and SDAPCD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are used in the determination of whether a project's individual emissions would have a cumulatively considerable contribution on air quality. If a project's emissions would exceed the applied significance thresholds, it would have a cumulatively considerable contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.

Construction and operation of the proposed project would result in emissions of criteria air pollutants, which may result in a cumulatively considerable net increase in emissions of criteria air pollutants for which the SDAB is designated as nonattainment under the NAAQS or California Ambient Air Quality Standards (CAAQS). The SDAB has been designated as a federal nonattainment area for O_3 and a state nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. The following discussion quantitatively evaluates potential short-term construction and long-term operational impacts that would result from implementation of the proposed project.

Construction Emissions

Proposed construction activities would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and VOC off-gassing from architectural coatings and asphalt pavement application) and off-site sources (i.e., on-road haul trucks, delivery trucks, and worker vehicle trips). Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions. Therefore, such emissions levels can only be estimated, with a corresponding uncertainty in precise ambient air quality impacts.

NO_x and CO emissions would primarily result from the use of construction equipment and motor vehicles. Fugitive dust (PM_{10} and $PM_{2.5}$) emissions would primarily result from grading and site preparation activities. The proposed project would be required to comply with SDAPCD Rule 55, Fugitive Dust Control. This rule requires that the proposed project take steps to restrict visible emissions of fugitive dust beyond the property line. Compliance with Rule 55 would limit fugitive dust (PM_{10} and $PM_{2.5}$) generated during grading and construction activities. To account for dust control measures in the calculations, it was assumed that the proposed project would ensure that active sites be watered at least two times daily. The application of architectural coatings, such as exterior application/interior paint and other finishes, and application of asphalt pavement would also produce VOC emissions; however, the contractor is required to procure architectural coatings from a supplier in compliance with the requirements of SDAPCD Rule 67.0.1, Architectural Coatings. and limit the amount of VOC emissions from cutback asphalt in compliance with the requirements of SDAPCD's Rule 67.7, Cutback and Emulsified Asphalt.

Construction emissions were calculated for the estimated worst-case day over the construction period associated with each phase and reported as the maximum daily emissions. Construction schedule assumptions, including phase type, duration, and sequencing, were based on information provided by SUHSD and is intended to represent a reasonable scenario based on the best information available. Default values provided in CalEEMod were used where detailed project information was not available.

Table 4 presents the estimated maximum daily construction emissions generated during construction of the proposed project. Details of the emission calculations are provided in Attachment A.

Table 4. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	pounds per day					
2021	1.18	22.68	10.17	0.06	2.12	0.90
2022	3.42	5.66	6.64	0.01	0.36	0.27
Maximum	**3.42**	**22.68**	**10.17**	**0.06**	**2.12**	**0.90**
SDACPD Threshold	*137*	*250*	*550*	*250*	*100*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SDAPCD = San Diego Air Pollution Control District.
The values shown are the maximum summer or winter daily emissions results from CalEEMod and provided in Attachment A. The maximum emissions assumes compliance with SDAPCD Rule 67.0.1, Architectural Coatings and SDAPCD Rule 55, Fugitive Dust Control.

As shown in Table 4, maximum daily construction emissions would be minimal and would not exceed the significance thresholds for any criteria air pollutants.

Operational Emissions

Following the completion of construction activities, the proposed project would generate criteria air pollutant emissions from area sources (i.e., the use of landscaping equipment, consumer products, architectural coatings) and energy sources (i.e., natural gas usage). No additional vehicular trips are anticipated for long-term operations. Pollutant emissions associated with long-term operations were quantified using CalEEMod using a combination of project-specific information provided by SUHSD and CalEEMod default values. Table 5 presents the maximum daily area and energy source emissions associated with proposed project operation (year 2022). Details of the emission calculations are provided in Attachment A.

Table 5. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions

Category	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	pounds per day					
Area	0.13	<0.01	<0.01	0.00	<0.01	<0.01
Energy	<0.01	0.01	0.01	<0.01	<0.01	<0.01

Table 5. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions

Category	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	pounds per day					
Total	**0.13**	**0.01**	**0.01**	**<0.01**	**<0.01**	**<0.01**
Threshold	*137*	*250*	*550*	*250*	*100*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter.
See Attachment A for complete results. "<0.01" means that emissions would be less than 0.01 pounds per day.
The values shown are the maximum summer or winter daily emissions results from California Emissions Estimator Model.

As shown in Table 5, maximum daily operational emissions would be minimal and would not exceed the significance thresholds for any criteria air pollutants.

The SDAB has been designated as a federal nonattainment area for O_3 and a state nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. The nonattainment status is the result of cumulative emissions from various sources of air pollutants and their precursors within the SDAB, including motor vehicles, off-road equipment, and commercial and industrial facilities. Construction and operation of the proposed project would generate VOC and NO_x emissions (which are precursors to O_3) and emissions of PM_{10} and $PM_{2.5}$. However, as indicated in Tables 4 and 5, proposed project-generated construction and operational emissions would not exceed the emission-based significance thresholds for VOC, NO_x, PM_{10}, or $PM_{2.5}$.

Cumulative localized impacts would potentially occur if a construction project were to occur concurrently with another off-site project. Construction schedules for potential future projects near the proposed project area are currently unknown; therefore, potential construction impacts associated with two or more simultaneous projects would be considered speculative. However, future projects would be subject to CEQA and would require air quality analysis and, where necessary, mitigation if the project would exceed applied thresholds. Criteria air pollutant emissions associated with construction activity of future projects would be reduced through implementation of control measures required by the SDAPCD. For example, cumulative PM_{10} and $PM_{2.5}$ emissions would be reduced because all future projects would be subject to SDAPCD Rule 55 (Fugitive Dust), which sets forth general and specific requirements for all construction sites in the SDAB. In addition, cumulative VOC emissions would be subject to SDAPCD Rule 67.0.1 (Architectural Coatings).

Based on the proposed project-generated construction and operational emissions of VOC, NO_x, PM_{10}, and $PM_{2.5}$ the proposed project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants. Therefore, the proposed project's cumulative air quality impact would be **less than significant**.

Threshold AQ-3

Would the project expose sensitive receptors to substantial pollutant concentrations?

Health Impacts of Carbon Monoxide

If traffic occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles "cold-started" and operating at pollution-inefficient speeds, and is operating on roadways already crowded with traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of congested traffic. However, since the proposed project is not anticipated to increase vehicular trips during operations, it would not result in additional mobile sources on the roadway network. Therefore, the proposed project would not result in a CO hotspot and would result in a **less than significant** impact.

Health Impacts of Toxic Air Contaminants

In addition to impacts from criteria pollutants, project impacts may include emissions of pollutants identified by the state and federal government as toxic air contaminants (TACs) or hazardous air pollutants. State law has established the framework for California's TAC identification and control program, which is generally more stringent than the federal program and aimed at TACs that are a problem in California. The state has formally identified more than 200 substances as TACs, including the federal hazardous air pollutants, and is adopting appropriate control measures for sources of these TACs. The greatest potential for TAC emissions during construction would be diesel particulate matter (DPM) emissions from heavy equipment operations and heavy-duty trucks and the associated health impacts to sensitive receptors. The following measures are required by state law to reduce DPM emissions:

- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-use Off-road Diesel Vehicles (13 CCR 2449), the purpose of which is to reduce DPM and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.
- All commercial diesel vehicles are subject to Title 13, Section 2485 of the California Code of Regulations, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to five minutes; electric auxiliary power units should be used whenever possible.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The SDAPCD recommends an incremental cancer risk threshold of 10 in a million. "Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period will contract cancer based on the use of standard Office of Environmental Health Hazard Assessment risk-assessment methodology. The proposed project would not require the extensive operation of heavy-duty construction equipment, which is subject to a CARB Airborne Toxics Control Measure for in-use diesel construction equipment to reduce diesel particulate emissions and would not involve extensive use of diesel trucks, which are also subject to a CARB Airborne Toxics Control Measure.

As shown in Table 4, maximum daily particulate matter (i.e., PM_{10} or $PM_{2.5}$) emissions generated by construction equipment operation and haul-truck trips during construction (exhaust particulate matter, or DPM), combined with fugitive dust generated by equipment operation and vehicle travel, would be well below the significance thresholds. Moreover, total construction of the proposed project would last approximately 6 months, after which proposed project-related TAC emissions would cease. Thus, the proposed project would not result in a long-term source of TAC emissions. No residual TAC emissions and corresponding cancer risk are anticipated after construction, and no long-term sources

of TAC emissions are anticipated during operation of the proposed project. Therefore, the exposure of proposed project-related TAC emission impacts to sensitive receptors would be **less than significant**.

Valley Fever

Coccidioidomycosis, more commonly known as "Valley Fever," is an infection caused by inhalation of the spores of the *Coccidioides immitis* fungus, which grows in the soils of the southwestern United States. When fungal spores are present, any activity that disturbs the soil, such as digging, grading, or other earth-moving operations, can cause the spores to become airborne and thereby increase the risk of exposure. The ecologic factors that appear to be most conducive to survival and replication of the spores are high summer temperatures, mild winters, sparse rainfall, and alkaline sandy soils.

Valley Fever is not considered highly endemic to San Diego. Per the San Diego County Health and Human Services Agency, the 10-year average (2008–2017) for Coccidioidomycosis cases in the County of San Diego is 4.5 cases per 100,000 people per year. Statewide incidences in 2016 were 13.7 per 100,000 people (CDPH 2017). Thus, the average incidence rate within the County is below the statewide average. Furthermore, construction of the proposed project would comply with SDAPCD Rule 55, Fugitive Dust Control, which limits the amount of fugitive dust generated during construction. SDAPCD Rule 55 is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. Based on the low incidence rate of coccidioidomycosis in the County, and with the proposed project's implementation of dust control strategies, it is not anticipated that earth-moving activities during proposed project construction would result in exposure sensitive receptors to Valley Fever. Therefore, the proposed project would have a **less than significant** impact with respect to Valley Fever exposure.

Threshold AQ-4

Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Odors would be generated from vehicles and/or equipment exhaust emissions during construction of the proposed project. Odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt paving. Such odors would disperse rapidly from the proposed project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be considered less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project would not engage in any of these activities or proposing any of these land uses. Therefore, the proposed project during operation would result in an odor impact that is **less than significant**.

3 Greenhouse Gas Emissions Assessment

3.1 Thresholds of Significance

The significance criteria used to evaluate the proposed project's GHG emissions impacts is based on the recommendations provided in Appendix G of the CEQA Guidelines. For the purposes of this GHG emissions analysis, the proposed project would have a significant environmental impact if it would (14 CCR 15000 et seq.):

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. There are currently no established thresholds for assessing whether the GHG emissions of a project, such as the proposed project, would be considered a cumulatively considerable contribution to global climate change; however, all reasonable efforts should be made to minimize a project's contribution to global climate change. In addition, while GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008), GHG emissions impacts must also be evaluated on a project-level under CEQA.

The CEQA Guidelines do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009). The State of California has not adopted emission-based thresholds for GHG emissions under CEQA. The Governor's Office of Planning and Research's Technical Advisory, titled "Discussion Draft CEQA and Climate Change Advisory," states that

> *"Neither the CEQA statute nor the CEQA Guidelines prescribe thresholds of significance or particular methodologies for perming an impact analysis. This is left to lead agency judgment and discretion, based upon factual data and guidance from regulatory agencies and other sources where available and applicable. Even in the absence of clearly defined thresholds for GHG emissions, such emissions must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact." (OPR 2018)*

Furthermore, the advisory document indicates that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice." Section 15064.7(c) of the CEQA Guidelines specifies that "when adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

Amendments to Section 15064.4 of the CEQA Guidelines were adopted to assist lead agencies in determining the significance of the impacts of GHG emissions. Section 15064.4 specifies that a lead agency "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." Section 15064.4 also provides lead agencies with the discretion to determine whether to assess those emissions quantitatively or to rely on a qualitative analysis or performance-based standards. In addition, the CEQA Guidelines specify that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7[c]).

In the absence of a locally adopted numeric threshold by the SUHSD or other regional experts and agencies (e.g., SDAPCD, City of San Diego, or County of San Diego), the proposed project is be evaluated according to CEQA Guidelines Section 15064.7(c) by considering whether a project's GHG emissions meet the California Air Pollution Control Officers Association (CAPCOA) 900 metric tons (MT) carbon dioxide equivalent (CO_2e) per year screening level threshold. The screening level threshold was developed based on various land use densities and future discretionary project types to determine the size of projects that would likely have a less than cumulatively considerable contribution to climate change.

The CAPCOA threshold was developed to ensure capture of 90 percent or more of likely future discretionary developments. The objective was to set the emissions threshold low enough to capture a substantial fraction of future development while setting the emission threshold high enough to exclude small development projects that would contribute a relatively small fraction of cumulative statewide GHG emissions.

CAPCOA's 900 MT CO_2e per year threshold was developed to meet Assembly Bill (AB) 32 State target of reducing emissions to 1990 levels by year 2020. Since adoption of this threshold, Senate Bill (SB) 32 was passed to set a revised statewide reduction target to reduce emissions to 40 percent below 1990 levels by year 2030. Though the CAPCOA threshold does not consider the reduction targets set by SB 32, the CAPCOA threshold was developed with an aggressive project-level GHG emission capture rate of 90 percent.

The CAPCOA threshold of 900 MT CO_2e represents a more stringent screening level than has been approved by other air districts in compliance with 2030 statewide reduction targets.[2] Due to the aggressive GHG emission capture rate, the CAPCOA threshold would still act as a viable threshold to reduce project GHG emissions proposed after 2020 and meet SB 32 targets. Furthermore, as State legislative requirements such as Building Energy Efficiency Standards and transportation-related efficiency measures become increasingly more stringent overtime, future project GHG emissions would be reduced helping to meet State emission reduction targets. Projects that would generate emissions beyond the 900 MT CO_2e per year screening level threshold would be required to implement feasible on-site mitigation measures to reduce their impacts on climate change. Projects that meet or

[2] As a comparison to the CAPCOA threshold, other regional air districts such as the Sacramento Metropolitan Air Quality Management District (SMAQMD) have updated their GHG emission significance thresholds to ensure future proposed projects help meet the State's 2030 emission reduction target and do not result in a cumulative impact to climate change. In April 2020 the SMAQMD published updated project screening levels and determined that project's estimated to generate less than 1,100 MT CO_2e per year would not result in a significant cumulative impact. This threshold was developed to demonstrate compliance with the statewide reduction targets in 2030 and the screening-level threshold was determined by SMAQMD to capture 98 percent of total GHG emissions (SMAQMD 2020).

fall below CAPCOA's screening level threshold are expected to result in 900 MT CO_2e per year of GHG emissions or less and would not require additional analysis. Therefore, this assessment utilizes the 900 MT CO_2e per year screening threshold to evaluate whether the proposed project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

3.2 Approach and Methodology

Construction

CalEEMod Version 2016.3.2 was used to estimate proposed project-generated GHG emissions during construction. Construction of the proposed project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 2.2 above are also applicable for the estimation of construction-related GHG emissions. As such, see Section 2.2 for a discussion of construction emissions calculation methodology and assumptions used in the GHG emissions analysis.

Operations

Operation of the project would generate GHG emissions through landscape maintenance equipment operation; energy use (natural gas and generation of electricity consumed by the project, including the new marque sign); solid waste disposal; and generation of electricity associated with water supply, treatment, and distribution and wastewater treatment. No additional vehicle trips are anticipated from operation of the proposed project. Notably, energy use factors for the buildings were adjusted based on 2019 Title 24 energy standard compliance. All other emissions from the operation of the proposed project were estimated using the default CalEEMod values based on the specific land use categories.

3.3 Impact Analysis

Threshold GHG-1

Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction Emissions

Construction of the proposed project would result in GHG emissions, which are primarily associated with the use of off-road construction equipment, haul trucks, on-road vendor trucks, and worker vehicles. CalEEMod was used to calculate the annual GHG emissions based on the construction scenario described in Section 2.2. On-site sources of GHG emissions include off-road equipment and off-site sources including haul trucks, vendor trucks and worker vehicles. Table 6 presents construction emissions for the proposed project from on-site and off-site emission sources.

Table 6. Estimated Annual Construction GHG Emissions

Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons			
2021	70.07	0.01	0.00	70.43
2022	13.21	<0.01	0.00	13.29
			Total	83.73
			30-Year Amortized Construction Emissions	**2.79**

Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.
See Attachment A for complete results.

As shown in Table 6, the estimated total GHG emissions during construction of would be approximately 84 MT CO_2e over the construction period. Estimated proposed project-generated construction emissions amortized over 30 years would be approximately 3 MT CO_2e per year. As with proposed project-generated construction criteria air pollutant emissions, GHG emissions generated during construction of the proposed project would be short-term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions.

Operational Emissions

Operation of the proposed project would generate GHG emissions through landscape maintenance equipment operation; energy use (natural gas and generation of electricity consumed by the proposed project, including to power the new marque sign); solid waste disposal; and generation of electricity associated with water supply, treatment, and distribution and wastewater treatment. No additional vehicle trips are anticipated to be generated by the proposed project operations. CalEEMod was used to calculate the annual GHG emissions for the majority of sources. GHGs associated with electricity generated for operation of the marque sign were estimated with a spreadsheet model. The estimated operational proposed project-generated GHG emissions are included in Attachment A and summarized below in Table 7.

Table 7. Estimated Annual Total GHG Emissions

Source	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
Area	<0.01	0.00	0.00	<0.01
Energy[a]	9.03	<0.01	<0.01	9.07
Waste	1.39	0.08	0.00	3.45
Water	1.54	0.01	<0.01	1.73
			Annual Operational Total	*14.24*
			30-Year Amortized Construction Emissions	*2.79*
			Total	**17.04**

Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.
See Attachment A for complete results. "<0.01" means that emissions would be less than 0.01 pounds per day.

a GHGs associated with electricity consumption of the marque sign were estimated with a spreadsheet model and summed with the CalEEMod energy GHGs and included in these "Energy" values.

As shown in Table 7, estimated annual proposed project-generated GHG emissions would be approximately 17 MT CO_2e per year as a result of project operations and amortized construction. This increase in emissions would be minimal and less than the screening level threshold of 900 MT CO_2e per year. Therefore, the proposed project would have a **less than significant** impact.

Threshold GHG-2

Would the project generate conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

City of San Diego Climate Action Plan

The City of San Diego adopted a Climate Action Plan (CAP) that quantifies GHG emissions, establishes Citywide reduction targets for 2020 and 2035, identifies strategies and measures to reduce GHG levels, and provides guidance for monitoring progress on an annual basis (City of San Diego 2015). The CAP identifies a comprehensive set of goals, policies, and actions that the City can use to reduce GHG emissions. The CAP includes five strategies: (1) water- and energy-efficient buildings; (2) clean and renewable energy; (3) bicycling, walking, transit, and land use; (4) zero waste; and (5) climate resiliency. Notably, the proposed project would be consistent with existing land use designations for the site and would not result in an increase in vehicle trips. Further, the proposed project would include water-and energy-efficient buildings, including the new JROTC building that replaces the older, less energy efficient portables. As such, the proposed project would not conflict with the goals of the City CAP.

Consistency with SANDAG's RTP/SCS

At the regional level, SANDAG's Regional Transportation Plan (RTP)/ Sustainable Communities Strategy (SCS) has been adopted for the purpose of reducing GHG emissions attributable to passenger vehicles in the San Diego region. In October 2015, SANDAG adopted its Regional Plan, which meets CARB's 2020 and 2035 reduction targets for the region (SANDAG 2015). While the RTP/SCS does not regulate land use or supersede the exercise of land use authority by SANDAG's member jurisdictions (i.e., the City), the RTP/SCS is a relevant regional reference document for purposes of evaluating the intersection of land use and transportation patterns and the corresponding GHG emissions. The RTP/SCS is not directly applicable to the proposed project because the underlying purpose of the RTP/SCS is to provide direction and guidance on future regional growth (i.e., the location of new residential and non-residential land uses) and transportation patterns throughout the City and greater San Diego County, as stipulated under SB 375. As previously discussed, the proposed project would be consistent with existing land use designations for the site and would not result in an increase in vehicle trips. Thus, the proposed project would be consistent with SANDAG's Regional Plan.

