

MEMORANDUM

To: Tom Schwan, *Schwan Brothers Properties, LLC*
From: Adam Poll, *Dudek*
Subject: Schwan Self Storage Project
Air Quality and Greenhouse Gas Emissions Assessment
Date: June 29, 2017
cc: Jennifer Reed, *Dudek*
Attachments: A URBEMIS Output – 2011 MND Project Construction and Operational Emissions
B URBEMIS Output – Amended Project Construction and Operational Emissions

Dudek is pleased to submit this focused air quality and greenhouse gas (GHG) emissions assessment to assist Schwan Brothers Properties, LLC (Schwan Brothers) with environmental planning requirements for the proposed Schwan Self Storage Project (Project) located at 10 South Kellogg Avenue in the City of Goleta (City), California. The updated project, as described in the City's APN# 071-090-082, provides the basis for this assessment (collectively, the "Amended Project"). This memorandum estimates criteria air pollutant and GHG emissions from construction and operation of the proposed Amended Project and compares them to the originally proposed project evaluated in the *Schwan Self Storage Project Mitigated Negative Declaration (MND)* (10-MND-004), prepared by the City in October 2011 (hereinafter referred to as the "2011 MND" or "Original Project"). This assessment also compares the estimated Amended Project emissions to the Santa Barbara County Air Pollution Control District (SBCAPCD) emissions-based thresholds and the conclusions provided in the 2011 MND. The analysis contained herein is based on updated project information provided by the applicant and traffic information provided in the Associated Transportation Engineers' (ATE) *Trip Generation Comparison and Soil Export Truck Route Evaluation for the Schwan Self Storage Project – City of Goleta* memorandum (Trip Memo) (ATE 2017).

The contents and organization of this memorandum are as follows: 1) project description and background; 2) general analysis and methodology, including construction and operation assumptions; 3) air quality assessment 4) GHG emissions assessment; 5) conclusions; and 6) references cited.

1 PROJECT DESCRIPTION AND BACKGROUND

The proposed Amended Project is an update to the previously evaluated Schwan Self Storage Project located at 10 South Kellogg Avenue within the City. The existing property includes a 4,400-square foot, two-story warehouse/office, an 875-square foot garage, and a 1,750-square foot carport for a total of floor area of 7,025-square feet on a 97,061-square foot lot (inclusive of the lot of 89,628 square feet and a lease area from Union Pacific Railroad of 7,433 square feet) in the City's M-1 zone district. The property also contains several contractor storage and similar storage uses.

The Original Project includes the demolition of all existing structures and grading involving approximately 610 cubic-yards of cut and 1,950 cubic-yards of fill to prepare the site for the construction of a 3-story self-storage facility comprised of 3 separate, 3-story buildings (buildings A, B, and C) with both drive-up and interior storage units. The project also includes an office/sales space and a manager's residential unit.

The Amended Project reduces the building coverage of building B and C and adds a new basement level to all three buildings. The total number of storage units will increase from 685 units to 863 units in the Amended Project. Grading is estimated to be 13,365 cubic yards of cut and 1,950 cubic yards of fill with 11,400 cubic yards of export. The Amended Project will also reduce the total number of parking spaces to 24, from 30.

Pursuant to the assessment contained in the Trip Memo (ATE 2017), the Amended Project would generate more traffic than the Original Project associated with the increase in storage units as compared with the previously analyzed project in the 2011 MND. The Amended Project would also generate additional truck haul trips during construction due to the excavation associated with the added basement.

2 GENERAL ANALYSIS AND METHODOLOGY

The project site is located within the South Central Coast Air Basin, which includes Ventura County, Santa Barbara County, and San Luis Obispo County, and is within the jurisdictional boundaries of the SBCAPCD. Project-generated criteria air pollutant and GHG emissions are estimated using the URBEMIS Environmental Management Software (URBEMIS Version 9.2.4), pursuant to the City's request to be consistent with the analysis performed in the 2011 MND (Pearson, pers. comm. 2017).

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. Criteria air pollutants that are evaluated include reactive organic compounds (ROCs; also

referred to as volatile organic compounds (VOCs) and reactive organic gases (ROGs)), oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), particulate matter with an aerodynamic diameter less than or equal to 10 microns in size (PM₁₀), and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size (PM_{2.5}). ROCs and NO_x are important because they are precursors to ozone (O₃). Criteria air pollutant emissions associated with construction of the Amended Project and the 2011 MND were estimated for the following emission sources: operation of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. Project operational emission sources evaluated include mobile sources (vehicle trips) and area sources (consumer product use, architectural coatings, energy use, and landscape maintenance equipment).

GHGs are gases that absorb infrared radiation in the atmosphere. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature. Global climate change concerns are focused on whether human activities are leading to an enhancement of the greenhouse effect. Principal GHGs include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), O₃, and water vapor. If the atmospheric concentrations of GHGs rise, the average temperature of the lower atmosphere will gradually increase. Globally, climate change has the potential to impact numerous environmental resources though uncertain impacts related to future air temperatures and precipitation patterns. Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. Climate change is already affecting California: average temperatures have increased, leading to more extreme hot days and fewer cold nights; shifts in the water cycle have been observed, with less winter precipitation falling as snow, and both snowmelt and rainwater running off earlier in the year; sea levels have risen; and wildland fires are becoming more frequent and intense due to dry seasons that start earlier and end later (CAT 2016).