Scoping Plan Consistency

The CARB Scoping Plan, approved by CARB in 2008 and updated in 2014 and 2017, provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. As such, the Scoping Plan is not directly applicable to specific projects. Relatedly,

in the Final Statement of Reasons for the Amendments to the CEQA Guidelines, the California Natural Resources Agency (CNRA) observed that "[t]he [Scoping Plan] may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009). Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-global warming potential GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., low-carbon fuel standard), among others. The proposed project would comply with all applicable regulations adopted in furtherance of the Scoping Plan to the extent required by law.

The project would also not impede the attainment of the GHG reduction goals for 2030 or 2050 identified in SB 32 and Executive Order (EO) S-3-05, respectively. EO S-3-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050. SB 32 establishes for a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by December 31, 2030. In addition, since the specific path to compliance for the state in regard to the long-term goals will likely require development of technology or other changes that are not currently known or available, specific additional mitigation measures for the project would be speculative and cannot be identified at this time. With respect to future GHG targets under SB 32 and EO S-3-05, CARB has also made clear its legal interpretation that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020, to meet SB 32's 40% reduction target by 2030 and EO S-3-05's 80% reduction target by 2050; this legal interpretation by an expert agency provides evidence that future regulations will be adopted to continue the state on its trajectory toward meeting these future GHG targets.

Based on the preceding considerations, and based on the minimal GHG emissions generated by the proposed project as discussed under Threshold GHG-1, the proposed project would not conflict with any plans adopted with the purpose of reducing GHG emissions; therefore, the proposed project's impacts on GHG emissions would be **less than significant**.

4 Energy Assessment

4.1 Thresholds of Significance

The significance criteria used to evaluate the proposed project impacts to energy are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to energy would occur if the proposed project would:

1. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during proposed project construction or operation.
2. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

4.2 Approach and Methodology

Construction

The primary energy consumed during construction would be associated with petroleum usage. Potential impacts were assessed for off-road equipment and on-road vehicle trips during construction, as provided by the CalEEMod outputs (see Attachment A). Fuel consumption from construction equipment and vehicle trips was estimated by converting the total carbon dioxide (CO_2) emissions anticipated to be generated by the construction of the proposed project to gallons using conversion factors for CO_2 to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per metric ton (MT) CO_2 per gallon, and the conversion factor for diesel is 10.21 kilograms per MT CO_2 per gallon (The Climate Registry 2020). Heavy-duty construction equipment associated with construction activities, vendor trucks, and haul trucks are assumed to use diesel fuel. Worker vehicles are assumed to be gasoline fueled. All details for construction criteria air pollutant emissions modeling discussed in Section 2.2 above are also applicable for the estimation of construction-related energy consumption.

Operations

Electricity. The operational phase would require electricity for multiple purposes including building heating and cooling, lighting, appliances, electronics, powering the marque sign, and for water and wastewater treatment and conveyance. The estimation of operational building energy and water and wastewater was based on the CalEEMod assumptions for the high school land use, adjusted for compliance with 2019 Title 24 standards.

Natural Gas. Natural gas consumption during operation would be required building heating and cooling. For building consumption, natural gas generation rates in CalEEMod for the proposed project land use and climate zone were used, which were adjusted for compliance with 2019 Title 24 standards.

Petroleum. No additional vehicles are anticipated from operation of the proposed project. Therefore, there wouldn't be an increase in petroleum consumption.

4.3 Impact Analysis

Threshold ENE-1

Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Construction

Electricity. Temporary electric power for as-necessary lighting and electronic equipment would be provided by San Diego Gas and Electric (SDG&E). The amount of electricity used during construction would be minimal because typical demand would be generated by electrically powered hand tools. The electricity used for construction activities would be temporary and minimal; therefore, proposed project construction would not result in wasteful, inefficient, or unnecessary consumption of electricity.

Natural Gas. Natural gas is not anticipated to be required during construction of the proposed project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed below. Any minor amounts of natural gas that may be consumed as a result of proposed project construction would be temporary and negligible and would not have an adverse effect; therefore, proposed project construction would not result in wasteful, inefficient, or unnecessary consumption of natural gas.

Petroleum. Heavy-duty equipment associated with construction would rely on diesel fuel, as would vendor trucks involved in delivery of materials to the project site and haul trucks. Construction workers would travel to and from the project sites throughout the duration of construction. It is assumed in this analysis that construction workers would travel in gasoline-powered light-duty vehicles. Attachment A lists the assumed equipment usage and vehicle trips for construction of each phase of the proposed project development.

The estimated diesel fuel usage from construction equipment, haul trucks, and vendor trucks, as well as estimated gasoline fuel usage from worker vehicles is shown in Table 8.

Table 8. Proposed Project Construction Petroleum Demand

Phase	Off-Road Equipment (diesel)	Haul Trucks (diesel)	Vendor Trucks (diesel)	Worker Vehicles
	gallons			
Construction	5,043.42	2,014.08	416.46	794.87
			Total Petroleum Consumed	**8,268.84**

Notes: See Attachment A for details.

As shown in Table 8, the proposed project is estimated to consume approximately 8,269 gallons of petroleum during the construction phase. Notably, the proposed project will be subject to CARB's In-Use Off-Road Diesel Vehicle Regulation that applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation: (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles, (2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled, (3) restricts the adding of older vehicles into fleets starting on January 1, 2014, and (4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). The fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the Best Achievable Control Technology (BACT) requirements. Overall, because the proposed project would not be unusual as compared to overall local and regional demand for energy resources and would not involve characteristics that require equipment that would be less energy-efficient than at comparable construction sites in the region or state, the proposed project construction would not result in wasteful, inefficient, or unnecessary consumption of petroleum.

Operations

Electricity. Based on the CalEEMod results and information provided by the SUHSD, the proposed project is anticipated to require approximately 44,308 kilowatt hours per year for proposed project operations, including for building energy, water/wastewater conveyance, and the new marque sign. The additional electricity demand for the proposed project would not be unusual or wasteful as compared to overall local and regional demand for energy resources. Therefore, proposed project operations would not result in wasteful, inefficient, or unnecessary consumption of electricity.

Natural Gas. Natural gas consumption for operation of the proposed project would be approximately 28,195 kilo-British thermal units per year. The additional natural gas demand for the proposed project would not be unusual or wasteful as compared to overall local and regional demand for energy resources. Therefore, proposed project operations would not result in wasteful, inefficient, or unnecessary consumption of natural gas.

Petroleum. No additional petroleum would be required during proposed project operations.

Overall, based on all of the above considerations, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation and would have **less than significant** energy-related impacts.

Threshold ENE-2

Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Title 24 of the California Code of Regulations contains energy efficiency standards for residential and non-residential buildings based on a state mandate to reduce California's energy demand. Specifically, Title 24 addresses a number of energy efficiency measures that impact energy used for lighting, water heating, heating, and air conditioning, including the energy impact of the building envelope such as windows, doors, wall/floor/ceiling assemblies, and roofs.

Part 6 of Title 24 specifically establishes energy efficiency standards for residential and non-residential buildings constructed in the State of California in order to reduce energy demand and consumption. Part 11 of Title 24 also includes the CALGreen standards, which established mandatory minimum environmental performance standards for new construction projects. The proposed project would comply with Title 24, Part 6 and Part 11, per state regulations.

Based on the foregoing, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency; therefore, impacts during construction and operation of the proposed project would be **less than significant**.

5 References Cited

CAPCOA (California Air Pollution Control Officers Association). 2008. *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*. January 2008.

CDPH (California Department of Public Health). 2017. *Epidemiologic Summary of Coccidioidomycosis in California, 2017*. https://www.cdc.gov/mmwr/volumes/69/wr/pdfs/mm6942a2-H.pdf.

City of San Diego. 2015. *City of San Diego Climate Action Plan*. Adopted December 2015. https://www.sandiego.gov/sites/default/files/final_july_2016_cap.pdf

CNRA (California Natural Resources Agency). 2009. *Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB 97*. December 2009.

OPR (Governor's Office of Planning and Research). 2018. *Discussion Draft CEQA and Climate Change Advisory.* Accessed March 2019. http://opr.ca.gov/docs/20181228-Discussion_Draft_Climate_Change_Adivsory.pdf.

SANDAG (San Diego Association of Governments). 2015. *San Diego Forward: The Regional Plan*. October 2015. Accessed April 2017. http://www.sdforward.com/pdfs/RP_final/The%20Plan%20-%20combined.pdf.

SDAPCD (San Diego Air Pollution Control District). 2012. *Redesignation Request and Maintenance Plan for the 1997 National Ozone Standard for San Diego County. https://www.sdapcd.org/content/dam/sdc/apcd/PDF/Air%20Quality%20Planning/8_Hour_O3_Maint-Plan.pdf*

SDAPCD. 2020a. SDAPCD Regulation II: Permits; Rule 20.2: New Source Review—Non-major Stationary Sources. Revised June 26, 2019; effective October 16, 2020. https://www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Permits/APCD_R20.2.pdf.

SDAPCD. 2020b. SDAPCD Regulation II: Permits; Rule 20.3: New Source Review—Major Stationary Sources and PSD Stationary Sources. Revised June 2019; effective October 16, 2020. https://www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Permits/APCD_R20.3.pdf.

SMAQMD (Sacramento Metropolitan Air Quality Management District). 2020. Greenhouse Gas Thresholds for Sacramento County. Accessed August 2020. http://www.airquality.org/LandUseTransportation/Documents/SMAQMDGHGThresholds2020-03-04v2.pdf.

The Climate Registry. 2020. *2020 Default Emission Factor Document.* April 2020. https://www.theclimateregistry.org/wp-content/uploads/2020/04/The-Climate-Registry-2020-Default-Emission-Factor-Document.pdf

Attachment A

CalEEMod Output File

San Ysidro High School ROTC and Improvements Project

San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	5.28	1000sqft	0.50	5,280.00	0
Parking Lot	16.30	1000sqft	0.37	16,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	448.3	**CH4 Intensity (lb/MWhr)**	0.018	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted SDGE GHG intensity factors based on 44% RPS, which SDGE achieved in 2017

Land Use - New ROTC buildings/facilities and associated parking

Construction Phase - Construction phases and durations based on applicant input

Off-road Equipment - Default

Off-road Equipment - Default

Off-road Equipment - Equipment assumptions based on applicant input

Off-road Equipment - Anticipated equipment for marquee sign

Off-road Equipment - Equipment assumptions based on applicant input

Off-road Equipment - Equipment assumptions based on applicant input

Off-road Equipment - Equipment assumptions based on applicant input

Off-road Equipment - Equipment assumptions based on applicant input

Off-road Equipment - Equipment assumptions based on applicant input

Trips and VMT - Based on input from the applicant and CalEEMod defaults

On-road Fugitive Dust - Default

Demolition - JROTC demo based on project description.

Grading - 3,150 CY fill imported for JROTC

Architectural Coating - Interior/exterior coating g/L based on SDAPCD rule 67.0.1 limits for flat and non-flat coatings

Vehicle Trips - No new trips anticipated

Consumer Products - Default

Area Coating - Interior/exterior coating g/L based on SDAPCD rule 67.0.1 limits for flat and non-flat coatings

Landscape Equipment - Default

Energy Use - Revised per 2019 Title 24

Water And Wastewater - Default

Solid Waste - Default

Construction Off-road Equipment Mitigation - Water 2x per day consistent with SDAPCD Rule 55

San Ysidro High School ROTC and Improvements Project - San Diego County, Summer

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	1.00	5.00
tblConstructionPhase	NumDays	2.00	7.00
tblConstructionPhase	NumDays	100.00	96.00
tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	NumDays	100.00	10.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	T24E	1.52	1.36
tblEnergyUse	T24NG	5.44	4.86
tblGrading	AcresOfGrading	0.00	2.50
tblGrading	MaterialImported	0.00	3,150.00
tblLandUse	LotAcreage	0.12	0.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	720.49	448.3
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblTripsAndVMT	HaulingTripNumber	0.00	46.00
tblTripsAndVMT	HaulingTripNumber	394.00	450.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	4.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	4.00	2.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	9.00	16.00
tblTripsAndVMT	WorkerTripNumber	9.00	10.00
tblVehicleTrips	ST_TR	4.37	0.00
tblVehicleTrips	SU_TR	1.79	0.00
tblVehicleTrips	WD_TR	12.89	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.1670	22.5313	10.1694	0.0604	2.3973	0.3747	2.7720	0.7934	0.3604	1.1538	0.0000	6,481.7005	6,481.7005	0.6271	0.0000	6,497.3782
2022	3.4195	5.6564	6.6366	0.0110	0.0957	0.2680	0.3637	0.0257	0.2466	0.2723	0.0000	1,058.3416	1,058.3416	0.2961	0.0000	1,065.7439
Maximum	**3.4195**	**22.5313**	**10.1694**	**0.0604**	**2.3973**	**0.3747**	**2.7720**	**0.7934**	**0.3604**	**1.1538**	**0.0000**	**6,481.7005**	**6,481.7005**	**0.6271**	**0.0000**	**6,497.3782**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.1670	22.5313	10.1694	0.0604	1.7402	0.3747	2.1149	0.5381	0.3604	0.8985	0.0000	6,481.7005	6,481.7005	0.6271	0.0000	6,497.3782
2022	3.4195	5.6564	6.6366	0.0110	0.0957	0.2680	0.3637	0.0257	0.2466	0.2723	0.0000	1,058.3416	1,058.3416	0.2961	0.0000	1,065.7439
Maximum	**3.4195**	**22.5313**	**10.1694**	**0.0604**	**1.7402**	**0.3747**	**2.1149**	**0.5381**	**0.3604**	**0.8985**	**0.0000**	**6,481.7005**	**6,481.7005**	**0.6271**	**0.0000**	**6,497.3782**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**26.36**	**0.00**	**20.96**	**31.17**	**0.00**	**17.90**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1321	2.0000e-005	2.2100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7200e-003	4.7200e-003	1.0000e-005		5.0300e-003
Energy	8.3000e-004	7.5700e-003	6.3600e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004		9.0879	9.0879	1.7000e-004	1.7000e-004	9.1419
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1330**	**7.5900e-003**	**8.5700e-003**	**5.0000e-005**	**0.0000**	**5.9000e-004**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**5.9000e-004**		**9.0926**	**9.0926**	**1.8000e-004**	**1.7000e-004**	**9.1469**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1321	2.0000e-005	2.2100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7200e-003	4.7200e-003	1.0000e-005		5.0300e-003
Energy	8.3000e-004	7.5700e-003	6.3600e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004		9.0879	9.0879	1.7000e-004	1.7000e-004	9.1419
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1330**	**7.5900e-003**	**8.5700e-003**	**5.0000e-005**	**0.0000**	**5.9000e-004**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**5.9000e-004**		**9.0926**	**9.0926**	**1.8000e-004**	**1.7000e-004**	**9.1469**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/9/2021	8/13/2021	6	5	
2	Site Preparation	Site Preparation	8/14/2021	8/19/2021	6	5	
3	Grading	Grading	8/20/2021	8/27/2021	6	7	
4	Trenching	Trenching	8/28/2021	9/8/2021	6	10	
5	Building Construction - ROTC	Building Construction	9/9/2021	12/29/2021	6	96	
6	Construction - Marquee Sign	Building Construction	2/10/2022	2/23/2022	5	10	
7	Paving	Paving	12/30/2021	1/19/2022	5	15	
8	Architectural Coating	Architectural Coating	1/20/2022	2/9/2022	5	15	

Acres of Grading (Site Preparation Phase): 2.5

Acres of Grading (Grading Phase): 2.5

Acres of Paving: 0.37

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,920; Non-Residential Outdoor: 2,640; Striped Parking Area: 978 (Architectural Coating – sqft)

OffRoad Equipment

San Ysidro High School ROTC and Improvements Project - San Diego County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	0.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Graders	0	0.00	187	0.41
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Trenching	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction - ROTC	Cranes	1	4.00	231	0.29
Building Construction - ROTC	Forklifts	1	6.00	89	0.20
Building Construction - ROTC	Generator Sets	0	0.00	84	0.74
Building Construction - ROTC	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction - ROTC	Welders	0	0.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Paving Equipment	0	0.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Construction - Marquee Sign	Cranes	1	4.00	231	0.29
Construction - Marquee Sign	Forklifts	0	6.00	89	0.20
Construction - Marquee Sign	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	8.00	2.00	44.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	6.00	2.00	46.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	2.00	450.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	6.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - ROTC	3	16.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Construction - Marquee Sign	3	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9454	0.0000	1.9454	0.2946	0.0000	0.2946			0.0000			0.0000
Off-Road	0.6561	5.8312	5.8740	9.6500e-003		0.3235	0.3235		0.3115	0.3115		921.7587	921.7587	0.1409		925.2800
Total	**0.6561**	**5.8312**	**5.8740**	**9.6500e-003**	**1.9454**	**0.3235**	**2.2689**	**0.2946**	**0.3115**	**0.6061**		**921.7587**	**921.7587**	**0.1409**		**925.2800**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0653	2.2557	0.5519	6.7900e-003	0.1538	6.8800e-003	0.1607	0.0421	6.5800e-003	0.0487		744.1987	744.1987	0.0657		745.8421
Vendor	6.0500e-003	0.2037	0.0519	5.4000e-004	0.0135	4.3000e-004	0.0140	3.9000e-003	4.1000e-004	4.3100e-003		58.2704	58.2704	4.1600e-003		58.3745
Worker	0.0277	0.0180	0.2122	6.5000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		65.1553	65.1553	1.8600e-003		65.2018
Total	**0.0990**	**2.4774**	**0.8159**	**7.9800e-003**	**0.2330**	**7.7600e-003**	**0.2408**	**0.0635**	**7.4100e-003**	**0.0709**		**867.6243**	**867.6243**	**0.0718**		**869.4184**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8755	0.0000	0.8755	0.1326	0.0000	0.1326			0.0000			0.0000
Off-Road	0.6561	5.8312	5.8740	9.6500e-003		0.3235	0.3235		0.3115	0.3115	0.0000	921.7587	921.7587	0.1409		925.2800
Total	**0.6561**	**5.8312**	**5.8740**	**9.6500e-003**	**0.8755**	**0.3235**	**1.1990**	**0.1326**	**0.3115**	**0.4440**	**0.0000**	**921.7587**	**921.7587**	**0.1409**		**925.2800**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0653	2.2557	0.5519	6.7900e-003	0.1538	6.8800e-003	0.1607	0.0421	6.5800e-003	0.0487		744.1987	744.1987	0.0657		745.8421
Vendor	6.0500e-003	0.2037	0.0519	5.4000e-004	0.0135	4.3000e-004	0.0140	3.9000e-003	4.1000e-004	4.3100e-003		58.2704	58.2704	4.1600e-003		58.3745
Worker	0.0277	0.0180	0.2122	6.5000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		65.1553	65.1553	1.8600e-003		65.2018
Total	**0.0990**	**2.4774**	**0.8159**	**7.9800e-003**	**0.2330**	**7.7600e-003**	**0.2408**	**0.0635**	**7.4100e-003**	**0.0709**		**867.6243**	**867.6243**	**0.0718**		**869.4184**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755		942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.5303**	**0.2995**	**0.8297**	**0.0573**	**0.2755**	**0.3328**		**942.5842**	**942.5842**	**0.3049**		**950.2055**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0683	2.3583	0.5769	7.0900e-003	0.1608	7.2000e-003	0.1680	0.0441	6.8800e-003	0.0509		778.0259	778.0259	0.0687		779.7440
Vendor	6.0500e-003	0.2037	0.0519	5.4000e-004	0.0135	4.3000e-004	0.0140	3.9000e-003	4.1000e-004	4.3100e-003		58.2704	58.2704	4.1600e-003		58.3745
Worker	0.0208	0.0135	0.1591	4.9000e-004	0.0493	3.4000e-004	0.0496	0.0131	3.1000e-004	0.0134		48.8665	48.8665	1.3900e-003		48.9013
Total	**0.0951**	**2.5754**	**0.7880**	**8.1200e-003**	**0.2236**	**7.9700e-003**	**0.2316**	**0.0610**	**7.6000e-003**	**0.0686**		**885.1627**	**885.1627**	**0.0743**		**887.0198**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755	0.0000	942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.2386**	**0.2995**	**0.5381**	**0.0258**	**0.2755**	**0.3013**	**0.0000**	**942.5842**	**942.5842**	**0.3049**		**950.2055**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0683	2.3583	0.5769	7.0900e-003	0.1608	7.2000e-003	0.1680	0.0441	6.8800e-003	0.0509		778.0259	778.0259	0.0687		779.7440
Vendor	6.0500e-003	0.2037	0.0519	5.4000e-004	0.0135	4.3000e-004	0.0140	3.9000e-003	4.1000e-004	4.3100e-003		58.2704	58.2704	4.1600e-003		58.3745
Worker	0.0208	0.0135	0.1591	4.9000e-004	0.0493	3.4000e-004	0.0496	0.0131	3.1000e-004	0.0134		48.8665	48.8665	1.3900e-003		48.9013
Total	**0.0951**	**2.5754**	**0.7880**	**8.1200e-003**	**0.2236**	**7.9700e-003**	**0.2316**	**0.0610**	**7.6000e-003**	**0.0686**		**885.1627**	**885.1627**	**0.0743**		**887.0198**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.1947	0.0000	1.1947	0.4643	0.0000	0.4643			0.0000			0.0000
Off-Road	0.6561	5.8312	5.8740	9.6500e-003		0.3235	0.3235		0.3115	0.3115		921.7587	921.7587	0.1409		925.2800
Total	**0.6561**	**5.8312**	**5.8740**	**9.6500e-003**	**1.1947**	**0.3235**	**1.5182**	**0.4643**	**0.3115**	**0.7757**		**921.7587**	**921.7587**	**0.1409**		**925.2800**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4772	16.4785	4.0314	0.0496	1.1233	0.0503	1.1736	0.3079	0.0481	0.3560		5,436.5161	5,436.5161	0.4802		5,448.5220
Vendor	6.0500e-003	0.2037	0.0519	5.4000e-004	0.0135	4.3000e-004	0.0140	3.9000e-003	4.1000e-004	4.3100e-003		58.2704	58.2704	4.1600e-003		58.3745
Worker	0.0277	0.0180	0.2122	6.5000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		65.1553	65.1553	1.8600e-003		65.2018
Total	**0.5109**	**16.7002**	**4.2955**	**0.0508**	**1.2026**	**0.0512**	**1.2537**	**0.3292**	**0.0489**	**0.3781**		**5,559.9418**	**5,559.9418**	**0.4863**		**5,572.0983**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5376	0.0000	0.5376	0.2089	0.0000	0.2089			0.0000			0.0000
Off-Road	0.6561	5.8312	5.8740	9.6500e-003		0.3235	0.3235		0.3115	0.3115	0.0000	921.7587	921.7587	0.1409		925.2800
Total	**0.6561**	**5.8312**	**5.8740**	**9.6500e-003**	**0.5376**	**0.3235**	**0.8611**	**0.2089**	**0.3115**	**0.5204**	**0.0000**	**921.7587**	**921.7587**	**0.1409**		**925.2800**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4772	16.4785	4.0314	0.0496	1.1233	0.0503	1.1736	0.3079	0.0481	0.3560		5,436.5161	5,436.5161	0.4802		5,448.5220
Vendor	6.0500e-003	0.2037	0.0519	5.4000e-004	0.0135	4.3000e-004	0.0140	3.9000e-003	4.1000e-004	4.3100e-003		58.2704	58.2704	4.1600e-003		58.3745
Worker	0.0277	0.0180	0.2122	6.5000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		65.1553	65.1553	1.8600e-003		65.2018
Total	**0.5109**	**16.7002**	**4.2955**	**0.0508**	**1.2026**	**0.0512**	**1.2537**	**0.3292**	**0.0489**	**0.3781**		**5,559.9418**	**5,559.9418**	**0.4863**		**5,572.0983**