The effect each GHG has on climate change is measured as a combination of the mass of its emissions and the potential of a gas or aerosol to trap heat in the atmosphere, known as its global warming potential (GWP), which varies among GHGs. Total GHG emissions are expressed as a function of how much warming would be caused by the same mass of CO₂. Thus, GHG emissions are typically measured in terms of metric tons of CO₂ equivalent (CO₂E).¹

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 (SBCAPCD 2015a). This approach is consistent with the *Final Statement of Reasons*

¹ The CO₂E for a gas is derived by multiplying the mass of the gas by the associated GWP, such that metric tons of CO₂E = (metric tons of a GHG) × (GWP of the GHG). URBEMIS only calculates CO₂ emissions and thus, no GWP was used in this analysis.

for *Regulatory Action* for amendments to the California Environmental Quality Act (CEQA) Guidelines, which confirms that an environmental impact report or other environmental document must analyze the incremental contribution of a project to GHG levels and determine whether those emissions are cumulatively considerable (CNRA 2009).

GHG emissions associated with construction of the Amended Project were estimated for the following emission sources: operation of off-road construction equipment, on-road hauling and vendor trucks, and worker vehicles. GHG emission sources associated with operation of the Amended Project were evaluated for energy use (natural gas consumed by the project) and project-generated vehicular traffic. The results of the Amended Project were then compared to the results from the 2011 MND.

2.1 Construction Assumptions

Construction emissions were modeled for the Amended Project. The Original Project evaluated in the 2011 MND included development of 685 storage units. The Amended Project includes development of 863 storage units. Emissions for the Amended Project were estimated to determine the difference in construction emissions from the 2011 MND. Estimated emissions were based on construction information provided by the project applicant (Schwan Brothers), the previous analysis contained in the 2011 MND, and the URBEMIS input file from the 2011 MND. URBEMIS default values were utilized when project specific information was not available at this time. Construction phasing (phase type and sequence) for the Amended Project was kept consistent with the 2011 MND; however, the schedule and duration of each phase was updated to reflect the project changes. The analysis contained herein is based on the following assumptions for the Original and the Amended Projects (duration of phases is approximate):

Estimated Construction Phasing for the 2011 MND

- Grading – 30 days
- Building Construction – 160 days
- Paving – 10 days
- Application of Architectural Coatings – 20 days

Estimated Construction Phasing for Amended Project

- Grading – 52 days
- Building Construction – 213 days
- Paving – 10 days

- Application of Architectural Coatings – 29 days

The variety of construction equipment used for estimating the construction emissions for the 2011 MND and the Amended Project were based on URBEMIS defaults and is shown in Table 1, Construction Scenario Assumptions. The Amended Project assumed the same construction equipment as assumed in the 2011 MND as well as the hours of operation durations. Worker vehicle trips and vendor truck trips were also based on URBEMIS default values.

Haul truck assumptions for the Amended Project were based on information provided by the applicant and the Trip Memo (ATE 2017). Because of refinements made on the project site to accommodate the added basements, an additional 11,400 cubic yards of soil is required to be exported off-site. As provided in the Trip Memo, an average haul truck of 15 cubic yards was assumed, resulting in an estimated 1,520 one-way haul truck trips (760 round trips).

Table 1
Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Type	Quantity	Usage Hours
<i>Original 2011 MND</i>						
Grading	10	0	0	Water Truck	1	8
				Graders	1	6
				Rubber Tired Dozers	1	6
				Tractors/Loaders/Backhoes	1	7
Building Construction	94	84	0	Cranes	1	4
				Forklifts	2	6
				Tractors/Loaders/Backhoes	1	8
Paving	18	0	0	Pavers	1	7
				Tractors/Loaders/Backhoes	1	7
				Rollers	1	7
				Cement and Mortar Mixers	4	6
Architectural Coating ¹	18	0	0	NA	-	-
<i>Amended Project</i>						
Grading	10	0	0	Water Truck	1	8
				Graders	1	6
				Rubber Tired Dozers	1	6
				Tractors/Loaders/Backhoes	1	7
Building Construction	76	68	1,520	Cranes	1	4
				Forklifts	2	6
				Tractors/Loaders/Backhoes	1	8
Paving	18	0	0	Pavers	1	7
				Tractors/Loaders/Backhoes	1	7
				Rollers	1	7
				Cement and Mortar Mixers	4	6
Architectural Coating ¹	16	0	0	NA	-	-

Notes: See Attachments A and B for details.
¹ The architectural coating phase did not include construction equipment in the 2011 MND; therefore, the Amended Project maintained the same assumption.

2.2 Operation Assumptions

As previously described in Section 1, Project Description and Background, the Amended Project would include development of 863 storage units instead of the 685 storage units previously analyzed in the 2011 MND. Table 2, Operational Scenario Assumptions, presents a summary of the 2011 MND and the Amended Project’s proposed land uses, as well as an identification of the net change between the Amended Project and the 2011 MND.

Table 2
Operational Scenario Assumptions

Land Use Type	Units	Original 2011 MND	Amended Project	Net Change (Amended Project Increase)
Storage Units	Units	685	863	(178)
Parking	Spaces	32	26	6

Source: City of Goleta 2017

As shown in Table 2, the Amended Project would include an additional 168 storage units due to the basement addition and 6 fewer parking spaces compared to the 2011 MND.

Project-generated trip estimates used in this analysis were calculated based on the land use and trip generation rates identified in the Trip Memo (ATE 2017), which provided trip rates for the Amended Project and the 2011 MND. The 2011 MND air quality and GHG emissions modeling used trip generation factors for mini storage units and an apartment (for the manager’s residence) based on the Institute of Transportation Engineers (ITE) Trip Generation Manual 8th Edition. The trip generation rates used in the Trip Memo are based on mini storage units taken from the ITE Trip Generation Manual 9th Edition (ATE 2017).