3.5 Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2809	2.8437	3.3904	4.6600e-003		0.1677	0.1677		0.1543	0.1543		451.3501	451.3501	0.1460		454.9995
Total	**0.2809**	**2.8437**	**3.3904**	**4.6600e-003**		**0.1677**	**0.1677**		**0.1543**	**0.1543**		**451.3501**	**451.3501**	**0.1460**		**454.9995**

3.5 Trenching - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0500e-003	0.2037	0.0519	5.4000e-004	0.0135	4.3000e-004	0.0140	3.9000e-003	4.1000e-004	4.3100e-003		58.2704	58.2704	4.1600e-003		58.3745
Worker	0.0208	0.0135	0.1591	4.9000e-004	0.0493	3.4000e-004	0.0496	0.0131	3.1000e-004	0.0134		48.8665	48.8665	1.3900e-003		48.9013
Total	**0.0268**	**0.2171**	**0.2110**	**1.0300e-003**	**0.0628**	**7.7000e-004**	**0.0636**	**0.0170**	**7.2000e-004**	**0.0177**		**107.1368**	**107.1368**	**5.5500e-003**		**107.2758**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2809	2.8437	3.3904	4.6600e-003		0.1677	0.1677		0.1543	0.1543	0.0000	451.3501	451.3501	0.1460		454.9995
Total	**0.2809**	**2.8437**	**3.3904**	**4.6600e-003**		**0.1677**	**0.1677**		**0.1543**	**0.1543**	**0.0000**	**451.3501**	**451.3501**	**0.1460**		**454.9995**

3.5 Trenching - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0500e-003	0.2037	0.0519	5.4000e-004	0.0135	4.3000e-004	0.0140	3.9000e-003	4.1000e-004	4.3100e-003		58.2704	58.2704	4.1600e-003		58.3745
Worker	0.0208	0.0135	0.1591	4.9000e-004	0.0493	3.4000e-004	0.0496	0.0131	3.1000e-004	0.0134		48.8665	48.8665	1.3900e-003		48.9013
Total	**0.0268**	**0.2171**	**0.2110**	**1.0300e-003**	**0.0628**	**7.7000e-004**	**0.0636**	**0.0170**	**7.2000e-004**	**0.0177**		**107.1368**	**107.1368**	**5.5500e-003**		**107.2758**

3.6 Building Construction - ROTC - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4907	5.2048	4.1276	7.1400e-003		0.2730	0.2730		0.2512	0.2512		691.2926	691.2926	0.2236		696.8820
Total	**0.4907**	**5.2048**	**4.1276**	**7.1400e-003**		**0.2730**	**0.2730**		**0.2512**	**0.2512**		**691.2926**	**691.2926**	**0.2236**		**696.8820**

3.6 Building Construction - ROTC - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0500e-003	0.2037	0.0519	5.4000e-004	0.0135	4.3000e-004	0.0140	3.9000e-003	4.1000e-004	4.3100e-003		58.2704	58.2704	4.1600e-003		58.3745
Worker	0.0553	0.0360	0.4244	1.3100e-003	0.1314	9.1000e-004	0.1323	0.0349	8.4000e-004	0.0357		130.3105	130.3105	3.7200e-003		130.4035
Total	**0.0614**	**0.2396**	**0.4763**	**1.8500e-003**	**0.1450**	**1.3400e-003**	**0.1463**	**0.0388**	**1.2500e-003**	**0.0400**		**188.5809**	**188.5809**	**7.8800e-003**		**188.7780**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4907	5.2048	4.1276	7.1400e-003		0.2730	0.2730		0.2512	0.2512	0.0000	691.2926	691.2926	0.2236		696.8820
Total	**0.4907**	**5.2048**	**4.1276**	**7.1400e-003**		**0.2730**	**0.2730**		**0.2512**	**0.2512**	**0.0000**	**691.2926**	**691.2926**	**0.2236**		**696.8820**

3.6 Building Construction - ROTC - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0500e-003	0.2037	0.0519	5.4000e-004	0.0135	4.3000e-004	0.0140	3.9000e-003	4.1000e-004	4.3100e-003		58.2704	58.2704	4.1600e-003		58.3745
Worker	0.0553	0.0360	0.4244	1.3100e-003	0.1314	9.1000e-004	0.1323	0.0349	8.4000e-004	0.0357		130.3105	130.3105	3.7200e-003		130.4035
Total	**0.0614**	**0.2396**	**0.4763**	**1.8500e-003**	**0.1450**	**1.3400e-003**	**0.1463**	**0.0388**	**1.2500e-003**	**0.0400**		**188.5809**	**188.5809**	**7.8800e-003**		**188.7780**

3.7 Construction - Marquee Sign - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5159	5.4434	5.4221	9.1100e-003		0.2671	0.2671		0.2457	0.2457		881.8931	881.8931	0.2852		889.0236
Total	**0.5159**	**5.4434**	**5.4221**	**9.1100e-003**		**0.2671**	**0.2671**		**0.2457**	**0.2457**		**881.8931**	**881.8931**	**0.2852**		**889.0236**

3.7 Construction - Marquee Sign - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6200e-003	0.1925	0.0492	5.4000e-004	0.0135	3.7000e-004	0.0139	3.9000e-003	3.5000e-004	4.2500e-003		57.7228	57.7228	4.0400e-003		57.8237
Worker	0.0327	0.0205	0.2466	7.9000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		78.4560	78.4560	2.1300e-003		78.5092
Total	**0.0383**	**0.2130**	**0.2958**	**1.3300e-003**	**0.0957**	**9.3000e-004**	**0.0966**	**0.0257**	**8.6000e-004**	**0.0266**		**136.1787**	**136.1787**	**6.1700e-003**		**136.3329**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5159	5.4434	5.4221	9.1100e-003		0.2671	0.2671		0.2457	0.2457	0.0000	881.8931	881.8931	0.2852		889.0236
Total	**0.5159**	**5.4434**	**5.4221**	**9.1100e-003**		**0.2671**	**0.2671**		**0.2457**	**0.2457**	**0.0000**	**881.8931**	**881.8931**	**0.2852**		**889.0236**

3.7 Construction - Marquee Sign - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6200e-003	0.1925	0.0492	5.4000e-004	0.0135	3.7000e-004	0.0139	3.9000e-003	3.5000e-004	4.2500e-003		57.7228	57.7228	4.0400e-003		57.8237
Worker	0.0327	0.0205	0.2466	7.9000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		78.4560	78.4560	2.1300e-003		78.5092
Total	**0.0383**	**0.2130**	**0.2958**	**1.3300e-003**	**0.0957**	**9.3000e-004**	**0.0966**	**0.0257**	**8.6000e-004**	**0.0266**		**136.1787**	**136.1787**	**6.1700e-003**		**136.3329**

3.8 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5892	5.8893	6.3961	9.6600e-003		0.3212	0.3212		0.2964	0.2964		921.6808	921.6808	0.2898		928.9251
Paving	0.0646					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6538**	**5.8893**	**6.3961**	**9.6600e-003**		**0.3212**	**0.3212**		**0.2964**	**0.2964**		**921.6808**	**921.6808**	**0.2898**		**928.9251**

3.8 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0500e-003	0.2037	0.0519	5.4000e-004	0.0135	4.3000e-004	0.0140	3.9000e-003	4.1000e-004	4.3100e-003		58.2704	58.2704	4.1600e-003		58.3745
Worker	0.0346	0.0225	0.2652	8.2000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		81.4441	81.4441	2.3200e-003		81.5022
Total	**0.0406**	**0.2261**	**0.3171**	**1.3600e-003**	**0.0957**	**1.0000e-003**	**0.0967**	**0.0257**	**9.3000e-004**	**0.0266**		**139.7145**	**139.7145**	**6.4800e-003**		**139.8767**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5892	5.8893	6.3961	9.6600e-003		0.3212	0.3212		0.2964	0.2964	0.0000	921.6808	921.6808	0.2898		928.9251
Paving	0.0646					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6538**	**5.8893**	**6.3961**	**9.6600e-003**		**0.3212**	**0.3212**		**0.2964**	**0.2964**	**0.0000**	**921.6808**	**921.6808**	**0.2898**		**928.9251**

3.8 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.0500e-003	0.2037	0.0519	5.4000e-004	0.0135	4.3000e-004	0.0140	3.9000e-003	4.1000e-004	4.3100e-003		58.2704	58.2704	4.1600e-003		58.3745
Worker	0.0346	0.0225	0.2652	8.2000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		81.4441	81.4441	2.3200e-003		81.5022
Total	**0.0406**	**0.2261**	**0.3171**	**1.3600e-003**	**0.0957**	**1.0000e-003**	**0.0967**	**0.0257**	**9.3000e-004**	**0.0266**		**139.7145**	**139.7145**	**6.4800e-003**		**139.8767**

3.8 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5147	5.0890	6.3408	9.6700e-003		0.2639	0.2639		0.2436	0.2436		922.1629	922.1629	0.2899		929.4110
Paving	0.0646					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5794**	**5.0890**	**6.3408**	**9.6700e-003**		**0.2639**	**0.2639**		**0.2436**	**0.2436**		**922.1629**	**922.1629**	**0.2899**		**929.4110**

3.8 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6200e-003	0.1925	0.0492	5.4000e-004	0.0135	3.7000e-004	0.0139	3.9000e-003	3.5000e-004	4.2500e-003		57.7228	57.7228	4.0400e-003		57.8237
Worker	0.0327	0.0205	0.2466	7.9000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		78.4560	78.4560	2.1300e-003		78.5092
Total	**0.0383**	**0.2130**	**0.2958**	**1.3300e-003**	**0.0957**	**9.3000e-004**	**0.0966**	**0.0257**	**8.6000e-004**	**0.0266**		**136.1787**	**136.1787**	**6.1700e-003**		**136.3329**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5147	5.0890	6.3408	9.6700e-003		0.2639	0.2639		0.2436	0.2436	0.0000	922.1629	922.1629	0.2899		929.4110
Paving	0.0646					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5794**	**5.0890**	**6.3408**	**9.6700e-003**		**0.2639**	**0.2639**		**0.2436**	**0.2436**	**0.0000**	**922.1629**	**922.1629**	**0.2899**		**929.4110**

3.8 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6200e-003	0.1925	0.0492	5.4000e-004	0.0135	3.7000e-004	0.0139	3.9000e-003	3.5000e-004	4.2500e-003		57.7228	57.7228	4.0400e-003		57.8237
Worker	0.0327	0.0205	0.2466	7.9000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		78.4560	78.4560	2.1300e-003		78.5092
Total	**0.0383**	**0.2130**	**0.2958**	**1.3300e-003**	**0.0957**	**9.3000e-004**	**0.0966**	**0.0257**	**8.6000e-004**	**0.0266**		**136.1787**	**136.1787**	**6.1700e-003**		**136.3329**

3.9 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.2028					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**3.4073**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.9 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6200e-003	0.1925	0.0492	5.4000e-004	0.0135	3.7000e-004	0.0139	3.9000e-003	3.5000e-004	4.2500e-003		57.7228	57.7228	4.0400e-003		57.8237
Worker	6.5400e-003	4.1000e-003	0.0493	1.6000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		15.6912	15.6912	4.3000e-004		15.7019
Total	**0.0122**	**0.1966**	**0.0985**	**7.0000e-004**	**0.0300**	**4.8000e-004**	**0.0305**	**8.2600e-003**	**4.5000e-004**	**8.7100e-003**		**73.4140**	**73.4140**	**4.4700e-003**		**73.5255**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.2028					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**3.4073**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.9 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.6200e-003	0.1925	0.0492	5.4000e-004	0.0135	3.7000e-004	0.0139	3.9000e-003	3.5000e-004	4.2500e-003		57.7228	57.7228	4.0400e-003		57.8237
Worker	6.5400e-003	4.1000e-003	0.0493	1.6000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		15.6912	15.6912	4.3000e-004		15.7019
Total	**0.0122**	**0.1966**	**0.0985**	**7.0000e-004**	**0.0300**	**4.8000e-004**	**0.0305**	**8.2600e-003**	**4.5000e-004**	**8.7100e-003**		**73.4140**	**73.4140**	**4.4700e-003**		**73.5255**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High School	9.50	7.30	7.30	77.80	17.20	5.00	75	19	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Parking Lot	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	8.3000e-004	7.5700e-003	6.3600e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004		9.0879	9.0879	1.7000e-004	1.7000e-004	9.1419
NaturalGas Unmitigated	8.3000e-004	7.5700e-003	6.3600e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004		9.0879	9.0879	1.7000e-004	1.7000e-004	9.1419

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
High School	77.2471	8.3000e-004	7.5700e-003	6.3600e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004		9.0879	9.0879	1.7000e-004	1.7000e-004	9.1419
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**8.3000e-004**	**7.5700e-003**	**6.3600e-003**	**5.0000e-005**		**5.8000e-004**	**5.8000e-004**		**5.8000e-004**	**5.8000e-004**		**9.0879**	**9.0879**	**1.7000e-004**	**1.7000e-004**	**9.1419**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
High School	0.0772471	8.3000e-004	7.5700e-003	6.3600e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004		9.0879	9.0879	1.7000e-004	1.7000e-004	9.1419
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**8.3000e-004**	**7.5700e-003**	**6.3600e-003**	**5.0000e-005**		**5.8000e-004**	**5.8000e-004**		**5.8000e-004**	**5.8000e-004**		**9.0879**	**9.0879**	**1.7000e-004**	**1.7000e-004**	**9.1419**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1321	2.0000e-005	2.2100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7200e-003	4.7200e-003	1.0000e-005		5.0300e-003
Unmitigated	0.1321	2.0000e-005	2.2100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7200e-003	4.7200e-003	1.0000e-005		5.0300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0132					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1188					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.1000e-004	2.0000e-005	2.2100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7200e-003	4.7200e-003	1.0000e-005		5.0300e-003
Total	**0.1321**	**2.0000e-005**	**2.2100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.7200e-003**	**4.7200e-003**	**1.0000e-005**		**5.0300e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0132					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1188					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.1000e-004	2.0000e-005	2.2100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7200e-003	4.7200e-003	1.0000e-005		5.0300e-003
Total	**0.1321**	**2.0000e-005**	**2.2100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.7200e-003**	**4.7200e-003**	**1.0000e-005**		**5.0300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

San Ysidro High School ROTC and Improvements Project

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	5.28	1000sqft	0.50	5,280.00	0
Parking Lot	16.30	1000sqft	0.37	16,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	448.3	**CH4 Intensity (lb/MWhr)**	0.018	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted SDGE GHG intensity factors based on 44% RPS, which SDGE achieved in 2017

Land Use - New ROTC buildings/facilities and associated parking

Construction Phase - Construction phases and durations based on applicant input

Off-road Equipment - Default

Off-road Equipment - Default

Off-road Equipment - Equipment assumptions based on applicant input

Off-road Equipment - Anticipated equipment for marquee sign

Off-road Equipment - Equipment assumptions based on applicant input

Off-road Equipment - Equipment assumptions based on applicant input

Off-road Equipment - Equipment assumptions based on applicant input

Off-road Equipment - Equipment assumptions based on applicant input

Off-road Equipment - Equipment assumptions based on applicant input

Trips and VMT - Based on input from the applicant and CalEEMod defaults

On-road Fugitive Dust - Default

Demolition - JROTC demo based on project description.