3 AIR QUALITY ASSESSMENT

3.1 Thresholds of Significance

The purpose of this focused memorandum is to compare Amended Project-generated construction and operational emissions to the original 2011 MND-generated emissions as they relate to the 2011 MND original impact conclusions. For ease of reference, thresholds related to the potential for a project to generate criteria air pollutant emissions that would potentially result in a significant impact are summarized below. The relevant thresholds from the State of California’s CEQA guidelines, the SBCAPCD *Scope and Content of Air Quality Sections in Environmental Documents*, and the City’s *Environmental Thresholds and Guidelines Manual* are also presented below.

The State of California guidelines to address the significance of air quality impacts based on Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.), states that a project would have a significant environmental impact if it would:

- Violate any air quality standard or contribute substantially to an existing or projected air quality violation

As provided in the SBCAPCD's *Scope and Content of Air Quality Sections in Environmental Documents* (SBCAPCD 2015a), a project would have a significant air quality effect on the environment if operation of the project would:

- Emit (from all project sources, both stationary and mobile) more than the daily trigger for offsets or Air Quality Impact Analysis set in the SBCAPCD New Source Review Rule,² for any pollutant (i.e., 240 pounds per day for ROC or NO_x; and 80 pounds per day for PM₁₀)
- Emit 25 pounds per day or more of NO_x or ROC from motor vehicle trips only
- Cause or contribute to a violation of any California or National Ambient Air Quality Standard (except O₃)

The SBCAPCD does not currently have quantitative thresholds of significance in place for short-term construction emissions; however, the SBCAPCD uses 25 tons per year for any pollutant³ as a guideline for determining the significance of construction impacts (Barham, pers. comm. 2015).

In addition, pursuant to the City's *Environmental Thresholds and Guidelines Manual*, a significant adverse air quality impact may occur when a project, individually or cumulatively, triggers either of the following (City of Goleta 2002):

² The SBCAPCD New Source Review Rule as it existed at the time the SBCAPCD Environmental Review Guidelines were adopted in October 1995 and were subsequently revised in April 2015 (SBCAPCD 2015b).

³ The 25 tons per year guideline is based on the SBCAPCD rule for stationary source construction emissions offsets (Rule 202 D.16), which considers any pollutant (i.e., all pollutants for which an AAQS has been established by the U.S. Environmental Protection Agency or the California Air Resources Board and the precursors to such pollutants), except CO. The SBCAPCD staff recommends that for CEQA assessments for typical land use projects that all criteria air pollutants estimated, which typically include ROC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}, be compared to the guideline of 25 tons per year (Barham, pers. comm. 2015). The approach utilized in this air quality assessment is consistent with the direction provided by the SBCAPCD staff.

- Interferes with progress toward the attainment of the O₃ standard by releasing emissions which equal or exceed the established long-term quantitative thresholds for NO_x and ROC
- Equals or exceeds the state or federal ambient air quality standards for any criteria pollutant (as determined by modeling)

The City does not specify quantitative thresholds of significance for short-term construction emissions because construction emissions from land development projects are assumed to have already been accounted for in the SBCAPCD's Clean Air Plan (City of Goleta 2006). However, because the region does not meet the state standards for O₃ and PM₁₀, the City requires implementation of standard emission and dust control techniques for all construction, as outlined in General Plan (GP)/Coastal Land Use Plan (CLUP) Policy CE 12.3 and listed as mitigation measures in the City's GP/CLUP Final Environmental Impact Report (FEIR) Air Quality section (City of Goleta 2006), to ensure that these emissions remain less than significant.

3.2 Impact Analysis

3.2.1 Construction Criteria Air Pollutant Emissions Analysis

Construction of either the Amended Project or the 2011 MND would result in a temporary addition of pollutants to the local airshed. 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 emission levels can only be approximately estimated with a corresponding uncertainty in precise ambient air quality impacts.

Criteria air pollutant emissions associated with construction activity were quantified using URBEMIS. Default values provided by the program were used where detailed project information was not available. A detailed depiction of the construction schedule—including information regarding phasing, equipment used during each phase, haul trucks, vendor trucks, and worker vehicles—is included in Section 2.1, Construction Assumptions, of this memorandum.

Implementation of the project is anticipated to generate construction-related criteria air pollutant emissions from soil disturbance (fugitive dust), equipment and vehicle exhaust emissions (combustion pollutants), paving, and architectural coatings. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM₁₀ and PM_{2.5} emissions. Because the County is currently in nonattainment for the state PM₁₀ standard, standard dust control measures are required for all discretionary construction activities (regardless of the significance of the fugitive dust impacts), based on policies in the 1979 Air

Quality Attainment Plan (SBCAPCD 2015a). Exhaust from internal combustion engines used by construction equipment, haul trucks (dump trucks), vendor trucks (delivery trucks), and worker vehicles would result in emissions of ROC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}. The application of architectural coatings, such as exterior/interior paint and pavement coatings, would also produce ROC emissions; however, the contractor is required to procure architectural coatings from a supplier in compliance with the requirements of SBCAPCD Rule 323.1 (Architectural Coatings).

Table 3, Estimated Annual Construction Emissions for the 2011 MND and Amended Project, shows the estimated tons per year of construction emissions associated with the buildout of the Original Project and the Amended Project. The Amended Project’s estimated emissions were modelled using URBEMIS, which is consistent with the 2011 MND. For informational purposes, emissions identified in the original 2011 MND are provided in Table 3 as well.

Table 3
Estimated Annual Construction Emissions for the
2011 MND and Amended Project

	ROC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	<i>tons per year</i>					
<i>2011 MND for the Original Project</i>						
2007	0.04	0.34	0.18	0.00	0.14	0.04
2008	1.37	1.17	1.48	0.00	0.12	0.08
Total	1.41	1.51	1.66	0.00	0.26	0.12
<i>Amended Project</i>						
2017	0.07	0.55	0.37	0.00	1.44	0.32
2018	1.05	0.53	0.90	0.00	0.03	0.02
Total	1.12	1.08	1.27	0.00	1.47	0.34
Net Annual Project Emissions (Amended Project Increase)	0.29	0.43	0.39	0.00	(1.21)	(0.22)

Notes: See Attachments A and B for detailed results.

ROC = reactive organic compounds; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter.

As shown in Table 3, the annual construction emissions estimated in the 2011 MND for the Original Project using URBEMIS would not exceed the SBCAPCD threshold guidelines of 25 tons per year for any pollutant. Buildout of the Amended Project would result in a slight decrease in estimated annual construction emissions for ROC, NO_x, CO, and SO_x compared to the 2011 MND. However, there was an estimated increase in PM₁₀ and PM_{2.5} emissions for the Amended Project compared to the 2011 MND due to the increase in fugitive dust created from the soil export. The Amended Project’s emissions still do not exceed the SBCAPCD threshold guidelines for construction. While the Amended Project would result in a slight increase in some

construction emissions, this minor increase in construction emissions would not represent a substantial change in project-generated construction emissions and would not alter the impact significance conclusions of the previous 2011 MND.

3.2.2 Operational Criteria Air Pollutant Emissions Analysis

Following the completion of construction activities, the project would generate ROC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} emissions from mobile sources, including vehicular traffic generated by employees and customers; area sources, including the use of consumer products, architectural coatings for repainting, and landscape maintenance equipment; and energy sources, including combustion of fuels used for space and water heating. Emissions associated with project-generated daily traffic were estimated based on the trip generation estimates provided by ATE (ATE 2017) (see Section 2.2, Operation Assumptions, for details). URBEMIS default data including emission factors and trip distances were conservatively used for the model inputs.

Project-related traffic was assumed to consist of a mixture of vehicles in accordance with the model outputs for traffic. Emission factors representing the vehicle mix and emissions for the year 2019 (i.e., first full year of project operation), when the Amended Project would be in its first year of operation, was used to estimate emissions. In addition to estimating mobile source emissions, URBEMIS was also used to estimate emissions from project area and energy sources. Area sources include gasoline- and diesel-powered landscape maintenance equipment, consumer products, and architectural coatings for building maintenance. Energy sources include space and water heating, which are included in the total estimated area source emissions for the air quality analysis.

As with construction emissions, URBEMIS was used to estimate the operational emissions associated with the Amended Project. The 2011 MND results using URBEMIS are presented for informational purposes. The analysis contained herein uses emissions estimated using the current version of URBEMIS to determine the operational emissions that would result with the changes proposed in the Amended Project. Table 4, Estimated Maximum Daily Operational Emissions for the 2011 MND and Amended Project, presents the maximum daily summer or winter emissions associated with operation of the Original and the Amended Project. Details of the emission calculations are provided in Attachments A and B.

Table 4
Estimated Maximum Daily Operational Emissions for the
Original 2011 MND and Amended Project

	ROC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	<i>pounds per day</i>					
<i>2011 MND for the Original Project</i>						
Area Source Emissions ^a	0.82	0.76	2.17	0.00	0.01	0.01
Vehicular (Mobile) Source Emissions	2.60	3.01	23.07	0.01	2.71	0.52
Combined Total Emissions	3.42	3.77	25.24	0.01	2.72	0.53
<i>Vehicle Source Emissions Threshold</i>	25	25	—	—	N/A	—
Threshold Exceeded?	No	No			N/A	
<i>Area + Vehicle Source Emissions Threshold</i>	240	240			80	
Area + Vehicle Source Emissions Threshold Exceeded?	No	No			No	
<i>Amended Project</i>						
Area Source Emissions ^a	0.68	0.62	2.05	0.00	0.01	0.01
Vehicular (Mobile) Source Emissions	1.35	1.27	10.85	0.01	2.11	0.40
Combined Total Emissions	2.03	1.89	12.90	0.01	2.12	0.41
<i>Vehicle Source Emissions Threshold</i>	25	25	—	—	N/A	—
Threshold Exceeded?	No	No			N/A	
<i>Area + Vehicle Source Emissions Threshold</i>	240	240			80	
Area + Vehicle Source Emissions Threshold Exceeded?	No	No			No	
<i>Net Amended Project Emissions</i>						
2011 MND	3.42	3.77	25.24	0.01	2.72	0.53
Amended Project	2.03	1.89	12.90	0.01	2.12	0.41
Net Change in Total Emissions (Amended Project Increase)	1.39	1.88	12.34	0.00	0.60	0.12

Notes: See Attachments A and B for detailed results.

Emissions presented are the maximum daily summer or winter emissions results from URBEMIS.

ROC = reactive organic compounds; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = coarse particulate matter; PM_{2.5} = fine particulate matter, lbs/day = pounds per day.

^a Emissions associated with natural gas usage (energy source emissions) are included in the Area Source Emissions.

As shown in Table 4, the previously evaluated project in the 2011 MND was determined not to exceed any of the SBCAPCD emission thresholds. Similarly, the Amended Project would not exceed any of the SBCAPCD emission thresholds. Compared to the 2011 MND, the Amended Project would decrease all criteria pollutant emissions during operation. This can be attributed to a decrease in the trip rates compared to the 2011 MND and a more efficient vehicle fleet in 2019 compared to 2010. It should be noted that although the Trip Memo (ATE 2017) showed that the Amended Project would have higher average daily traffic than the original project, the 2011

MND modelled traffic emissions based on a higher traffic rate than what was estimated in the 2017 Trip Memo for the Amended Project.