Grading - 3,150 CY fill imported for JROTC

Architectural Coating - Interior/exterior coating g/L based on SDAPCD rule 67.0.1 limits for flat and non-flat coatings

Vehicle Trips - No new trips anticipated

Consumer Products - Default

Area Coating - Interior/exterior coating g/L based on SDAPCD rule 67.0.1 limits for flat and non-flat coatings

Landscape Equipment - Default

Energy Use - Revised per 2019 Title 24

Water And Wastewater - Default

Solid Waste - Default

Construction Off-road Equipment Mitigation - Water 2x per day consistent with SDAPCD Rule 55

San Ysidro High School ROTC and Improvements Project - San Diego County, Winter

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	1.00	5.00
tblConstructionPhase	NumDays	2.00	7.00
tblConstructionPhase	NumDays	100.00	96.00
tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	NumDays	100.00	10.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	T24E	1.52	1.36
tblEnergyUse	T24NG	5.44	4.86
tblGrading	AcresOfGrading	0.00	2.50
tblGrading	MaterialImported	0.00	3,150.00
tblLandUse	LotAcreage	0.12	0.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	720.49	448.3
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblTripsAndVMT	HaulingTripNumber	0.00	46.00
tblTripsAndVMT	HaulingTripNumber	394.00	450.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	4.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	4.00	2.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	9.00	16.00
tblTripsAndVMT	WorkerTripNumber	9.00	10.00
tblVehicleTrips	ST_TR	4.37	0.00
tblVehicleTrips	SU_TR	1.79	0.00
tblVehicleTrips	WD_TR	12.89	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.1842	22.6752	10.4164	0.0595	2.3973	0.3758	2.7731	0.7934	0.3614	1.1549	0.0000	6,382.2743	6,382.2743	0.6430	0.0000	6,398.3503
2022	3.4207	5.6582	6.6268	0.0109	0.0957	0.2680	0.3637	0.0257	0.2466	0.2723	0.0000	1,052.0359	1,052.0359	0.2962	0.0000	1,059.4414
Maximum	**3.4207**	**22.6752**	**10.4164**	**0.0595**	**2.3973**	**0.3758**	**2.7731**	**0.7934**	**0.3614**	**1.1549**	**0.0000**	**6,382.2743**	**6,382.2743**	**0.6430**	**0.0000**	**6,398.3503**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	1.1842	22.6752	10.4164	0.0595	1.7402	0.3758	2.1160	0.5381	0.3614	0.8995	0.0000	6,382.2743	6,382.2743	0.6430	0.0000	6,398.3503
2022	3.4207	5.6582	6.6268	0.0109	0.0957	0.2680	0.3637	0.0257	0.2466	0.2723	0.0000	1,052.0359	1,052.0359	0.2962	0.0000	1,059.4414
Maximum	**3.4207**	**22.6752**	**10.4164**	**0.0595**	**1.7402**	**0.3758**	**2.1160**	**0.5381**	**0.3614**	**0.8995**	**0.0000**	**6,382.2743**	**6,382.2743**	**0.6430**	**0.0000**	**6,398.3503**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**26.36**	**0.00**	**20.95**	**31.17**	**0.00**	**17.89**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1321	2.0000e-005	2.2100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7200e-003	4.7200e-003	1.0000e-005		5.0300e-003
Energy	8.3000e-004	7.5700e-003	6.3600e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004		9.0879	9.0879	1.7000e-004	1.7000e-004	9.1419
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1330**	**7.5900e-003**	**8.5700e-003**	**5.0000e-005**	**0.0000**	**5.9000e-004**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**5.9000e-004**		**9.0926**	**9.0926**	**1.8000e-004**	**1.7000e-004**	**9.1469**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1321	2.0000e-005	2.2100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7200e-003	4.7200e-003	1.0000e-005		5.0300e-003
Energy	8.3000e-004	7.5700e-003	6.3600e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004		9.0879	9.0879	1.7000e-004	1.7000e-004	9.1419
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.1330**	**7.5900e-003**	**8.5700e-003**	**5.0000e-005**	**0.0000**	**5.9000e-004**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**5.9000e-004**		**9.0926**	**9.0926**	**1.8000e-004**	**1.7000e-004**	**9.1469**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/9/2021	8/13/2021	6	5	
2	Site Preparation	Site Preparation	8/14/2021	8/19/2021	6	5	
3	Grading	Grading	8/20/2021	8/27/2021	6	7	
4	Trenching	Trenching	8/28/2021	9/8/2021	6	10	
5	Building Construction - ROTC	Building Construction	9/9/2021	12/29/2021	6	96	
6	Construction - Marquee Sign	Building Construction	2/10/2022	2/23/2022	5	10	
7	Paving	Paving	12/30/2021	1/19/2022	5	15	
8	Architectural Coating	Architectural Coating	1/20/2022	2/9/2022	5	15	

Acres of Grading (Site Preparation Phase): 2.5

Acres of Grading (Grading Phase): 2.5

Acres of Paving: 0.37

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,920; Non-Residential Outdoor: 2,640; Striped Parking Area: 978 (Architectural Coating – sqft)

OffRoad Equipment

San Ysidro High School ROTC and Improvements Project - San Diego County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	0.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Graders	0	0.00	187	0.41
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Trenching	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction - ROTC	Cranes	1	4.00	231	0.29
Building Construction - ROTC	Forklifts	1	6.00	89	0.20
Building Construction - ROTC	Generator Sets	0	0.00	84	0.74
Building Construction - ROTC	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction - ROTC	Welders	0	0.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Paving Equipment	0	0.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Construction - Marquee Sign	Cranes	1	4.00	231	0.29
Construction - Marquee Sign	Forklifts	0	6.00	89	0.20
Construction - Marquee Sign	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	8.00	2.00	44.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	6.00	2.00	46.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	2.00	450.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	6.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - ROTC	3	16.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Construction - Marquee Sign	3	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9454	0.0000	1.9454	0.2946	0.0000	0.2946			0.0000			0.0000
Off-Road	0.6561	5.8312	5.8740	9.6500e-003		0.3235	0.3235		0.3115	0.3115		921.7587	921.7587	0.1409		925.2800
Total	**0.6561**	**5.8312**	**5.8740**	**9.6500e-003**	**1.9454**	**0.3235**	**2.2689**	**0.2946**	**0.3115**	**0.6061**		**921.7587**	**921.7587**	**0.1409**		**925.2800**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0671	2.2752	0.5866	6.6700e-003	0.1538	7.0300e-003	0.1608	0.0421	6.7200e-003	0.0489		731.3409	731.3409	0.0679		733.0384
Vendor	6.3700e-003	0.2031	0.0578	5.3000e-004	0.0135	4.5000e-004	0.0140	3.9000e-003	4.3000e-004	4.3200e-003		56.7639	56.7639	4.4200e-003		56.8744
Worker	0.0314	0.0202	0.1995	6.1000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		61.1638	61.1638	1.7600e-003		61.2077
Total	**0.1049**	**2.4985**	**0.8438**	**7.8100e-003**	**0.2330**	**7.9300e-003**	**0.2410**	**0.0635**	**7.5700e-003**	**0.0710**		**849.2686**	**849.2686**	**0.0741**		**851.1205**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8755	0.0000	0.8755	0.1326	0.0000	0.1326			0.0000			0.0000
Off-Road	0.6561	5.8312	5.8740	9.6500e-003		0.3235	0.3235		0.3115	0.3115	0.0000	921.7587	921.7587	0.1409		925.2800
Total	**0.6561**	**5.8312**	**5.8740**	**9.6500e-003**	**0.8755**	**0.3235**	**1.1990**	**0.1326**	**0.3115**	**0.4440**	**0.0000**	**921.7587**	**921.7587**	**0.1409**		**925.2800**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0671	2.2752	0.5866	6.6700e-003	0.1538	7.0300e-003	0.1608	0.0421	6.7200e-003	0.0489		731.3409	731.3409	0.0679		733.0384
Vendor	6.3700e-003	0.2031	0.0578	5.3000e-004	0.0135	4.5000e-004	0.0140	3.9000e-003	4.3000e-004	4.3200e-003		56.7639	56.7639	4.4200e-003		56.8744
Worker	0.0314	0.0202	0.1995	6.1000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		61.1638	61.1638	1.7600e-003		61.2077
Total	**0.1049**	**2.4985**	**0.8438**	**7.8100e-003**	**0.2330**	**7.9300e-003**	**0.2410**	**0.0635**	**7.5700e-003**	**0.0710**		**849.2686**	**849.2686**	**0.0741**		**851.1205**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755		942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.5303**	**0.2995**	**0.8297**	**0.0573**	**0.2755**	**0.3328**		**942.5842**	**942.5842**	**0.3049**		**950.2055**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0702	2.3786	0.6133	6.9700e-003	0.1608	7.3500e-003	0.1681	0.0441	7.0300e-003	0.0511		764.5837	764.5837	0.0710		766.3583
Vendor	6.3700e-003	0.2031	0.0578	5.3000e-004	0.0135	4.5000e-004	0.0140	3.9000e-003	4.3000e-004	4.3200e-003		56.7639	56.7639	4.4200e-003		56.8744
Worker	0.0235	0.0151	0.1496	4.6000e-004	0.0493	3.4000e-004	0.0496	0.0131	3.1000e-004	0.0134		45.8729	45.8729	1.3200e-003		45.9058
Total	**0.1001**	**2.5969**	**0.8206**	**7.9600e-003**	**0.2236**	**8.1400e-003**	**0.2317**	**0.0610**	**7.7700e-003**	**0.0688**		**867.2204**	**867.2204**	**0.0767**		**869.1385**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755	0.0000	942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.2386**	**0.2995**	**0.5381**	**0.0258**	**0.2755**	**0.3013**	**0.0000**	**942.5842**	**942.5842**	**0.3049**		**950.2055**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0702	2.3786	0.6133	6.9700e-003	0.1608	7.3500e-003	0.1681	0.0441	7.0300e-003	0.0511		764.5837	764.5837	0.0710		766.3583
Vendor	6.3700e-003	0.2031	0.0578	5.3000e-004	0.0135	4.5000e-004	0.0140	3.9000e-003	4.3000e-004	4.3200e-003		56.7639	56.7639	4.4200e-003		56.8744
Worker	0.0235	0.0151	0.1496	4.6000e-004	0.0493	3.4000e-004	0.0496	0.0131	3.1000e-004	0.0134		45.8729	45.8729	1.3200e-003		45.9058
Total	**0.1001**	**2.5969**	**0.8206**	**7.9600e-003**	**0.2236**	**8.1400e-003**	**0.2317**	**0.0610**	**7.7700e-003**	**0.0688**		**867.2204**	**867.2204**	**0.0767**		**869.1385**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.1947	0.0000	1.1947	0.4643	0.0000	0.4643			0.0000			0.0000
Off-Road	0.6561	5.8312	5.8740	9.6500e-003		0.3235	0.3235		0.3115	0.3115		921.7587	921.7587	0.1409		925.2800
Total	**0.6561**	**5.8312**	**5.8740**	**9.6500e-003**	**1.1947**	**0.3235**	**1.5182**	**0.4643**	**0.3115**	**0.7757**		**921.7587**	**921.7587**	**0.1409**		**925.2800**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4904	16.6207	4.2852	0.0487	1.1233	0.0514	1.1747	0.3079	0.0491	0.3570		5,342.5879	5,342.5879	0.4960		5,354.9882
Vendor	6.3700e-003	0.2031	0.0578	5.3000e-004	0.0135	4.5000e-004	0.0140	3.9000e-003	4.3000e-004	4.3200e-003		56.7639	56.7639	4.4200e-003		56.8744
Worker	0.0314	0.0202	0.1995	6.1000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		61.1638	61.1638	1.7600e-003		61.2077
Total	**0.5281**	**16.8440**	**4.5424**	**0.0499**	**1.2026**	**0.0523**	**1.2548**	**0.3292**	**0.0500**	**0.3792**		**5,460.5155**	**5,460.5155**	**0.5022**		**5,473.0704**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5376	0.0000	0.5376	0.2089	0.0000	0.2089			0.0000			0.0000
Off-Road	0.6561	5.8312	5.8740	9.6500e-003		0.3235	0.3235		0.3115	0.3115	0.0000	921.7587	921.7587	0.1409		925.2800
Total	**0.6561**	**5.8312**	**5.8740**	**9.6500e-003**	**0.5376**	**0.3235**	**0.8611**	**0.2089**	**0.3115**	**0.5204**	**0.0000**	**921.7587**	**921.7587**	**0.1409**		**925.2800**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4904	16.6207	4.2852	0.0487	1.1233	0.0514	1.1747	0.3079	0.0491	0.3570		5,342.5879	5,342.5879	0.4960		5,354.9882
Vendor	6.3700e-003	0.2031	0.0578	5.3000e-004	0.0135	4.5000e-004	0.0140	3.9000e-003	4.3000e-004	4.3200e-003		56.7639	56.7639	4.4200e-003		56.8744
Worker	0.0314	0.0202	0.1995	6.1000e-004	0.0657	4.5000e-004	0.0662	0.0174	4.2000e-004	0.0179		61.1638	61.1638	1.7600e-003		61.2077
Total	**0.5281**	**16.8440**	**4.5424**	**0.0499**	**1.2026**	**0.0523**	**1.2548**	**0.3292**	**0.0500**	**0.3792**		**5,460.5155**	**5,460.5155**	**0.5022**		**5,473.0704**

3.5 Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2809	2.8437	3.3904	4.6600e-003		0.1677	0.1677		0.1543	0.1543		451.3501	451.3501	0.1460		454.9995
Total	**0.2809**	**2.8437**	**3.3904**	**4.6600e-003**		**0.1677**	**0.1677**		**0.1543**	**0.1543**		**451.3501**	**451.3501**	**0.1460**		**454.9995**

3.5 Trenching - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3700e-003	0.2031	0.0578	5.3000e-004	0.0135	4.5000e-004	0.0140	3.9000e-003	4.3000e-004	4.3200e-003		56.7639	56.7639	4.4200e-003		56.8744
Worker	0.0235	0.0151	0.1496	4.6000e-004	0.0493	3.4000e-004	0.0496	0.0131	3.1000e-004	0.0134		45.8729	45.8729	1.3200e-003		45.9058
Total	**0.0299**	**0.2183**	**0.2074**	**9.9000e-004**	**0.0628**	**7.9000e-004**	**0.0636**	**0.0170**	**7.4000e-004**	**0.0177**		**102.6367**	**102.6367**	**5.7400e-003**		**102.7802**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2809	2.8437	3.3904	4.6600e-003		0.1677	0.1677		0.1543	0.1543	0.0000	451.3501	451.3501	0.1460		454.9995
Total	**0.2809**	**2.8437**	**3.3904**	**4.6600e-003**		**0.1677**	**0.1677**		**0.1543**	**0.1543**	**0.0000**	**451.3501**	**451.3501**	**0.1460**		**454.9995**

3.5 Trenching - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3700e-003	0.2031	0.0578	5.3000e-004	0.0135	4.5000e-004	0.0140	3.9000e-003	4.3000e-004	4.3200e-003		56.7639	56.7639	4.4200e-003		56.8744
Worker	0.0235	0.0151	0.1496	4.6000e-004	0.0493	3.4000e-004	0.0496	0.0131	3.1000e-004	0.0134		45.8729	45.8729	1.3200e-003		45.9058
Total	**0.0299**	**0.2183**	**0.2074**	**9.9000e-004**	**0.0628**	**7.9000e-004**	**0.0636**	**0.0170**	**7.4000e-004**	**0.0177**		**102.6367**	**102.6367**	**5.7400e-003**		**102.7802**

3.6 Building Construction - ROTC - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4907	5.2048	4.1276	7.1400e-003		0.2730	0.2730		0.2512	0.2512		691.2926	691.2926	0.2236		696.8820
Total	**0.4907**	**5.2048**	**4.1276**	**7.1400e-003**		**0.2730**	**0.2730**		**0.2512**	**0.2512**		**691.2926**	**691.2926**	**0.2236**		**696.8820**

3.6 Building Construction - ROTC - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3700e-003	0.2031	0.0578	5.3000e-004	0.0135	4.5000e-004	0.0140	3.9000e-003	4.3000e-004	4.3200e-003		56.7639	56.7639	4.4200e-003		56.8744
Worker	0.0628	0.0404	0.3989	1.2300e-003	0.1314	9.1000e-004	0.1323	0.0349	8.4000e-004	0.0357		122.3276	122.3276	3.5100e-003		122.4155
Total	**0.0691**	**0.2435**	**0.4567**	**1.7600e-003**	**0.1450**	**1.3600e-003**	**0.1463**	**0.0388**	**1.2700e-003**	**0.0400**		**179.0915**	**179.0915**	**7.9300e-003**		**179.2899**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4907	5.2048	4.1276	7.1400e-003		0.2730	0.2730		0.2512	0.2512	0.0000	691.2926	691.2926	0.2236		696.8820
Total	**0.4907**	**5.2048**	**4.1276**	**7.1400e-003**		**0.2730**	**0.2730**		**0.2512**	**0.2512**	**0.0000**	**691.2926**	**691.2926**	**0.2236**		**696.8820**

3.6 Building Construction - ROTC - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3700e-003	0.2031	0.0578	5.3000e-004	0.0135	4.5000e-004	0.0140	3.9000e-003	4.3000e-004	4.3200e-003		56.7639	56.7639	4.4200e-003		56.8744
Worker	0.0628	0.0404	0.3989	1.2300e-003	0.1314	9.1000e-004	0.1323	0.0349	8.4000e-004	0.0357		122.3276	122.3276	3.5100e-003		122.4155
Total	**0.0691**	**0.2435**	**0.4567**	**1.7600e-003**	**0.1450**	**1.3600e-003**	**0.1463**	**0.0388**	**1.2700e-003**	**0.0400**		**179.0915**	**179.0915**	**7.9300e-003**		**179.2899**

3.7 Construction - Marquee Sign - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5159	5.4434	5.4221	9.1100e-003		0.2671	0.2671		0.2457	0.2457		881.8931	881.8931	0.2852		889.0236
Total	**0.5159**	**5.4434**	**5.4221**	**9.1100e-003**		**0.2671**	**0.2671**		**0.2457**	**0.2457**		**881.8931**	**881.8931**	**0.2852**		**889.0236**

3.7 Construction - Marquee Sign - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.9300e-003	0.1918	0.0547	5.2000e-004	0.0135	3.8000e-004	0.0139	3.9000e-003	3.7000e-004	4.2600e-003		56.2205	56.2205	4.2800e-003		56.3276
Worker	0.0372	0.0230	0.2314	7.4000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		73.6526	73.6526	2.0100e-003		73.7028
Total	**0.0431**	**0.2148**	**0.2861**	**1.2600e-003**	**0.0957**	**9.4000e-004**	**0.0966**	**0.0257**	**8.8000e-004**	**0.0266**		**129.8731**	**129.8731**	**6.2900e-003**		**130.0304**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5159	5.4434	5.4221	9.1100e-003		0.2671	0.2671		0.2457	0.2457	0.0000	881.8931	881.8931	0.2852		889.0236
Total	**0.5159**	**5.4434**	**5.4221**	**9.1100e-003**		**0.2671**	**0.2671**		**0.2457**	**0.2457**	**0.0000**	**881.8931**	**881.8931**	**0.2852**		**889.0236**

3.7 Construction - Marquee Sign - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.9300e-003	0.1918	0.0547	5.2000e-004	0.0135	3.8000e-004	0.0139	3.9000e-003	3.7000e-004	4.2600e-003		56.2205	56.2205	4.2800e-003		56.3276
Worker	0.0372	0.0230	0.2314	7.4000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		73.6526	73.6526	2.0100e-003		73.7028
Total	**0.0431**	**0.2148**	**0.2861**	**1.2600e-003**	**0.0957**	**9.4000e-004**	**0.0966**	**0.0257**	**8.8000e-004**	**0.0266**		**129.8731**	**129.8731**	**6.2900e-003**		**130.0304**

3.8 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5892	5.8893	6.3961	9.6600e-003		0.3212	0.3212		0.2964	0.2964		921.6808	921.6808	0.2898		928.9251
Paving	0.0646					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6538**	**5.8893**	**6.3961**	**9.6600e-003**		**0.3212**	**0.3212**		**0.2964**	**0.2964**		**921.6808**	**921.6808**	**0.2898**		**928.9251**

3.8 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3700e-003	0.2031	0.0578	5.3000e-004	0.0135	4.5000e-004	0.0140	3.9000e-003	4.3000e-004	4.3200e-003		56.7639	56.7639	4.4200e-003		56.8744
Worker	0.0392	0.0252	0.2493	7.7000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		76.4548	76.4548	2.2000e-003		76.5097
Total	**0.0456**	**0.2283**	**0.3071**	**1.3000e-003**	**0.0957**	**1.0200e-003**	**0.0967**	**0.0257**	**9.5000e-004**	**0.0266**		**133.2186**	**133.2186**	**6.6200e-003**		**133.3841**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5892	5.8893	6.3961	9.6600e-003		0.3212	0.3212		0.2964	0.2964	0.0000	921.6808	921.6808	0.2898		928.9251
Paving	0.0646					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6538**	**5.8893**	**6.3961**	**9.6600e-003**		**0.3212**	**0.3212**		**0.2964**	**0.2964**	**0.0000**	**921.6808**	**921.6808**	**0.2898**		**928.9251**