The Amended Project would result in an overall decrease in operational emissions for pollutants with adopted significance thresholds (i.e., ROC, NO_x, CO, and PM₁₀). Therefore, the Amended Project would not represent a substantial change in operational emissions than the original 2011 MND and would not alter the impact conclusions of the previous 2011 MND.

4 GREENHOUSE GAS EMISSIONS ASSESSMENT

4.1 Thresholds of Significance

4.1.1 CEQA Guidelines

With respect to GHG emissions, the CEQA Guidelines state in Section 15064.4(a) that lead agencies should “make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate” GHG emissions. The CEQA Guidelines note that an agency may identify emissions by either selecting a “model or methodology” to quantify the emissions or by relying on “qualitative analysis or other performance based standards” (14 CCR 15000 et seq.). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment:

1. The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

In addition, Section 15064.7(c) of the CEQA Guidelines specifies that “[w]hen 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” (14 CCR 15064.7(c)). Similarly, the revisions to Appendix G, Environmental Checklist Form, which is often used as a basis for lead agencies’ selection of significance thresholds, do not prescribe specific thresholds. Rather, the CEQA Guidelines establish two new CEQA thresholds related to GHGs, and these will therefore be used to discuss significance of project impacts:

- Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
- Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

Accordingly, 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 (14 CCR 15000 et seq.).

4.1.2 Local Guidance

At this time, neither the SBCAPCD nor the City has adopted numerical thresholds of significance for GHG emissions that would apply to the proposed project. The SBCAPCD recently amended its Environmental Review Guidelines (SBCAPCD 2015b) to include GHG thresholds for stationary source land uses; however, the proposed project is not a stationary source and this guidance would not apply.⁴ The SBCAPCD, however, recommends that all projects subject to CEQA review be considered in the context of GHG emissions and climate change impacts, and that CEQA documents should include a quantification of GHG emissions from all project sources, direct and indirect, as applicable (SBCAPCD 2015a). In addition, the SBCAPCD recommends that climate change impacts be mitigated to the extent reasonably possible, whether or not they are determined to be significant.

Pursuant to direction provided by City staff in the Planning and Environmental Review Department, the City is currently referring to the Bay Area Air Quality Management District's (BAAQMD) thresholds for GHG emissions as guidance for City project-level projects. In accordance with CEQA Guidelines Sections 15064.4(b)(2) and 15064.7(c), the City has consistently relied upon Santa Barbara County's *Support for Use of BAAQMD GHG Emissions Standards* (County of Santa Barbara 2010) as the recommended basis and threshold for establishing the GHG impacts of a project. The BAAQMD/County of Santa Barbara Interim Thresholds of Significance for operational GHG emissions for projects other than stationary sources is as follows, where any of these criteria can be used to evaluate a project's GHG emissions (BAAQMD 2017):

- 1,100 MT CO₂E per year;

⁴ The SBCAPCD defines stationary source projects as "equipment, processes and operations that require an SBCAPCD permit to operate" (SBCAPCD 2015b).

- 4.6 MT CO₂E per service population per year (service population = residents + employees); or
- Compliance with a Qualified Climate Action Plan.

The per-service population guideline is intended to avoid penalizing large projects that incorporate GHG-reduction measures such that they may have high total annual GHG emissions, but would be relatively efficient, as compared to projects of similar scale. Consistent with the BAAQMD's *CEQA Air Quality Guidelines*, the construction emissions associated with the proposed project (e.g., those from off-road equipment, worker vehicles) will be estimated and reported; however, the GHG threshold applies only to the operational emissions (BAAQMD 2017). Although the BAAQMD guidance does not indicate that the short-term GHG emissions from the construction phase should be included in the emissions compared to the established threshold, it is common practice for GHG analyses performed for proposed projects in the City to amortize construction emissions over the life of the project, which is typically assumed to be 30 years, and add those emissions to the estimated annual operational emissions. Therefore, the project's construction GHG emissions are amortized over 30 years and added to operational emissions for determination of significance.

The 2011 MND used the BAAQMD bright-line threshold of 1,100 MT CO₂E per year to determine the significance of potential project-generated GHG impacts under CEQA. As such, this analysis references the BAAQMD bright-line threshold of 1,100 MT CO₂E per year.

4.2 Impact Analysis

4.2.1 Construction Greenhouse Gas Emissions Analysis

As with the air quality assessment, full buildout of the original 2011 MND and the Amended Project were evaluated to estimate the net change in GHG emissions associated with the change of the Amended Project. The construction analysis assumed buildout conditions to evaluate the change in GHG construction emissions associated with buildout of the Amended Project compared to buildout of the 2011 MND. Construction of either project would result in GHG emissions associated with use of off-road construction equipment, hauling trucks (dump trucks), vendor (material delivery) trucks, and worker vehicles. GHG emissions associated with temporary construction activity were quantified using URBEMIS. A detailed depiction of the construction schedule—including information regarding phasing, equipment utilized during each phase, haul trucks, vendor trucks, and worker vehicles—is included in Section 2.1, Construction Assumptions, of this memorandum. Emissions from on-site sources (i.e., off-road equipment) and off-site sources (i.e., hauling and vendor trucks and worker vehicles) are combined for the

purposes of this analysis; a breakdown of emissions by source is provided in Attachments A and B.

Table 5, Estimated Annual Construction Greenhouse Gas Emissions for the 2011 MND and Amended Project, presents a comparison between the GHG emissions associated with the construction of the original and the Amended Project. As previously discussed, the 2011 MND used URBEMIS to estimate construction emissions. This analysis, therefore, uses URBEMIS to accurately compare the GHG emissions generated from the original and the amended project.

Table 5
Estimated Annual Construction Greenhouse Gas Emissions for
the 2011 MND and Amended Project

	CO₂E
	<i>metric tons</i>
<i>2011 MND for the Original Project</i>	
2007	24.35
2008	134.64
Total	158.99
<i>Amended Project</i>	
2017	92.10
2018	143.63
Total	235.73
Net Annual Project Emissions (Amended Project Increase)	(76.74)

Notes: See Attachments A and B for detailed results.
 CO₂E – carbon dioxide equivalent

As shown in Table 5, the estimated GHG emissions generated during the construction of the Amended Project would be approximately 236 MT CO₂E. The Original Project previously proposed for the same location would have resulted in approximately 159 MT CO₂E.

Implementation of the Amended Project would, therefore, result in a slight increase of approximately 77 MT CO₂E in GHG emissions generated during construction. Based on the estimated GHG emissions presented in Table 5, implementation of the Amended Project would not represent a substantial change in constructions emissions and therefore, would not alter the impact conclusions of the previous 2011 MND.

4.2.2 Operational Greenhouse Gas Emissions Analysis

Operation of the 2011 MND or the Amended Project would result in GHG emissions from area sources, energy use, and mobile sources. GHG emissions associated with vehicle travel to and

from the project site were estimated using URBEMIS and were based on the trip generation estimates provided by ATE (ATE 2017) for the Amended Project. URBEMIS default values for mobile sources were used consistent with the assumptions used in the air quality impact analysis (Section 3.2.2, Operational Emissions Analysis).

Operation of gasoline-powered landscape maintenance equipment also produces GHG emissions, although minimal. The estimation of proposed non-mobile operational emissions was based on URBEMIS land use defaults and total area (i.e., square footage) of the proposed land use. Default natural gas usage factors in URBEMIS were used for proposed building operation.

The estimated operational project-generated GHG emissions from area sources (landscape maintenance), energy usage, and motor vehicles for the 2011 MND compared with operational GHG emissions of the Amended Project for 2019 (i.e., first full year of project operation) are shown in Table 6, Estimated Annual Operational Greenhouse Gas Emissions for the 2011 MND and Amended Project. The 2011 MND used URBEMIS to estimate project-generated emissions, the results of which are presented in Table 6 for informational purposes. For the purpose of this analysis, the Amended Project was modeled using the same version of URBEMIS to estimate the net emissions that would result with the change from the previously proposed project.

Table 6
Estimated Annual Operational Greenhouse Gas Emissions for
the 2011 MND and Amended Project

	CO ₂ E
	<i>metric tons per year</i>
<i>2011 MND for the Original Project</i>	
Area Sources	146.72
Mobile Sources	230.58
Amortized Construction Emissions	5.30
Total	382.60
<i>Amended Project</i>	
Area Sources	118.94
Mobile Sources	179.70
Amortized Construction Emissions	7.86
Total	306.50
Net Annual Project Emissions (Amended Project Increase)	76.10

Notes: See Attachments A and B for detailed results.
 CO₂E – carbon dioxide equivalent

The Original Project evaluated in the 2011 MND was estimated to generate 383 MT CO₂E per year including amortized construction GHG emissions. Therefore, the 2011 MND was found to be below the threshold of 1,100 MT CO₂E per year threshold. As shown in Table 6, estimated annual GHG emissions for the Amended Project in 2019 would be approximately 307 MT CO₂E per year. The Amended Project would result in a decrease of GHG emissions when compared to the 2011 MND. It should be noted that although the Trip Memo (ATE 2017) showed that the Amended Project would have higher average daily traffic than the original project, the 2011 MND modelled traffic emissions based on a higher traffic rate than what was estimated in the 2017 Trip Memo for the Amended Project. Therefore, the Amended Project would also not exceed the significance threshold of 1,100 MT CO₂E per year.

The implementation of the Amended Project would result in a decrease in GHG emissions during operation. The GHG analysis presented above would not represent a substantial change in operational emissions and therefore, would not alter the impact conclusions of the previous 2011 MND.

5 CONCLUSIONS

Criteria Air Pollutant Emissions

Construction Emissions

Construction of the Amended Project would result in a slight decrease in estimated annual construction emissions for ROC, NO_x, CO, and SO_x compared to the 2011 MND. However, there was an estimated increase in PM₁₀ and PM_{2.5} emissions for the Amended Project compared to the 2011 MND due to the increase in fugitive dust created from the soil export. The estimated construction emissions from both the 2011 MND and the Amended Project would not exceed the SBCAPCD threshold guidelines of 25 tons per year. Although the Amended Project would result in a slight increase of construction emissions associated with the increased excavation, this minor increase would not represent a substantial change in construction emissions, and therefore, would not alter conclusions of the previous 2011 MND.

Operational Emissions

Operation of the 2011 MND and Amended Project would result in criteria pollutant emissions from area sources and vehicles. Both the 2011 MND and Amended Project's operational emissions did not exceed the SBCAPCD's significance thresholds. Although the Amended Project would increase the number of storage units, the estimated emissions for all criteria pollutants would be less than the 2011 MND, mostly due to a reduction in mobile source emissions from reduced daily trips and a more efficient vehicle fleet.

As the Amended Project would result in an overall decrease in operational emissions for which significance thresholds have been adopted, this would not represent a substantial change in operational emissions, and therefore, would not alter the impact conclusions of the previous 2011 MND.