3.8 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	6.3700e-003	0.2031	0.0578	5.3000e-004	0.0135	4.5000e-004	0.0140	3.9000e-003	4.3000e-004	4.3200e-003		56.7639	56.7639	4.4200e-003		56.8744
Worker	0.0392	0.0252	0.2493	7.7000e-004	0.0822	5.7000e-004	0.0827	0.0218	5.2000e-004	0.0223		76.4548	76.4548	2.2000e-003		76.5097
Total	**0.0456**	**0.2283**	**0.3071**	**1.3000e-003**	**0.0957**	**1.0200e-003**	**0.0967**	**0.0257**	**9.5000e-004**	**0.0266**		**133.2186**	**133.2186**	**6.6200e-003**		**133.3841**

3.8 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5147	5.0890	6.3408	9.6700e-003		0.2639	0.2639		0.2436	0.2436		922.1629	922.1629	0.2899		929.4110
Paving	0.0646					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5794**	**5.0890**	**6.3408**	**9.6700e-003**		**0.2639**	**0.2639**		**0.2436**	**0.2436**		**922.1629**	**922.1629**	**0.2899**		**929.4110**

3.8 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.9300e-003	0.1918	0.0547	5.2000e-004	0.0135	3.8000e-004	0.0139	3.9000e-003	3.7000e-004	4.2600e-003		56.2205	56.2205	4.2800e-003		56.3276
Worker	0.0372	0.0230	0.2314	7.4000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		73.6526	73.6526	2.0100e-003		73.7028
Total	**0.0431**	**0.2148**	**0.2861**	**1.2600e-003**	**0.0957**	**9.4000e-004**	**0.0966**	**0.0257**	**8.8000e-004**	**0.0266**		**129.8731**	**129.8731**	**6.2900e-003**		**130.0304**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5147	5.0890	6.3408	9.6700e-003		0.2639	0.2639		0.2436	0.2436	0.0000	922.1629	922.1629	0.2899		929.4110
Paving	0.0646					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5794**	**5.0890**	**6.3408**	**9.6700e-003**		**0.2639**	**0.2639**		**0.2436**	**0.2436**	**0.0000**	**922.1629**	**922.1629**	**0.2899**		**929.4110**

3.8 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.9300e-003	0.1918	0.0547	5.2000e-004	0.0135	3.8000e-004	0.0139	3.9000e-003	3.7000e-004	4.2600e-003		56.2205	56.2205	4.2800e-003		56.3276
Worker	0.0372	0.0230	0.2314	7.4000e-004	0.0822	5.6000e-004	0.0827	0.0218	5.1000e-004	0.0223		73.6526	73.6526	2.0100e-003		73.7028
Total	**0.0431**	**0.2148**	**0.2861**	**1.2600e-003**	**0.0957**	**9.4000e-004**	**0.0966**	**0.0257**	**8.8000e-004**	**0.0266**		**129.8731**	**129.8731**	**6.2900e-003**		**130.0304**

3.9 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.2028					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**3.4073**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.9 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.9300e-003	0.1918	0.0547	5.2000e-004	0.0135	3.8000e-004	0.0139	3.9000e-003	3.7000e-004	4.2600e-003		56.2205	56.2205	4.2800e-003		56.3276
Worker	7.4300e-003	4.6000e-003	0.0463	1.5000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		14.7305	14.7305	4.0000e-004		14.7406
Total	**0.0134**	**0.1964**	**0.1010**	**6.7000e-004**	**0.0300**	**4.9000e-004**	**0.0305**	**8.2600e-003**	**4.7000e-004**	**8.7200e-003**		**70.9510**	**70.9510**	**4.6800e-003**		**71.0681**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.2028					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**3.4073**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.9 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	5.9300e-003	0.1918	0.0547	5.2000e-004	0.0135	3.8000e-004	0.0139	3.9000e-003	3.7000e-004	4.2600e-003		56.2205	56.2205	4.2800e-003		56.3276
Worker	7.4300e-003	4.6000e-003	0.0463	1.5000e-004	0.0164	1.1000e-004	0.0165	4.3600e-003	1.0000e-004	4.4600e-003		14.7305	14.7305	4.0000e-004		14.7406
Total	**0.0134**	**0.1964**	**0.1010**	**6.7000e-004**	**0.0300**	**4.9000e-004**	**0.0305**	**8.2600e-003**	**4.7000e-004**	**8.7200e-003**		**70.9510**	**70.9510**	**4.6800e-003**		**71.0681**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High School	9.50	7.30	7.30	77.80	17.20	5.00	75	19	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Parking Lot	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	8.3000e-004	7.5700e-003	6.3600e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004		9.0879	9.0879	1.7000e-004	1.7000e-004	9.1419
NaturalGas Unmitigated	8.3000e-004	7.5700e-003	6.3600e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004		9.0879	9.0879	1.7000e-004	1.7000e-004	9.1419

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
High School	77.2471	8.3000e-004	7.5700e-003	6.3600e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004		9.0879	9.0879	1.7000e-004	1.7000e-004	9.1419
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**8.3000e-004**	**7.5700e-003**	**6.3600e-003**	**5.0000e-005**		**5.8000e-004**	**5.8000e-004**		**5.8000e-004**	**5.8000e-004**		**9.0879**	**9.0879**	**1.7000e-004**	**1.7000e-004**	**9.1419**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
High School	0.0772471	8.3000e-004	7.5700e-003	6.3600e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004		9.0879	9.0879	1.7000e-004	1.7000e-004	9.1419
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**8.3000e-004**	**7.5700e-003**	**6.3600e-003**	**5.0000e-005**		**5.8000e-004**	**5.8000e-004**		**5.8000e-004**	**5.8000e-004**		**9.0879**	**9.0879**	**1.7000e-004**	**1.7000e-004**	**9.1419**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1321	2.0000e-005	2.2100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7200e-003	4.7200e-003	1.0000e-005		5.0300e-003
Unmitigated	0.1321	2.0000e-005	2.2100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7200e-003	4.7200e-003	1.0000e-005		5.0300e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0132					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1188					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.1000e-004	2.0000e-005	2.2100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7200e-003	4.7200e-003	1.0000e-005		5.0300e-003
Total	**0.1321**	**2.0000e-005**	**2.2100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.7200e-003**	**4.7200e-003**	**1.0000e-005**		**5.0300e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0132					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1188					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.1000e-004	2.0000e-005	2.2100e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.7200e-003	4.7200e-003	1.0000e-005		5.0300e-003
Total	**0.1321**	**2.0000e-005**	**2.2100e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.7200e-003**	**4.7200e-003**	**1.0000e-005**		**5.0300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

San Ysidro High School ROTC and Improvements Project

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High School	5.28	1000sqft	0.50	5,280.00	0
Parking Lot	16.30	1000sqft	0.37	16,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	448.3	**CH4 Intensity (lb/MWhr)**	0.018	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted SDGE GHG intensity factors based on 44% RPS, which SDGE achieved in 2017

Land Use - New ROTC buildings/facilities and associated parking

Construction Phase - Construction phases and durations based on applicant input

Off-road Equipment - Default

Off-road Equipment - Default

Off-road Equipment - Equipment assumptions based on applicant input

Off-road Equipment - Anticipated equipment for marquee sign

Off-road Equipment - Equipment assumptions based on applicant input

Off-road Equipment - Equipment assumptions based on applicant input

Off-road Equipment - Equipment assumptions based on applicant input

Off-road Equipment - Equipment assumptions based on applicant input

Off-road Equipment - Equipment assumptions based on applicant input

Trips and VMT - Based on input from the applicant and CalEEMod defaults

On-road Fugitive Dust - Default

Demolition - JROTC demo based on project description.

Grading - 3,150 CY fill imported for JROTC

Architectural Coating - Interior/exterior coating g/L based on SDAPCD rule 67.0.1 limits for flat and non-flat coatings

Vehicle Trips - No new trips anticipated

Consumer Products - Default

Area Coating - Interior/exterior coating g/L based on SDAPCD rule 67.0.1 limits for flat and non-flat coatings

Landscape Equipment - Default

Energy Use - Revised per 2019 Title 24

Water And Wastewater - Default

Solid Waste - Default

Construction Off-road Equipment Mitigation - Water 2x per day consistent with SDAPCD Rule 55

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Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	50
tblConstructionPhase	NumDays	10.00	5.00
tblConstructionPhase	NumDays	1.00	5.00
tblConstructionPhase	NumDays	2.00	7.00
tblConstructionPhase	NumDays	100.00	96.00
tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	NumDays	100.00	10.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblEnergyUse	T24E	1.52	1.36
tblEnergyUse	T24NG	5.44	4.86
tblGrading	AcresOfGrading	0.00	2.50
tblGrading	MaterialImported	0.00	3,150.00
tblLandUse	LotAcreage	0.12	0.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.018
tblProjectCharacteristics	CO2IntensityFactor	720.49	448.3
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblTripsAndVMT	HaulingTripNumber	0.00	46.00
tblTripsAndVMT	HaulingTripNumber	394.00	450.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	4.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	4.00	2.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	9.00	16.00
tblTripsAndVMT	WorkerTripNumber	9.00	10.00
tblVehicleTrips	ST_TR	4.37	0.00
tblVehicleTrips	SU_TR	1.79	0.00
tblVehicleTrips	WD_TR	12.89	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0366	0.4100	0.3094	7.7000e-004	0.0228	0.0172	0.0401	5.8700e-003	0.0160	0.0218	0.0000	70.0740	70.0740	0.0144	0.0000	70.4338
2022	0.0324	0.0748	0.0859	1.5000e-004	1.2900e-003	3.6800e-003	4.9700e-003	3.5000e-004	3.4400e-003	3.7900e-003	0.0000	13.2142	13.2142	3.2200e-003	0.0000	13.2948
Maximum	**0.0366**	**0.4100**	**0.3094**	**7.7000e-004**	**0.0228**	**0.0172**	**0.0401**	**5.8700e-003**	**0.0160**	**0.0218**	**0.0000**	**70.0740**	**70.0740**	**0.0144**	**0.0000**	**70.4338**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0366	0.4100	0.3094	7.7000e-004	0.0171	0.0172	0.0343	4.4900e-003	0.0160	0.0205	0.0000	70.0739	70.0739	0.0144	0.0000	70.4337
2022	0.0324	0.0748	0.0859	1.5000e-004	1.2900e-003	3.6800e-003	4.9700e-003	3.5000e-004	3.4400e-003	3.7900e-003	0.0000	13.2142	13.2142	3.2200e-003	0.0000	13.2948
Maximum	**0.0366**	**0.4100**	**0.3094**	**7.7000e-004**	**0.0171**	**0.0172**	**0.0343**	**4.4900e-003**	**0.0160**	**0.0205**	**0.0000**	**70.0739**	**70.0739**	**0.0144**	**0.0000**	**70.4337**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**23.69**	**0.00**	**12.68**	**22.19**	**0.00**	**5.35**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	8-9-2021	11-8-2021	0.3036	0.3036
2	11-9-2021	2-8-2022	0.2123	0.2123
3	2-9-2022	5-8-2022	0.0329	0.0329
		Highest	0.3036	0.3036

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0241	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.9000e-004	3.9000e-004	0.0000	0.0000	4.1000e-004
Energy	1.5000e-004	1.3800e-003	1.1600e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	8.1189	8.1189	2.9000e-004	9.0000e-005	8.1521
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	1.3925	0.0000	1.3925	0.0823	0.0000	3.4499
Water						0.0000	0.0000		0.0000	0.0000	0.0556	1.4827	1.5383	5.7700e-003	1.5000e-004	1.7268
Total	**0.0243**	**1.3800e-003**	**1.3600e-003**	**1.0000e-005**	**0.0000**	**1.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**1.1000e-004**	**1.4481**	**9.6020**	**11.0501**	**0.0884**	**2.4000e-004**	**13.3291**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0241	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.9000e-004	3.9000e-004	0.0000	0.0000	4.1000e-004
Energy	1.5000e-004	1.3800e-003	1.1600e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	8.1189	8.1189	2.9000e-004	9.0000e-005	8.1521
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	1.3925	0.0000	1.3925	0.0823	0.0000	3.4499
Water						0.0000	0.0000		0.0000	0.0000	0.0556	1.4827	1.5383	5.7700e-003	1.5000e-004	1.7268
Total	**0.0243**	**1.3800e-003**	**1.3600e-003**	**1.0000e-005**	**0.0000**	**1.1000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**1.1000e-004**	**1.4481**	**9.6020**	**11.0501**	**0.0884**	**2.4000e-004**	**13.3291**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

San Ysidro High School ROTC and Improvements Project - San Diego County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/9/2021	8/13/2021	6	5	
2	Site Preparation	Site Preparation	8/14/2021	8/19/2021	6	5	
3	Grading	Grading	8/20/2021	8/27/2021	6	7	
4	Trenching	Trenching	8/28/2021	9/8/2021	6	10	
5	Building Construction - ROTC	Building Construction	9/9/2021	12/29/2021	6	96	
6	Construction - Marquee Sign	Building Construction	2/10/2022	2/23/2022	5	10	
7	Paving	Paving	12/30/2021	1/19/2022	5	15	
8	Architectural Coating	Architectural Coating	1/20/2022	2/9/2022	5	15	

Acres of Grading (Site Preparation Phase): 2.5

Acres of Grading (Grading Phase): 2.5

Acres of Paving: 0.37

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,920; Non-Residential Outdoor: 2,640; Striped Parking Area: 978 (Architectural Coating – sqft)

OffRoad Equipment

San Ysidro High School ROTC and Improvements Project - San Diego County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	0.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Graders	0	0.00	187	0.41
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Trenching	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction - ROTC	Cranes	1	4.00	231	0.29
Building Construction - ROTC	Forklifts	1	6.00	89	0.20
Building Construction - ROTC	Generator Sets	0	0.00	84	0.74
Building Construction - ROTC	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction - ROTC	Welders	0	0.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Paving Equipment	0	0.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Construction - Marquee Sign	Cranes	1	4.00	231	0.29
Construction - Marquee Sign	Forklifts	0	6.00	89	0.20
Construction - Marquee Sign	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	8.00	2.00	44.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	6.00	2.00	46.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	2.00	450.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	2	6.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction - ROTC	3	16.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Construction - Marquee Sign	3	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.8600e-003	0.0000	4.8600e-003	7.4000e-004	0.0000	7.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6400e-003	0.0146	0.0147	2.0000e-005		8.1000e-004	8.1000e-004		7.8000e-004	7.8000e-004	0.0000	2.0905	2.0905	3.2000e-004	0.0000	2.0985
Total	**1.6400e-003**	**0.0146**	**0.0147**	**2.0000e-005**	**4.8600e-003**	**8.1000e-004**	**5.6700e-003**	**7.4000e-004**	**7.8000e-004**	**1.5200e-003**	**0.0000**	**2.0905**	**2.0905**	**3.2000e-004**	**0.0000**	**2.0985**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7000e-004	5.7500e-003	1.4200e-003	2.0000e-005	3.8000e-004	2.0000e-005	3.9000e-004	1.0000e-004	2.0000e-005	1.2000e-004	0.0000	1.6756	1.6756	1.5000e-004	0.0000	1.6794
Vendor	2.0000e-005	5.1000e-004	1.4000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1307	0.1307	1.0000e-005	0.0000	0.1310
Worker	7.0000e-005	5.0000e-005	5.0000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1401	0.1401	0.0000	0.0000	0.1402
Total	**2.6000e-004**	**6.3100e-003**	**2.0600e-003**	**2.0000e-005**	**5.7000e-004**	**2.0000e-005**	**5.8000e-004**	**1.5000e-004**	**2.0000e-005**	**1.7000e-004**	**0.0000**	**1.9464**	**1.9464**	**1.6000e-004**	**0.0000**	**1.9505**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.1900e-003	0.0000	2.1900e-003	3.3000e-004	0.0000	3.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6400e-003	0.0146	0.0147	2.0000e-005		8.1000e-004	8.1000e-004		7.8000e-004	7.8000e-004	0.0000	2.0905	2.0905	3.2000e-004	0.0000	2.0985
Total	**1.6400e-003**	**0.0146**	**0.0147**	**2.0000e-005**	**2.1900e-003**	**8.1000e-004**	**3.0000e-003**	**3.3000e-004**	**7.8000e-004**	**1.1100e-003**	**0.0000**	**2.0905**	**2.0905**	**3.2000e-004**	**0.0000**	**2.0985**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7000e-004	5.7500e-003	1.4200e-003	2.0000e-005	3.8000e-004	2.0000e-005	3.9000e-004	1.0000e-004	2.0000e-005	1.2000e-004	0.0000	1.6756	1.6756	1.5000e-004	0.0000	1.6794
Vendor	2.0000e-005	5.1000e-004	1.4000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1307	0.1307	1.0000e-005	0.0000	0.1310
Worker	7.0000e-005	5.0000e-005	5.0000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1401	0.1401	0.0000	0.0000	0.1402
Total	**2.6000e-004**	**6.3100e-003**	**2.0600e-003**	**2.0000e-005**	**5.7000e-004**	**2.0000e-005**	**5.8000e-004**	**1.5000e-004**	**2.0000e-005**	**1.7000e-004**	**0.0000**	**1.9464**	**1.9464**	**1.6000e-004**	**0.0000**	**1.9505**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3300e-003	0.0000	1.3300e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6000e-003	0.0196	0.0101	2.0000e-005		7.5000e-004	7.5000e-004		6.9000e-004	6.9000e-004	0.0000	2.1377	2.1377	6.9000e-004	0.0000	2.1550
Total	**1.6000e-003**	**0.0196**	**0.0101**	**2.0000e-005**	**1.3300e-003**	**7.5000e-004**	**2.0800e-003**	**1.4000e-004**	**6.9000e-004**	**8.3000e-004**	**0.0000**	**2.1377**	**2.1377**	**6.9000e-004**	**0.0000**	**2.1550**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7000e-004	6.0100e-003	1.4800e-003	2.0000e-005	3.9000e-004	2.0000e-005	4.1000e-004	1.1000e-004	2.0000e-005	1.3000e-004	0.0000	1.7517	1.7517	1.6000e-004	0.0000	1.7557
Vendor	2.0000e-005	5.1000e-004	1.4000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1307	0.1307	1.0000e-005	0.0000	0.1310
Worker	5.0000e-005	4.0000e-005	3.7000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1051	0.1051	0.0000	0.0000	0.1052
Total	**2.4000e-004**	**6.5600e-003**	**1.9900e-003**	**2.0000e-005**	**5.4000e-004**	**2.0000e-005**	**5.6000e-004**	**1.5000e-004**	**2.0000e-005**	**1.7000e-004**	**0.0000**	**1.9875**	**1.9875**	**1.7000e-004**	**0.0000**	**1.9918**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.0000e-004	0.0000	6.0000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6000e-003	0.0196	0.0101	2.0000e-005		7.5000e-004	7.5000e-004		6.9000e-004	6.9000e-004	0.0000	2.1377	2.1377	6.9000e-004	0.0000	2.1550
Total	**1.6000e-003**	**0.0196**	**0.0101**	**2.0000e-005**	**6.0000e-004**	**7.5000e-004**	**1.3500e-003**	**6.0000e-005**	**6.9000e-004**	**7.5000e-004**	**0.0000**	**2.1377**	**2.1377**	**6.9000e-004**	**0.0000**	**2.1550**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7000e-004	6.0100e-003	1.4800e-003	2.0000e-005	3.9000e-004	2.0000e-005	4.1000e-004	1.1000e-004	2.0000e-005	1.3000e-004	0.0000	1.7517	1.7517	1.6000e-004	0.0000	1.7557
Vendor	2.0000e-005	5.1000e-004	1.4000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1307	0.1307	1.0000e-005	0.0000	0.1310
Worker	5.0000e-005	4.0000e-005	3.7000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1051	0.1051	0.0000	0.0000	0.1052
Total	**2.4000e-004**	**6.5600e-003**	**1.9900e-003**	**2.0000e-005**	**5.4000e-004**	**2.0000e-005**	**5.6000e-004**	**1.5000e-004**	**2.0000e-005**	**1.7000e-004**	**0.0000**	**1.9875**	**1.9875**	**1.7000e-004**	**0.0000**	**1.9918**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.1800e-003	0.0000	4.1800e-003	1.6200e-003	0.0000	1.6200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3000e-003	0.0204	0.0206	3.0000e-005		1.1300e-003	1.1300e-003		1.0900e-003	1.0900e-003	0.0000	2.9267	2.9267	4.5000e-004	0.0000	2.9379
Total	**2.3000e-003**	**0.0204**	**0.0206**	**3.0000e-005**	**4.1800e-003**	**1.1300e-003**	**5.3100e-003**	**1.6200e-003**	**1.0900e-003**	**2.7100e-003**	**0.0000**	**2.9267**	**2.9267**	**4.5000e-004**	**0.0000**	**2.9379**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6900e-003	0.0588	0.0145	1.7000e-004	3.8500e-003	1.8000e-004	4.0300e-003	1.0600e-003	1.7000e-004	1.2300e-003	0.0000	17.1365	17.1365	1.5500e-003	0.0000	17.1751
Vendor	2.0000e-005	7.2000e-004	1.9000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1830	0.1830	1.0000e-005	0.0000	0.1834
Worker	1.0000e-004	7.0000e-005	7.0000e-004	0.0000	2.2000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1962	0.1962	1.0000e-005	0.0000	0.1963
Total	**1.8100e-003**	**0.0596**	**0.0154**	**1.7000e-004**	**4.1200e-003**	**1.8000e-004**	**4.3100e-003**	**1.1300e-003**	**1.7000e-004**	**1.3000e-003**	**0.0000**	**17.5156**	**17.5156**	**1.5700e-003**	**0.0000**	**17.5548**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.8800e-003	0.0000	1.8800e-003	7.3000e-004	0.0000	7.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3000e-003	0.0204	0.0206	3.0000e-005		1.1300e-003	1.1300e-003		1.0900e-003	1.0900e-003	0.0000	2.9267	2.9267	4.5000e-004	0.0000	2.9379
Total	**2.3000e-003**	**0.0204**	**0.0206**	**3.0000e-005**	**1.8800e-003**	**1.1300e-003**	**3.0100e-003**	**7.3000e-004**	**1.0900e-003**	**1.8200e-003**	**0.0000**	**2.9267**	**2.9267**	**4.5000e-004**	**0.0000**	**2.9379**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6900e-003	0.0588	0.0145	1.7000e-004	3.8500e-003	1.8000e-004	4.0300e-003	1.0600e-003	1.7000e-004	1.2300e-003	0.0000	17.1365	17.1365	1.5500e-003	0.0000	17.1751
Vendor	2.0000e-005	7.2000e-004	1.9000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1830	0.1830	1.0000e-005	0.0000	0.1834
Worker	1.0000e-004	7.0000e-005	7.0000e-004	0.0000	2.2000e-004	0.0000	2.3000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1962	0.1962	1.0000e-005	0.0000	0.1963
Total	**1.8100e-003**	**0.0596**	**0.0154**	**1.7000e-004**	**4.1200e-003**	**1.8000e-004**	**4.3100e-003**	**1.1300e-003**	**1.7000e-004**	**1.3000e-003**	**0.0000**	**17.5156**	**17.5156**	**1.5700e-003**	**0.0000**	**17.5548**