Greenhouse Gas Emissions

Construction Emissions

Construction of the 2011 MND and Amended Project would result in GHG emissions from combustion of fuels in construction equipment and vehicles. The estimated construction related GHG emissions for the Amended Project were 236 MT CO₂E compared to 159 MT CO₂E for the 2011 MND. There is not a construction only GHG significance threshold; therefore, for determining significance, the total GHG emissions during construction were amortized over the project's lifetime and added to the operational emissions. The construction of the Amended

Project would, therefore, result in a slight increase of approximately 77 MT CO₂E in GHG emissions generated during construction. The GHG analysis for the Amended Project would not represent a substantial change in constructions emissions, and therefore, would not alter the impact conclusions of the previous 2011 MND.

Operational Emissions

Construction of the Amended Project would result in a slight decrease in estimated annual operational GHG emissions compared to the 2011 MND. The Original Project evaluated in the 2011 MND concluded that the entire project would emit 383 MT CO₂E per year. The Amended Project-generated operational GHG emissions were estimated to be approximately 307 MT CO₂E per year, which represents a decrease of GHG emissions compared with the Original Project's operational emissions. The 2011 MND concluded that total combined project emissions did not exceed the BAAQMD threshold of 1,100 MT CO₂E per year threshold. Similarly, the Amended Project's estimated operational GHG emissions would not exceed the threshold.

The implementation of the Amended Project would result in a decrease in GHG operational emissions. The GHG analysis presented above would not represent a substantial change in operational emissions and therefore, would not alter the impact conclusions of the previous 2011 MND.

6 REFERENCES

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ATTACHMENT A
*URBEMIS Output –
2011 MND Construction and Operational
Emissions*

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: P:\300.Environmental\10444 Schwan Self Storage\DUDEK WORK PRODUCTS\DOCUMENTS\AQ&GHG\Project Info\07-229 Urbemis Summary 03-20-09.urb924

Project Name: Schwan Self Storage

Project Location: Santa Barbara County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2007 TOTALS (tons/year unmitigated)	0.04	0.34	0.18	0.00	0.12	0.02	0.14	0.03	0.02	0.04	26.84
2008 TOTALS (tons/year unmitigated)	1.37	1.17	1.48	0.00	0.05	0.07	0.12	0.01	0.06	0.08	148.41

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.14	0.13	0.25	0.00	0.00	0.00	161.73

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.47	0.50	4.06	0.00	0.49	0.09	254.17

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.61	0.63	4.31	0.00	0.49	0.09	415.90

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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2008	1.37	1.17	1.48	0.00	0.05	0.07	0.12	0.01	0.06	0.08	148.41
Asphalt 12/28/2007-01/11/2008	0.01	0.06	0.04	0.00	0.00	0.01	0.01	0.00	0.00	0.00	5.29
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.01	0.06	0.03	0.00	0.00	0.01	0.01	0.00	0.00	0.00	4.41
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
Paving Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67
Fine Grading 11/30/2007-01/11/2008	0.02	0.13	0.07	0.00	0.05	0.01	0.06	0.01	0.01	0.02	10.50
Fine Grading Dust	0.00	0.00	0.00	0.00	0.05	0.00	0.05	0.01	0.00	0.01	0.00
Fine Grading Off Road Diesel	0.01	0.13	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	10.11
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38
Building 01/11/2008-08/22/2008	0.15	0.98	1.34	0.00	0.00	0.06	0.06	0.00	0.05	0.05	131.44
Building Off Road Diesel	0.11	0.84	0.41	0.00	0.00	0.05	0.05	0.00	0.05	0.05	71.92
Building Vendor Trips	0.01	0.07	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.82
Building Worker Trips	0.04	0.07	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.70
Coating 08/08/2008-09/05/2008	1.19	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.18
Architectural Coating	1.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.18

Phase Assumptions

Phase: Fine Grading 11/30/2007 - 1/11/2008 - Default Fine Site Grading Description

Total Acres Disturbed: 2.23

Maximum Daily Acreage Disturbed: 0.56

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

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On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 12/28/2007 - 1/11/2008 - Default Paving Description

Acres to be Paved: 0.56

Off-Road Equipment:

- 4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 1/11/2008 - 8/22/2008 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day
- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Architectural Coating 8/8/2008 - 9/5/2008 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.01	0.13	0.11	0.00	0.00	0.00	161.48
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscape	0.01	0.00	0.14	0.00	0.00	0.00	0.25
Consumer Products	0.00						
Architectural Coatings	0.12						
TOTALS (tons/year, unmitigated)	0.14	0.13	0.25	0.00	0.00	0.00	161.73

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>	<u>CO2</u>
ITE Manual 8th Ed. Land Use 151 Mini Warehouse	0.47	0.50	4.06	0.00	0.49	0.09	254.17
TOTALS (tons/year, unmitigated)	0.47	0.50	4.06	0.00	0.49	0.09	254.17

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2010 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
ITE Manual 8th Ed. Land Use 151 Mini Warehouse		2.50	1000 sq ft	110.60	276.50	1,571.63
					276.50	1,571.63

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	46.2	1.5	98.1	0.4
Light Truck < 3750 lbs	16.7	2.4	94.0	3.6
Light Truck 3751-5750 lbs	20.4	1.0	98.5	0.5
Med Truck 5751-8500 lbs	7.5	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	73.3	26.7
Lite-Heavy Truck 10,001-14,000 lbs	1.0	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.1	0.0	27.3	72.7
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	33.3	66.7
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.7	64.9	35.1	0.0
School Bus	0.2	0.0	0.0	100.0
Motor Home	1.2	8.3	83.4	8.3