3.5 Trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.4000e-003	0.0142	0.0170	2.0000e-005		8.4000e-004	8.4000e-004		7.7000e-004	7.7000e-004	0.0000	2.0473	2.0473	6.6000e-004	0.0000	2.0638
Total	**1.4000e-003**	**0.0142**	**0.0170**	**2.0000e-005**		**8.4000e-004**	**8.4000e-004**		**7.7000e-004**	**7.7000e-004**	**0.0000**	**2.0473**	**2.0473**	**6.6000e-004**	**0.0000**	**2.0638**

3.5 Trenching - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	1.0300e-003	2.7000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2614	0.2614	2.0000e-005	0.0000	0.2619
Worker	1.0000e-004	7.0000e-005	7.5000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2102	0.2102	1.0000e-005	0.0000	0.2103
Total	**1.3000e-004**	**1.1000e-003**	**1.0200e-003**	**0.0000**	**3.1000e-004**	**0.0000**	**3.1000e-004**	**8.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.4716**	**0.4716**	**3.0000e-005**	**0.0000**	**0.4722**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.4000e-003	0.0142	0.0170	2.0000e-005		8.4000e-004	8.4000e-004		7.7000e-004	7.7000e-004	0.0000	2.0473	2.0473	6.6000e-004	0.0000	2.0638
Total	**1.4000e-003**	**0.0142**	**0.0170**	**2.0000e-005**		**8.4000e-004**	**8.4000e-004**		**7.7000e-004**	**7.7000e-004**	**0.0000**	**2.0473**	**2.0473**	**6.6000e-004**	**0.0000**	**2.0638**

3.5 Trenching - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	1.0300e-003	2.7000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2614	0.2614	2.0000e-005	0.0000	0.2619
Worker	1.0000e-004	7.0000e-005	7.5000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2102	0.2102	1.0000e-005	0.0000	0.2103
Total	**1.3000e-004**	**1.1000e-003**	**1.0200e-003**	**0.0000**	**3.1000e-004**	**0.0000**	**3.1000e-004**	**8.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.4716**	**0.4716**	**3.0000e-005**	**0.0000**	**0.4722**

3.6 Building Construction - ROTC - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0236	0.2498	0.1981	3.4000e-004		0.0131	0.0131		0.0121	0.0121	0.0000	30.1022	30.1022	9.7400e-003	0.0000	30.3456
Total	**0.0236**	**0.2498**	**0.1981**	**3.4000e-004**		**0.0131**	**0.0131**		**0.0121**	**0.0121**	**0.0000**	**30.1022**	**30.1022**	**9.7400e-003**	**0.0000**	**30.3456**

3.6 Building Construction - ROTC - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-004	9.8700e-003	2.6300e-003	3.0000e-005	6.4000e-004	2.0000e-005	6.6000e-004	1.8000e-004	2.0000e-005	2.0000e-004	0.0000	2.5098	2.5098	1.9000e-004	0.0000	2.5145
Worker	2.6700e-003	1.9000e-003	0.0192	6.0000e-005	6.1600e-003	4.0000e-005	6.2000e-003	1.6400e-003	4.0000e-005	1.6800e-003	0.0000	5.3800	5.3800	1.5000e-004	0.0000	5.3839
Total	**2.9700e-003**	**0.0118**	**0.0218**	**9.0000e-005**	**6.8000e-003**	**6.0000e-005**	**6.8600e-003**	**1.8200e-003**	**6.0000e-005**	**1.8800e-003**	**0.0000**	**7.8898**	**7.8898**	**3.4000e-004**	**0.0000**	**7.8984**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0236	0.2498	0.1981	3.4000e-004		0.0131	0.0131		0.0121	0.0121	0.0000	30.1022	30.1022	9.7400e-003	0.0000	30.3456
Total	**0.0236**	**0.2498**	**0.1981**	**3.4000e-004**		**0.0131**	**0.0131**		**0.0121**	**0.0121**	**0.0000**	**30.1022**	**30.1022**	**9.7400e-003**	**0.0000**	**30.3456**

3.6 Building Construction - ROTC - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-004	9.8700e-003	2.6300e-003	3.0000e-005	6.4000e-004	2.0000e-005	6.6000e-004	1.8000e-004	2.0000e-005	2.0000e-004	0.0000	2.5098	2.5098	1.9000e-004	0.0000	2.5145
Worker	2.6700e-003	1.9000e-003	0.0192	6.0000e-005	6.1600e-003	4.0000e-005	6.2000e-003	1.6400e-003	4.0000e-005	1.6800e-003	0.0000	5.3800	5.3800	1.5000e-004	0.0000	5.3839
Total	**2.9700e-003**	**0.0118**	**0.0218**	**9.0000e-005**	**6.8000e-003**	**6.0000e-005**	**6.8600e-003**	**1.8200e-003**	**6.0000e-005**	**1.8800e-003**	**0.0000**	**7.8898**	**7.8898**	**3.4000e-004**	**0.0000**	**7.8984**

3.7 Construction - Marquee Sign - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.5800e-003	0.0272	0.0271	5.0000e-005		1.3400e-003	1.3400e-003		1.2300e-003	1.2300e-003	0.0000	4.0002	4.0002	1.2900e-003	0.0000	4.0325
Total	**2.5800e-003**	**0.0272**	**0.0271**	**5.0000e-005**		**1.3400e-003**	**1.3400e-003**		**1.2300e-003**	**1.2300e-003**	**0.0000**	**4.0002**	**4.0002**	**1.2900e-003**	**0.0000**	**4.0325**

3.7 Construction - Marquee Sign - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	9.7000e-004	2.6000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2590	0.2590	2.0000e-005	0.0000	0.2594
Worker	1.6000e-004	1.1000e-004	1.1600e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3374	0.3374	1.0000e-005	0.0000	0.3377
Total	**1.9000e-004**	**1.0800e-003**	**1.4200e-003**	**0.0000**	**4.7000e-004**	**0.0000**	**4.7000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.5964**	**0.5964**	**3.0000e-005**	**0.0000**	**0.5971**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.5800e-003	0.0272	0.0271	5.0000e-005		1.3400e-003	1.3400e-003		1.2300e-003	1.2300e-003	0.0000	4.0002	4.0002	1.2900e-003	0.0000	4.0325
Total	**2.5800e-003**	**0.0272**	**0.0271**	**5.0000e-005**		**1.3400e-003**	**1.3400e-003**		**1.2300e-003**	**1.2300e-003**	**0.0000**	**4.0002**	**4.0002**	**1.2900e-003**	**0.0000**	**4.0325**

3.7 Construction - Marquee Sign - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	9.7000e-004	2.6000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2590	0.2590	2.0000e-005	0.0000	0.2594
Worker	1.6000e-004	1.1000e-004	1.1600e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3374	0.3374	1.0000e-005	0.0000	0.3377
Total	**1.9000e-004**	**1.0800e-003**	**1.4200e-003**	**0.0000**	**4.7000e-004**	**0.0000**	**4.7000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.5964**	**0.5964**	**3.0000e-005**	**0.0000**	**0.5971**

3.8 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.9000e-004	5.8900e-003	6.4000e-003	1.0000e-005		3.2000e-004	3.2000e-004		3.0000e-004	3.0000e-004	0.0000	0.8361	0.8361	2.6000e-004	0.0000	0.8427
Paving	6.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.5000e-004**	**5.8900e-003**	**6.4000e-003**	**1.0000e-005**		**3.2000e-004**	**3.2000e-004**		**3.0000e-004**	**3.0000e-004**	**0.0000**	**0.8361**	**0.8361**	**2.6000e-004**	**0.0000**	**0.8427**

3.8 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	2.1000e-004	5.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0523	0.0523	0.0000	0.0000	0.0524
Worker	3.0000e-005	2.0000e-005	2.5000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0701	0.0701	0.0000	0.0000	0.0701
Total	**4.0000e-005**	**2.3000e-004**	**3.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1223**	**0.1223**	**0.0000**	**0.0000**	**0.1225**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.9000e-004	5.8900e-003	6.4000e-003	1.0000e-005		3.2000e-004	3.2000e-004		3.0000e-004	3.0000e-004	0.0000	0.8361	0.8361	2.6000e-004	0.0000	0.8427
Paving	6.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.5000e-004**	**5.8900e-003**	**6.4000e-003**	**1.0000e-005**		**3.2000e-004**	**3.2000e-004**		**3.0000e-004**	**3.0000e-004**	**0.0000**	**0.8361**	**0.8361**	**2.6000e-004**	**0.0000**	**0.8427**

3.8 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-005	2.1000e-004	5.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0523	0.0523	0.0000	0.0000	0.0524
Worker	3.0000e-005	2.0000e-005	2.5000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0701	0.0701	0.0000	0.0000	0.0701
Total	**4.0000e-005**	**2.3000e-004**	**3.0000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1223**	**0.1223**	**0.0000**	**0.0000**	**0.1225**

3.8 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3500e-003	0.0331	0.0412	6.0000e-005		1.7200e-003	1.7200e-003		1.5800e-003	1.5800e-003	0.0000	5.4377	5.4377	1.7100e-003	0.0000	5.4805
Paving	4.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.7700e-003**	**0.0331**	**0.0412**	**6.0000e-005**		**1.7200e-003**	**1.7200e-003**		**1.5800e-003**	**1.5800e-003**	**0.0000**	**5.4377**	**5.4377**	**1.7100e-003**	**0.0000**	**5.4805**

3.8 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.2600e-003	3.4000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3367	0.3367	2.0000e-005	0.0000	0.3373
Worker	2.1000e-004	1.5000e-004	1.5100e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4387	0.4387	1.0000e-005	0.0000	0.4390
Total	**2.5000e-004**	**1.4100e-003**	**1.8500e-003**	**0.0000**	**6.1000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.7753**	**0.7753**	**3.0000e-005**	**0.0000**	**0.7762**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3500e-003	0.0331	0.0412	6.0000e-005		1.7200e-003	1.7200e-003		1.5800e-003	1.5800e-003	0.0000	5.4377	5.4377	1.7100e-003	0.0000	5.4805
Paving	4.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.7700e-003**	**0.0331**	**0.0412**	**6.0000e-005**		**1.7200e-003**	**1.7200e-003**		**1.5800e-003**	**1.5800e-003**	**0.0000**	**5.4377**	**5.4377**	**1.7100e-003**	**0.0000**	**5.4805**

3.8 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.2600e-003	3.4000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.3367	0.3367	2.0000e-005	0.0000	0.3373
Worker	2.1000e-004	1.5000e-004	1.5100e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4387	0.4387	1.0000e-005	0.0000	0.4390
Total	**2.5000e-004**	**1.4100e-003**	**1.8500e-003**	**0.0000**	**6.1000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.7753**	**0.7753**	**3.0000e-005**	**0.0000**	**0.7762**

3.9 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5300e-003	0.0106	0.0136	2.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	1.9149	1.9149	1.2000e-004	0.0000	1.9181
Total	**0.0256**	**0.0106**	**0.0136**	**2.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.2000e-004**	**0.0000**	**1.9181**

3.9 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.4600e-003	3.9000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.3885	0.3885	3.0000e-005	0.0000	0.3892
Worker	5.0000e-005	3.0000e-005	3.5000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1012	0.1012	0.0000	0.0000	0.1013
Total	**9.0000e-005**	**1.4900e-003**	**7.4000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.4897**	**0.4897**	**3.0000e-005**	**0.0000**	**0.4905**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0240					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5300e-003	0.0106	0.0136	2.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	1.9149	1.9149	1.2000e-004	0.0000	1.9181
Total	**0.0256**	**0.0106**	**0.0136**	**2.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.2000e-004**	**0.0000**	**1.9181**

3.9 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.4600e-003	3.9000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.3885	0.3885	3.0000e-005	0.0000	0.3892
Worker	5.0000e-005	3.0000e-005	3.5000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1012	0.1012	0.0000	0.0000	0.1013
Total	**9.0000e-005**	**1.4900e-003**	**7.4000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.4897**	**0.4897**	**3.0000e-005**	**0.0000**	**0.4905**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High School	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High School	9.50	7.30	7.30	77.80	17.20	5.00	75	19	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High School	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Parking Lot	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.6143	6.6143	2.7000e-004	6.0000e-005	6.6385
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.6143	6.6143	2.7000e-004	6.0000e-005	6.6385
NaturalGas Mitigated	1.5000e-004	1.3800e-003	1.1600e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5046	1.5046	3.0000e-005	3.0000e-005	1.5135
NaturalGas Unmitigated	1.5000e-004	1.3800e-003	1.1600e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5046	1.5046	3.0000e-005	3.0000e-005	1.5135

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
High School	28195.2	1.5000e-004	1.3800e-003	1.1600e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5046	1.5046	3.0000e-005	3.0000e-005	1.5135
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.5000e-004**	**1.3800e-003**	**1.1600e-003**	**1.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**1.5046**	**1.5046**	**3.0000e-005**	**3.0000e-005**	**1.5135**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
High School	28195.2	1.5000e-004	1.3800e-003	1.1600e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5046	1.5046	3.0000e-005	3.0000e-005	1.5135
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.5000e-004**	**1.3800e-003**	**1.1600e-003**	**1.0000e-005**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**1.5046**	**1.5046**	**3.0000e-005**	**3.0000e-005**	**1.5135**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	26822.4	5.4542	2.2000e-004	5.0000e-005	5.4742
Parking Lot	5705	1.1601	5.0000e-005	1.0000e-005	1.1643
Total		**6.6143**	**2.7000e-004**	**6.0000e-005**	**6.6385**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High School	26822.4	5.4542	2.2000e-004	5.0000e-005	5.4742
Parking Lot	5705	1.1601	5.0000e-005	1.0000e-005	1.1643
Total		**6.6143**	**2.7000e-004**	**6.0000e-005**	**6.6385**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0241	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.9000e-004	3.9000e-004	0.0000	0.0000	4.1000e-004
Unmitigated	0.0241	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.9000e-004	3.9000e-004	0.0000	0.0000	4.1000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.4000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0217					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.9000e-004	3.9000e-004	0.0000	0.0000	4.1000e-004
Total	**0.0241**	**0.0000**	**2.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.9000e-004**	**3.9000e-004**	**0.0000**	**0.0000**	**4.1000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.4000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0217					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.9000e-004	3.9000e-004	0.0000	0.0000	4.1000e-004
Total	**0.0241**	**0.0000**	**2.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.9000e-004**	**3.9000e-004**	**0.0000**	**0.0000**	**4.1000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.5383	5.7700e-003	1.5000e-004	1.7268
Unmitigated	1.5383	5.7700e-003	1.5000e-004	1.7268

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High School	0.17532 / 0.450824	1.5383	5.7700e-003	1.5000e-004	1.7268
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.5383**	**5.7700e-003**	**1.5000e-004**	**1.7268**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High School	0.17532 / 0.450824	1.5383	5.7700e-003	1.5000e-004	1.7268
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.5383**	**5.7700e-003**	**1.5000e-004**	**1.7268**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.3925	0.0823	0.0000	3.4499
Unmitigated	1.3925	0.0823	0.0000	3.4499

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	6.86	1.3925	0.0823	0.0000	3.4499
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1.3925**	**0.0823**	**0.0000**	**3.4499**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High School	6.86	1.3925	0.0823	0.0000	3.4499
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1.3925**	**0.0823**	**0.0000**	**3.4499**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

San Ysidro High School JROTC and Campus Improvements Project

Project Construction Energy Demand

Construction Worker Gasoline Demand

Phase	Vehicle CO_2 (MT)	Kg CO2/Gallon	Gallons
Construction	6.98	8.78	794.87
Total			**794.87**

Construction Vendor Diesel Demand

Phase	Vehicle CO_2 (MT)	Kg CO2/Gallon	Gallons
Construction	4.25	10.21	416.46
Total			**416.46**

Construction Haul Truck Diesel Demand

Phase	Vehicle CO_2 (MT)	Kg CO2/Gallon	Gallons
Construction	20.56	10.21	2,014.08
Total			**2,014.08**

Construction Equipment Diesel Demand

Phase	Equipment CO_2 (MT)	Kg CO2/Gallon	Gallons
Construction	51.49	10.21	5,043.42
Total			**5,043.42**

San Ysidro High School JROTC and Campus Improvements Project

Project Operational Energy Demand

Electricity Demand

Scenario	kWh/Year
Project Buildings	32,527.40
Marque Sign	4,489.50
Water/Wastewater	7,291.50
Total	**44,308.40**

Natural Gas Demand

Scenario	kBTu/Year
Project Buildings	28,195.20

San Ysidro High School JROTC and Campus Improvements Project
Operational Electricity

Total Electricity - Project	**kWh/yr**
Project Buildings	32,527.40
Marque Sign	4,489.50
Water/Wastewater	7,291.50
Total	**44,308.40**

Electricity Intensity Factors - Water/Wastewater

Process	**Units**	
Supply	kwh/MG	9,727
Treat	kwh/MG	111
Distribute	kwh/MG	1,272
Wastewater Treatment	kwh/MG	1,911
Total	**kwh/MG**	**13,021**

* Electricity intensity factors from CalEEMod Appendix D for SDAPCD

Electricity Demand - Water/Wastewater

	Units	**Potable Water - Indoor**	**Potable Water - Outdoor**	**Total**
Electricity Intensity Factor				
Supply	kwh/MG	9,727	9,727	N/A
Treat	kwh/MG	111	111	N/A
Distribute	kwh/MG	1,272	1,272	N/A
Wastewater Treatment	kwh/MG	1,911	-	N/A
Total	**kwh/MG**	**13,021**	**11,110**	N/A
Water Consumption - Project				
Project Water	MG/yr	0.18	0.45	0.63
Total	**MG/yr**	**0.2**	**0.5**	**0.6**
Electricity Usage - Project	**kwh/yr**	**2,283**	**5,009**	**7,291**

Attachment C

Nesting Bird Habitat and Impact Assessment

MEMORANDUM

To:	Janea Quirk, Sweetwater Union High School District
From:	Olivia Koziel, Dudek
Subject:	Nesting Bird Habitat and Impact Assessment for the San Ysidro High School Campus Improvements Project, City of San Diego, California
Date:	March 15, 2021
cc:	Joshua Saunders, Dudek
	Kathleen Dayton, Dudek
Attachment(s)	Figure 1, Nesting Bird Assessment

The purpose of this memorandum is to (a) document the results of the nesting bird habitat assessment survey for the proposed construction of a new Junior Reserve Officer's Training Corps (JROTC) and other campus improvements at San Ysidro High School (SYHS) in the community of Otay Mesa, in the City of San Diego, California; (b) to analyze the potential for nesting birds to occur on the site; (c) to characterize the project's potential impacts to nesting birds; and (d) to recommend compliance measures per the Migratory Bird Treaty Act and the California Fish and Game Code. The focus of the survey was on identifying resources on site for nesting birds and characterizing the site's suitability for nesting birds.

1 Project Location

The SYHS campus is located just south of Airway Road and west of Caliente Avenue. The project site refers to the three main areas proposed for campus improvements via construction following demolition, clearing of ornamental vegetation, and/or removal of existing portable structures. The two outdoor areas (impact areas) assessed include the proposed limits of work for the replacement of Junior Reserve Officer's Training Corps (JROTC) portable classrooms with new permanent buildings (JROTC Area), and installation of a new campus marque sign (Marquee Area). The location of these areas is depicted on Figure 1, Nesting Bird Assessment. The proposed impact areas surveyed occupy roughly 0.63 acres within the existing developed campus of SYHS. The project site is bordered by residential uses to the east, undeveloped mesa lands to the south, a canyon, and residential uses to the west, and Airway Road and State Route 905 to the north.

2 Survey Methods

An assessment survey was conducted on foot and with binoculars throughout the study area, which included the proposed project impact areas plus a 500-foot disturbance buffer surrounding each impact area. The proposed impact areas were surveyed to determine nesting habitat suitability for all nesting birds and the 500-foot buffer was surveyed for consideration of habitat suitability for only nesting raptors or other special-status bird species that typically require a larger nest avoidance buffer of up to 500 feet.

The assessment survey was conducted on December 18, 2020, from 8:15 a.m. to 11:00 a.m. by Dudek biologist Olivia Koziel. Weather conditions during the nesting bird habitat assessment were mild with temperatures ranging from 50 to 61 degrees Fahrenheit, clear skies, and 0–3 mile per hour winds. Binoculars (10 x 50) were used to aid

in detection, identification, and observation of wildlife species. Olivia Koziel is an experienced biologist with a degree in environmental systems with emphasis on ecology, behavior, and evolution. She can identify avian species by sight and sound and is familiar with local ecology and bird behavior. She has conducted numerous nesting bird surveys, and has experience serving as biological monitor during construction activities for numerous construction projects.

3 Results and Analysis

Existing Resources and Potential for Nesting Birds to Occur

The SYHS campus property (SYHS campus) is extensively developed and contains almost exclusively non-native, ornamental vegetation within landscaped areas. Native vegetation that is present within 500 feet of the impact areas consists of primarily disturbed coastal sage scrub (dCSS) located north of Airway Road between Airway Road and State Route 905, and a relatively small patch of riparian trees (dRIP) mixed with ornamental species within a fenced area located over 600 feet south of the Marquee Area (See Figure 1 attached). Due to the absence of native vegetation communities within the developed school campus and the level of human activity on campus, the impact areas are unlikely to support nesting of special-status bird species which typically occur in native, generally undisturbed habitats. However, there is limited potential for some special-status bird species and/or raptors to nest within the study area in the 500-foot buffer surrounding the impact areas.

The proposed impact areas surveyed and surrounding areas of SYHS campus contain several medium- and relatively large-sized ornamental trees (and one native western sycamore observed west of the Marquee Area), with an understory of pavement, ornamental shrubs, compacted dirt, or mowed grass. The potential for special-status bird species that typically prefer native habitat to nest within the proposed impact areas is very low and highly unlikely to occur.

Ornamental vegetation within the proposed impact limits and the surrounding area could potentially support nesting of primarily small bird species that are tolerant of disturbance, such as frequent human activity/presence. While less likely, taller ornamental trees could potentially support nesting of some birds of prey such as Cooper's hawks (*Accipiter cooperii*), which occasionally nest in urban areas. Cooper's hawk is a covered species in the Otay Mesa Community Plan (City of San Diego 2014).

In addition to vegetation, rafters, eaves/overhangs, and other small, sheltered, and/or elevated spaces in buildings and structures could provide suitable nesting opportunities for small birds. Proposed impact areas were assessed in terms of potential resources for nesting birds, including natural habitat and manmade structures.

JROTC Area

Several mature ornamental trees within the JROTC Area could potentially support nesting bird species which are well-adapted to disturbance including frequent human activity/presence. The potential for raptors to nest in this proposed impact area is low within the JROTC Area where there is constant freeway noise.

Marquee Area

The potential for both small birds and raptors to nest in the Marquee Area is very low or not expected to occur due to disturbance associated with the frequent traffic through the immediately adjacent road intersection, and the relatively small size of palm trees and pruned ornamental vegetation present.

Project Buffer

The proposed project site and surrounding 500-foot buffer area is unlikely to support nesting of most raptor species due to the highly developed nature of the site and frequent human presence/disturbance. Old stick nests were observed in stadium lights on the campus, with the nearest nest occurring roughly within 350 feet southwest of JROTC Area. According to campus staff, these stick nests have only been used by corvids (i.e. ravens or crows). Corvids are typically much more tolerant of disturbance than most raptors.

A small, roughly 0.3-acre fenced area with riparian vegetation (i.e. willow trees *[Salix spp.*] and non-native salt cedar [*Tamarix sp.*]) among ornamental trees is present roughly 640 feet south of the Marquee Area, adjacent to the parking lot. This small amount of riparian habitat is not expected to support nesting of special status riparian birds due to its small size, proximity to development and frequent human-caused disturbance, and isolation from other riparian habitat. As with other vegetation in the study area, the vegetation could potentially support common small bird species that are tolerant of some level of disturbance.

Coastal California gnatcatcher *(Polioptila californica californica*) (California gnatcatcher) is a special-status species that nests within coastal sage scrub habitat. This species is federally threatened, a California Species of Special Concern, and is covered in the Otay Mesa Community Plan (City of San Diego 2014). Coastal sage scrub is present north of Airway Road, north of the JROTC Area, between Airway Road and State Route 905. The native habitat becomes more disturbed east of this, with a relatively high cover of non-native mustard interspersed with the coastal sage scrub vegetation. During the site visit, a California gnatcatcher was heard calling and seen foraging within the mustard and shrubs just north of Airway Road, approximately 230 feet north of the Marquee Area. Airway Road is frequented by vehicle and pedestrian traffic and may act as a barrier between the potentially suitable coastal sage scrub habitat and the SYHS campus which lacks native vegetation communities and therefore lacks suitable nesting habitat for the species. California gnatcatcher has a low potential to nest within the 500-foot buffer of the Marquee Area or the JROTC Area, in coastal sage scrub habitat north of Airport Road. The species is not expected to nest within the impact areas or elsewhere within the remainder of the study area. Although the species was observed foraging within the project buffer, the potential for the species to nest within the study area overall is very low. The coastal sage scrub habitat that occurs within the project buffer is adjacent to busy, loud roads including State Route 905 to the north, and is lower quality habitat than coastal sage scrub that is available in the nearby vicinity outside of the study area, for example, west of the SYHS sports fields. For these reasons, focused surveys for California gnatcatcher are not a recommended compliance measure.

A northern harrier *(Circus hudsonius)* was observed flying and passing through the project buffer southwest of the campus boundary and near the softball field. This species is a California Species of Special Concern and is covered (nesting) in the Otay Mesa Community Plan (City of San Diego 2014). While northern harrier may forage in areas of open grassland adjacent to SYHS, the species is not expected to nest in the study area due to its sensitivity to disturbance (USFWS 2001). Northern harriers are not likely to nest near buildings and human activity, and thus the

species is not expected to nest near the SYHS campus (Combs-Beattie 1993). No specific compliance measures are recommended for this species.

One sensitive species that does not necessarily prefer native habitats for nesting and is known to occur in the region is the burrowing owl (*Athene cunicularia*). This species is a U.S. Fish and Wildlife Service Bird of Conservation Concern, California Species of Special Concern, and is covered in the Otay Mesa Community Plan (City of San Diego 2014). Potential for nesting burrowing owls to occur is low overall within the study area and is not expected within the impact areas. Burrowing owls would be most likely to occur in the undeveloped lots south of the SYHS campus. California ground squirrel *(Spermophilus beecheyi)* activity was observed in the southern and western areas of the campus, and in greater concentration south of the campus on undeveloped land. California ground squirrels excavate burrows that may subsequently be used by burrowing owls for shelter or nesting. The most suitable resource with potential to support nesting of burrowing owls is located outside of the study area (i.e., outside of the 500-foot buffer area around proposed work limits), where dirt berms along the eastern and western sides of a line of eucalyptus trees (*Eucalyptus sp.*) overlook open areas of non-native grassland. These areas occur south of the SYHS campus and southwest of the southern terminus of Caliente Avenue. Several ground squirrels were observed on the eastern berm in this area. The nearest known burrowing owl occurrence is roughly 1.5 miles east of the SYHS campus and was recorded in 2005 (CDFW 2021). The rest of study area is developed or heavily landscaped and is subject to frequent maintenance and other disturbance due to human activity, or does not provide suitable open habitat for foraging, and therefore does not represent suitable habitat for burrowing owls.

A total of 17 bird species were observed in the survey area, including both the impact areas and the 500-foot buffer, during the nesting habitat assessment. These include Anna's hummingbird *(Calypte anna)*, northern harrier, northern flicker *(Colaptes auratus)*, rock pigeon (rock dove) *(Columba livia)*, common raven *(Corvus corax)*, American kestrel, house finch *(Haemorhous mexicanus)*, song sparrow *(Melospiza melodia)*, California towhee *(Melozone crissalis*), northern mockingbird *(Mimus polyglottos)*, coastal California gnatcatcher, ruby-crowned kinglet *(Regulus calendula)*, black phoebe *(Sayornis nigricans)*, yellow-rumped warbler *(Setophaga coronata)*, lesser goldfinch *(Spinus psaltria*), European starling *(Sturnus vulgaris)*, and white-crowned sparrow *(Zonotrichia leucophrys*). Two special-status bird species, coastal California gnatcatcher and northern harrier, were observed during the site visit. No special-status species were observed within impact areas.

Potential Impacts to Nesting Birds

Potential direct impacts to nesting birds could occur as a result of this project if suitable nesting habitat, including existing structures or vegetation, are demolished or removed during the bird breeding season (February 15 to September 15 for non-raptor species, and January 15 to July 31 for raptors).

Potential indirect impacts that could occur to nesting birds resulting from project activities include disturbance due to excessive and loud construction noise. Human activity typically occurs frequently within the proposed project area, so although disturbance due to human presence would be a potential impact to nesting birds, there would not be a significant change from current conditions.

If the compliance measures described below are implemented, no significant impacts to nesting birds would be expected to occur because of implementation of the proposed project.

Recommended Compliance Measures

To avoid any direct impacts to nesting birds (including raptors) protected under the Migratory Bird Treaty Act and the California Fish and Game Code, removal of habitat that may support active nests in the proposed areas of disturbance should occur outside of the breeding season (January 15 to September 15).

If removal of vegetation and/or structures in the proposed area of disturbance for the JROTC Area must occur during the bird breeding season, a qualified biologist shall conduct a pre-construction survey to determine the presence or absence of nesting birds within the proposed area of disturbance. The pre-construction survey shall be conducted no more than 48 hours prior to the start of construction activities (including demolition and removal of vegetation).

If an active nest is detected, an appropriate avoidance buffer would need to be established surrounding the active nest in which no construction activities would be allowed to take place. Avoidance buffers vary in size depending on species and environmental factors and may be as small as 30 feet for some passerines, to 500 feet for raptors. A clearly marked avoidance buffer would remain in place until the nest is no longer active.

No additional measures would be needed to avoid impacts to nesting birds.

4 Conclusion

Ornamental vegetation and existing structures present within the surveyed area have the potential to support nesting of primarily common small bird species. Raptors or special-status bird species are not expected to nest within the proposed impact areas. Especially during times when school is in session in person, nesting potential would be limited to species that are tolerant of frequent disturbance by human presence. There is moderate potential for common small birds to nest within the JROTC Area, and very low potential for nesting to occur within the Marquee Area.

With implementation of the recommended measures, no significant impacts to nesting birds would be expected to occur because of implementation of the proposed project.

If there are any questions regarding the contents of this report, please contact me at 760.557.0545 or via email at okoziel@dudek.com.

5 Literature Cited

California Department of Fish and Game (CDFG). 2012. Staff Report on Burrowing Owl Mitigation. March 7, 2012.

California Department of Fish and Wildlife (CDFW). 2021. California Natural Diversity Database (CNDDB) Maps and Data. *BIOS Viewer 5.94.01*. https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data#43018408-cnddb-in-bios.

City of San Diego. 1998. *Final Multiple Species Conservation Program (MSCP) Plan*. August 1998. https://www.sandiegocounty.gov/content/dam/sdc/pds/mscp/docs/SCMSCP/FinalMSCPProgramPlan.pdf.

City of San Diego. 2014. *Otay Mesa Community Plan*. March 2014. Accessed January 12, 2021. https://www.sandiego.gov/sites/default/files/otay_mesa_cmmty_plan_update_final-central_village_cpa.pdf.

Combs-Beattie, K. 1993. M.S. Thesis: Ecology, Habitat Use Patterns and Management Needs of Short-eared Owls and Northern Harriers on Nantucket Island, Massachusetts. University of Massachusetts - Amherst.

United States Fish and Wildlife Service (USFWS). 2001. *Northern Harrier Habitat Model*. May 2001. https://www.fws.gov/r5gomp/gom/habitatstudy/metadata/northern_harrier_model.htm#:~:text=Nesting.,either%20dry%20or%20wetland%20sites.

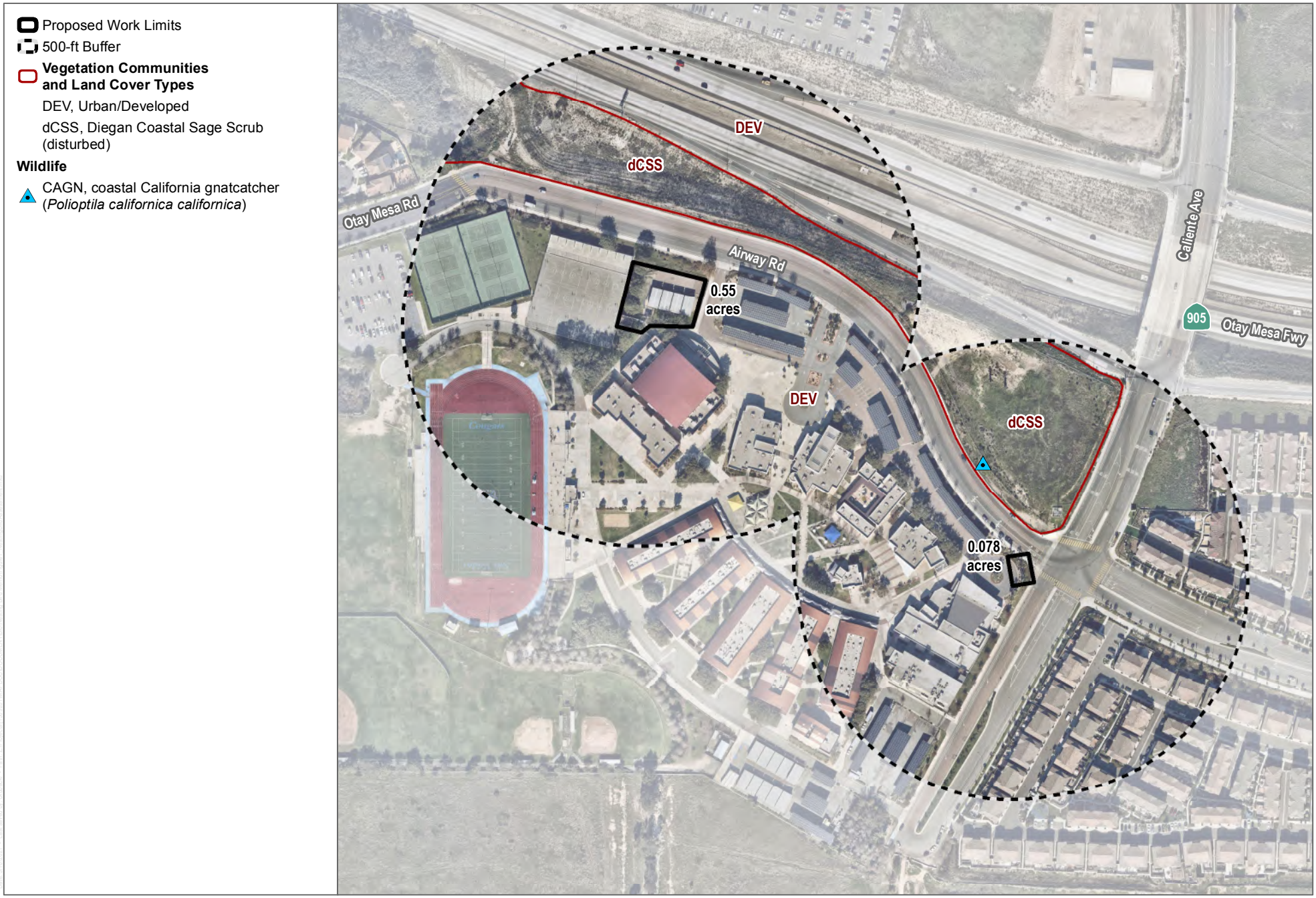


FIGURE 1

Nesting Bird Assessment

San Ysidro High School

Attachment D

Acoustical Assessment

MEMORANDUM

To:	Janea Quirk, Sweetwater Union High School District
From:	Connor Burke and Mark Storm, Dudek
Subject:	Acoustical Assessment for the Campus Improvements at San Ysidro High School, City of San Diego, California
Date:	March 15, 2021
cc:	Joshua Saunders, Dudek
Attachment(s)	Appendix A, Construction Noise Modeling Input and Output Appendix B, Facility HVAC Noise Prediction

The purpose of this memorandum is to document the existing setting and results of the acoustical assessment prepared for the proposed construction and operation of a new Junior Reserve Officer's Training Corps (JROTC) building and yards and other campus improvements at San Ysidro High School (SYHS) in the community of Otay Mesa, in the City of San Diego, California. The acoustical assessment results are presented in the context of City of San Diego thresholds for determining significance for noise.

1 Existing Setting

A brief background on the fundamentals of environmental acoustics clarifies how humans perceive various sound levels. Although extremely loud noises can cause temporary or permanent hearing damage, the primary environmental impact of noise is annoyance. The objectionable characteristic of noise, understood to be unwanted sound, often refers to its loudness. Loudness represents the intensity of the sound wave, and its amplitude with respect to a reference quantity (typically, the threshold of average healthy human hearing) can be expressed in decibels (dB). Decibels are calculated on a logarithmic scale; thus, a 10 dB increase in sound power represents a 10-fold increase in acoustic energy or intensity, while a 20 dB increase represents a 100-fold increase in intensity.

The A-weighting scale commonly used for environmental noise assessment is a set of frequency-dependent decibel adjustments applied to a "flat" or unweighted sound level measurement as a way to mimic typical human hearing response; hence, A-weighted sound levels are thus noted with "dBA" as a descriptor. In general, human sound perception is such that a change in sound level of three (3) dB in a normal outdoor setting is barely noticeable, while a change of 5 dB is clearly noticeable (Caltrans 2013). A change of 10 dB is perceived as a doubling (or halving, if -10 dB) of sound level. Sustained exposure to noise levels greater than 85 dBA can cause temporary or permanent hearing loss and is the basis for hearing-related worker protections as regulated by the Occupational Safety and Health Administration (OSHA).

Ambient environmental noise levels can be characterized by several different descriptors. The energy-equivalent sound level (Leq) describes the energy-averaged dB level for a variable sound environment or source over a specified period of time; for instance, the Leq12hr value in dB represents the constant dB value having the same energy content as the time-varying energy over the same 12-hour period. Other descriptors of noise incorporate a weighting system that accounts for human's susceptibility to noise irritations at night. By way of example,

Community Noise Equivalent Level (CNEL) is an expression of cumulative noise exposure over a 24-hour period, similar to a 24-hour Leq value but with two important differences: 1) a 5 dB penalty added to sound during evening hours (7:00 p.m. to 10:00 p.m.), and 2) a 10 dB penalty added to sound during nighttime hours (10:00 p.m. to 7:00 a.m.). Since CNEL is an energy-averaged noise level with these temporal adjustments, it is possible that an area could experience sporadic loud noise levels above 65 dBA and, as a consequence of energy-averaging or dilution across the entire 24-hour period, still result in lower than 65 dBA over the 24-hour period.

Residences adjacent to San Ysidro High School are within the City of San Diego, and therefore the City of San Diego Noise Element and Noise Ordinance govern noise levels at these residential properties. The City has an exterior noise level standard of 65 dB CNEL for noise-sensitive uses. The City noise ordinance regarding construction prohibits construction in the period from 7 PM to 7 AM weekdays and Saturdays, and always on Sundays and Federal Holidays. The noise ordinance also places a noise level restriction of 75 dBA Leq12-hr (Leq12hr) for construction noise at residential property lines adjacent to construction activities, for construction occurring between 7 AM and 7 PM (City of San Diego 2010).

2 Results and Analysis

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standard of other agencies?

Construction activities would occur during the City's allowable hours of operation. The noise levels generated by construction equipment would vary depending upon factors such as the type and specific model of the equipment, the operation being performed and the condition of the equipment. The average sound level of the construction activity also depends upon the amount of time that the equipment operates and the intensity of the construction during the time. Construction at the proposed JROTC building would involve several phases including demolition, site preparation, grading, trenching, building construction, and paving. Construction equipment would include standard equipment such as graders, backhoes, loaders, dozers, water trucks, cement trucks, pavers, rollers, and miscellaneous trucks. The highest noise levels from construction are predicted to occur during demolition activities when noise levels from construction would be as high as 61 dBA Leq12-hr at the nearest existing residences, approximately 580 feet away from the edge of the JROTC building construction area.

A Microsoft Excel–based noise prediction model emulating and using reference data from the Federal Highway Administration Roadway Construction Noise Model (RCNM) (FHWA 2008) was used to estimate construction noise levels at the nearest occupied noise-sensitive land use. (Although the RCNM was funded and promulgated by the Federal Highway Administration, it is often used for non-roadway projects, because the same types of construction equipment used for roadway projects are often used for other types of construction.) The predictive model also considers how many hours that equipment may be on site and operating (or idling) within an established work shift. Conservatively, no topographical or structural shielding was assumed in the modeling. The RCNM has default duty-cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity

patterns. Those default duty-cycle values, also called "acoustical usage factors" and indicate what portion of time that equipment is operating (and thus making maximum noise) at full power, were used for this noise analysis, which is detailed in Appendix A, Construction Noise Modeling Input and Output, and produce the predicted results displayed in Table 1..

Table 1. Predicted Construction Noise Levels per Activity Phase at Proposed JROTC Building

Construction Phase	Leq (dBA)
	Nearest Receiver (Approximately 580')
Demolition	60.5
Site Preparation	58.8
Grading	60.5
Trenching	53.7
Building Construction	53.8
Paving	56.3

Notes: Leq = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 1, the estimated construction noise levels are predicted to be less than 61 dBA Leq over an 12- hour period at the nearest existing residences (as close as 580 feet away from the JROTC building, and are the single-family homes north west of the campus) when demolition activities take place near the northern project boundaries. Additional campus improvements are also proposed including construction of a new campus marquee. This improvement would occur as close as 175 feet away from the nearest noise sensitive receiver. This construction work would be intermittent and temporary, and it would require minimal ground disturbance resulting in noise levels as high as 68 dBA Leq over a 12- hour period. The noise levels during construction of new JROTC buildings and campus marquee would not exceed the City's 75 dBA Leq 12-hr noise level criterion; therefore, noise impacts from construction are considered **less than significant**.

Long-Term Operational

Increase of Off-Site Roadway Traffic Noise

Based on information provided by the District, the proposed campus improvements would not result in an increase in traffic noise, since the new buildings and improvements would not increase or permit an increase in the number of students, teachers, administrators, or other staff. Thus, the same number of vehicle trips would occur either with or without the Project, under existing and future traffic years, and related traffic noise would also be equivalent either with or without the Project. Therefore, impacts would be **less than significant**.

Stationary Operations Noise

The proposed project would result in the replacement of JROTC portable classrooms with new permanent buildings as described in project description. Additional campus improvements are also proposed including construction of a new campus marquee. Although the Project site would be reconfigured and modernized, the essential components of the Project (e.g., indoor classrooms, outdoor activity areas) and the nature of the activities that occur on site would be almost equivalent to existing conditions and require operation of mechanical equipment (e.g., heating, ventilating, and air-conditioning [HVAC] systems) to provide interior comfort and air quality.

Most of these noise-producing equipment or sound sources would be considered stationary or limited in mobility to a defined area. Using a Microsoft Excel–based outdoor sound propagation prediction model, project-attributed operational noise at nearby community receptors was predicted on the assumption that noise-producing equipment are point-type sources with point-source geometric divergence (i.e., 6 dB noise reduction per doubling of distance) that conservatively ignores acoustical absorption from atmospheric and ground surface effects. Please see Appendix B for quantitative details of the below predictions.

According to its mechanical roof plan and schedule, the proposed JROTC building would feature five (5) Carrier (or comparable manufacturer offering) rooftop package units (RTU), distributed across the roof. Using the overall sound levels appearing on Carrier product data sheets (Carrier, 2012), these rooftop HVAC equipment individually have a sound emission source level between 68 dBA and 70 dBA at 3 feet. The closest existing noise-sensitive residential receptor to the west of the proposed JROTC building would be as close as approximately 580 horizontal feet to what would be an arrangement of up to five concurrently operating RTU units. However, due to the higher relative elevation of the sources on the roof, and their horizontal distances away from the nearest offsite noise-sensitive receivers as modeled, the predicted sound emission level from the combination of these units would be no more than 25 dBA Leq, and would thus be compliant with the City's nighttime threshold of 45 dBA hourly Leq. Please see Appendix B, Facility HVAC Noise Prediction, for a graphical display of the predicted aggregate noise level from these rooftop units, superimposed upon an aerial image of the expected layout of the HVAC equipment, proposed Project building, and the proximate neighboring residences to the west. Under such conditions and resulting expected sound exposure levels at the nearest noise-sensitive receiving land uses, the operation of these Project air-conditioning units for the JROTC buildings would result in **less than significant** noise impacts to the community.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact. Construction activities that might expose persons to excessive groundborne vibration or groundborne noise have the potential to cause a significant impact. Groundborne vibration information related to construction and heavy equipment operation has been collected by the California Department of Transportation (Caltrans). Information from Caltrans indicates that transient vibrations (such as from demolition activity) with a peak particle velocity (PPV) of approximately 0.035 inches per second may be characterized as barely perceptible, and vibration levels of 0.24 inches per second may be characterized as distinctly perceptible (Caltrans 2013). The heavier pieces of construction equipment, such as large bulldozers or hoe rams, would have PPVs of up to approximately 0.089 inches per second at 25 feet (DOT 2006).

Groundborne vibration is typically attenuated over relatively short distances. At the nearest distance from an existing residence to the construction area (approximately 580 feet) and with the anticipated construction equipment, construction-related vibration levels would be approximately 0.0008 inches per second PPV. This vibration would be well below the threshold of "barely perceptible" level of 0.035 inches per second PPV and the threshold for distinctly perceptible level of 0.24 inches per second PPV (DOT 2006). Therefore, impacts related to groundborne vibration would be less than significant.

c) Would the project be 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 expose people residing or working in the project area to excessive noise levels?

Less than Significant Impact. The project site is located within 2 miles of Brown Field Municipal Airport and is subject to occasional overflights by helicopters, as well as commercial and general aviation aircraft. However, the San Ysidro High School campus is not located within the 60 dBA CNEL noise contour of Brown Field Municipal Airport (SDCRAA 2010) or any other public or private airfield, and is thus not subject to aircraft noise exposure in excess of regulatory limits. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels associated with aircraft. Impacts would be less than significant.

3 References

Caltrans (California Department of Transportation). 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. September 2013.

Carrier. 2012. CA16NA 018-061 Single-Stage Air Conditioner w/ Puron Refrigerant. Catalog No: CA16NA-06PD. https://resource.carrierenterprise.com/is/content/Watscocom/carrier_ca16na03600g_article_14048 16 230548_en_ss? _ga=2.123164302.489492439.1570570581-792571132.1570570581

City of San Diego. 2010. City of San Diego Municipal Code, Article 9.5: Noise Abatement and Control, Division 4: Limits. July 2010. http://docs.sandiego.gov/municode/MuniCodeChapter05/Ch05Art9.5Division04.pdf

DOT (U.S. Department of Transportation). 2006. FHWA Roadway Construction Noise Model: User's Guide. Final Report. FHWA-HEP-06-015. DOT-VNTSC-FHWA-06-02. Cambridge, Massachusetts: DOT, Research, and Innovative Technology Administration. Final Report. August 2006.

FHWA. December 8, 2008. Roadway Construction Noise Model (RCNM), Software Version 1.1. U.S. Department of Transportation, Research and Innovative Technology Administration, John A. Volpe National Transportation Systems Center, Environmental Measurement and Modeling Division. Washington, D.C.

San Diego County Regional Airport Authority (SDCRAA). 2010. Brown Field Municipal Airport Land Use Compatibility Plan. Amended December 10th.

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase, per City of San Diego = 75
allowable hours over which Leq is to be averaged (example: 12 for City of San Diego) = 12

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 12-hour Leq
Demolition	Concrete Saw	1	20	90		580	68.7	8	480	60
	Backhoe	1	40	78		580	56.7	6	360	50
	Dozer	1	40	82		580	60.7	1	60	46
							Total for Demolition Phase:			**60.5**
Site Preparation	Grader	1	40	85		580	63.7	8	480	58
	Backhoe	1	40	78		580	56.7	8	480	51
							Total for Site Preparation Phase:			**58.8**
Grading	Dozer	1	40	82		580	60.7	1	60	46
	Concrete Saw	1	20	90		580	68.7	8	480	60
	Backhoe	1	40	78		580	56.7	6	360	50
							Total for Grading Phase:			**60.5**
Trenching	Front end Loader	2	40	79		580	57.7	6	360	54
							Total for Trenching Phase:			**53.7**
Building Construction	Crane	1	16	81		580	59.7	4	240	47
	Man lift	1	20	75		580	53.7	6	360	44
	Generator	1	50	72		580	50.7	8	480	46
	Backhoe	1	40	78		580	56.7	8	480	51
							Total for Building Construction Phase:			**53.8**
Paving	Paver	1	50	77		580	55.7	7	420	50
	Concrete Mixer Truck	1	40	79		580	57.7	6	360	51
	Roller	1	20	80		580	58.7	7	420	49
	Backhoe	1	40	78		580	56.7	7	420	50
							Total for Paving Phase:			**56.3**

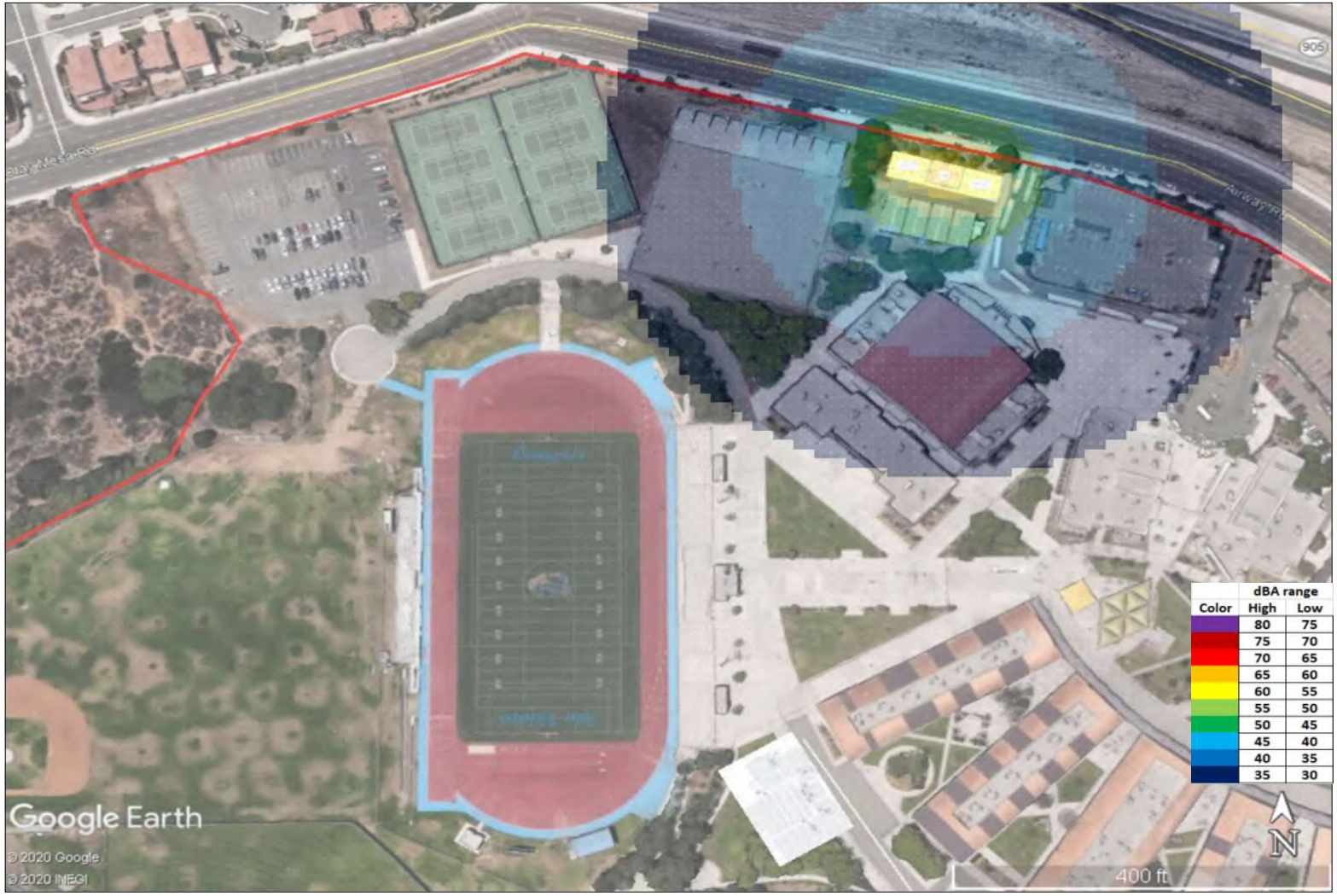
To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase, per City of San Diego = 75
allowable hours over which Leq is to be averaged (example: 12 for City of San Diego) = 12

Construction Phase	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 12-hour Leq
Campus Marquee (Caliente Ave. at Airway Rd.)	Excavator	1	40	81		175	70.1	8	480	64
	Backhoe	1	40	78		175	67.1	8	480	61
	Crane	1	16	81		175	70.1	8	480	60
	Concrete Mixer Truck	1	40	79		175	68.1	8	480	62
							Total for Campus Marquee (Caliente Ave. at Airway Rd.) Phase:			**68.4**

Equipment Description	Impact Device?	Acoustical Use Factor (%)	Lesser of or available Lmax	Spec. 721 Lmax	Measured L_{max} @50ft (dBA, slow)
All Other Equipment > 5 HP	No	50	85	85	-- N/A --
Auger Drill Rig	No	20	84	85	84
Backhoe	No	40	78	80	78
Bar Bender	No	20	80	80	-- N/A --
Blasting	Yes	-- N/A --	94	94	-- N/A --
Boring Jack Power Unit	No	50	80	80	83
Chain Saw	No	20	84	85	84
Clam Shovel (dropping)	Yes	20	87	93	87
Compactor (ground)	No	20	80	80	83
Compressor (air)	No	40	78	80	78
Concrete Batch Plant	No	15	83	83	-- N/A --
Concrete Mixer Truck	No	40	79	85	79
Concrete Pump Truck	No	20	81	82	81
Concrete Saw	No	20	90	90	90
Crane	No	16	81	85	81
Dozer	No	40	82	85	82
Drill Rig Truck	No	20	79	84	79
Drum Mixer	No	50	80	80	80
Dump Truck	No	40	76	84	76
Excavator	No	40	81	85	81
Flat Bed Truck	No	40	74	84	74
Front End Loader	No	40	79	80	79
Generator	No	50	72	72	81
Generator (<25KVA, VMS signs)	No	50	70	70	73
Gradall	No	40	83	85	83
Grader	No	40	85	85	-- N/A --
Grapple (on backhoe)	No	40	85	85	87
Horizontal Boring Hydr. Jack	No	25	80	80	82
Hydra Break Ram	Yes	10	90	90	-- N/A --
Impact Pile Driver	Yes	20	95	95	101
Jackhammer	Yes	20	85	85	89
Man Lift	No	20	75	85	75
Mounted Impact Hammer (hoe ram)	Yes	20	90	90	90
Pavement Scarafier	No	20	85	85	90
Paver	No	50	77	85	77
Pickup Truck	No	40	55	55	75
Pneumatic Tools	No	50	85	85	85
Pumps	No	50	77	77	81
Refrigerator Unit	No	100	73	82	73
Rivit Buster/chipping gun	Yes	20	79	85	79

Rock Drill	No	20	81	85	81
Roller	No	20	80	85	80
Sand Blasting (Single Nozzle)	No	20	85	85	96
Scraper	No	40	84	85	84
Shears (on backhoe)	No	40	85	85	96
Slurry Plant	No	100	78	78	78
Slurry Trenching Machine	No	50	80	82	80
Soil Mix Drill Rig	No	50	80	80	-- N/A --
Tractor	No	40	84	84	-- N/A --
Vacuum Excavator (Vac-truck)	No	40	85	85	85
Vacuum Street Sweeper	No	10	80	80	82
Ventilation Fan	No	100	79	85	79
Vibrating Hopper	No	50	85	85	87
Vibratory Concrete Mixer	No	20	80	80	80
Vibratory Pile Driver	No	20	95	95	101
Warning Horn	No	5	83	85	83
Welder / Torch	No	40	73	73	74



Output SPL Legend
(user: enter dBA values in table)

Color	dBA range High	Low
	80	75
	75	70
	70	65
	65	60
	60	55
	55	50
	50	45
	45	40
	40	35
	35	30

Selected Receptors
(user: enter rcvr tag from input map)

Tag	dBA		
ST1	#####	-1	-1
ST2	#####	-1	-1
ST3	#####	-1	-1