Travel Conditions

	Residential			Commuter	Commercial	
	Home-Work	Home-Shop	Home-Other		Non-Work	Customer
Urban Trip Length (miles)	9.9	5.6	6.1	5.7	4.1	5.7

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Rural Trip Length (miles)	15.0	15.0	15.0	15.0	10.0	10.0
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
ITE Manual 8th Ed. Land Use 151 Mini Warehouse				2.0	1.0	97.0

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: P:\300.Environmental\10444 Schwan Self Storage\DUDEK WORK PRODUCTS\DOCUMENTS\AQ&GHG\Project Info\07-229 Urbemis Summary 03-20-09.urb924

Project Name: Schwan Self Storage

Project Location: Santa Barbara County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2007 TOTALS (lbs/day unmitigated)	6.23	44.45	26.01	0.00	11.21	2.72	13.93	2.34	2.50	4.85	3,508.88
2008 TOTALS (lbs/day unmitigated)	114.83	54.19	41.73	0.01	11.25	3.30	14.55	2.36	3.03	5.39	5,141.44

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.82	0.76	2.17	0.00	0.01	0.01	887.61

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	2.60	2.57	21.86	0.01	2.71	0.52	1,417.65

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	3.42	3.33	24.03	0.01	2.72	0.53	2,305.26

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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Time Slice 11/30/2007-12/27/2007	3.59	29.77	15.79	0.00	11.20	1.49	12.70	2.34	1.37	3.71	2,332.85
Active Days: 20											
Fine Grading 11/30/2007-01/11/2008	3.59	29.77	15.79	0.00	11.20	1.49	12.70	2.34	1.37	3.71	2,332.85
Fine Grading Dust	0.00	0.00	0.00	0.00	11.20	0.00	11.20	2.34	0.00	2.34	0.00
Fine Grading Off Road Diesel	3.52	29.64	14.18	0.00	0.00	1.49	1.49	0.00	1.37	1.37	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.07	0.13	1.62	0.00	0.00	0.00	0.01	0.00	0.00	0.00	85.53
Time Slice 12/28/2007-12/31/2007	<u>6.23</u>	<u>44.45</u>	<u>26.01</u>	<u>0.00</u>	<u>11.21</u>	<u>2.72</u>	<u>13.93</u>	<u>2.34</u>	<u>2.50</u>	<u>4.85</u>	<u>3,508.88</u>
Active Days: 2											
Asphalt 12/28/2007-01/11/2008	2.64	14.68	10.21	0.00	0.01	1.23	1.24	0.00	1.13	1.13	1,176.03
Paving Off-Gas	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.36	14.02	7.24	0.00	0.00	1.21	1.21	0.00	1.11	1.11	979.23
Paving On Road Diesel	0.03	0.44	0.14	0.00	0.00	0.02	0.02	0.00	0.02	0.02	47.12
Paving Worker Trips	0.12	0.22	2.83	0.00	0.01	0.00	0.01	0.00	0.00	0.01	149.68
Fine Grading 11/30/2007-01/11/2008	3.59	29.77	15.79	0.00	11.20	1.49	12.70	2.34	1.37	3.71	2,332.85
Fine Grading Dust	0.00	0.00	0.00	0.00	11.20	0.00	11.20	2.34	0.00	2.34	0.00
Fine Grading Off Road Diesel	3.52	29.64	14.18	0.00	0.00	1.49	1.49	0.00	1.37	1.37	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.07	0.13	1.62	0.00	0.00	0.00	0.01	0.00	0.00	0.00	85.53

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Time Slice 1/1/2008-1/10/2008 Active Days: 8	5.87	42.01	25.05	0.00	11.21	2.58	13.80	2.34	2.37	4.72	3,508.70
Asphalt 12/28/2007-01/11/2008	2.49	13.89	9.95	0.00	0.01	1.17	1.18	0.00	1.07	1.08	1,175.91
Paving Off-Gas	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.22	13.27	7.15	0.00	0.00	1.15	1.15	0.00	1.06	1.06	979.23
Paving On Road Diesel	0.02	0.41	0.13	0.00	0.00	0.01	0.02	0.00	0.01	0.01	47.12
Paving Worker Trips	0.11	0.21	2.68	0.00	0.01	0.00	0.01	0.00	0.00	0.01	149.57
Fine Grading 11/30/2007- 01/11/2008	3.38	28.12	15.09	0.00	11.20	1.41	12.62	2.34	1.30	3.64	2,332.78
Fine Grading Dust	0.00	0.00	0.00	0.00	11.20	0.00	11.20	2.34	0.00	2.34	0.00
Fine Grading Off Road Diesel	3.31	28.00	13.56	0.00	0.00	1.41	1.41	0.00	1.30	1.30	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.07	0.12	1.53	0.00	0.00	0.00	0.01	0.00	0.00	0.00	85.47

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Time Slice 1/11/2008-1/11/2008	7.79	<u>54.19</u>	<u>41.73</u>	<u>0.01</u>	<u>11.25</u>	<u>3.30</u>	<u>14.55</u>	<u>2.36</u>	<u>3.03</u>	<u>5.39</u>	<u>5,141.44</u>
Active Days: 1											
Asphalt 12/28/2007-01/11/2008	2.49	13.89	9.95	0.00	0.01	1.17	1.18	0.00	1.07	1.08	1,175.91
Paving Off-Gas	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.22	13.27	7.15	0.00	0.00	1.15	1.15	0.00	1.06	1.06	979.23
Paving On Road Diesel	0.02	0.41	0.13	0.00	0.00	0.01	0.02	0.00	0.01	0.01	47.12
Paving Worker Trips	0.11	0.21	2.68	0.00	0.01	0.00	0.01	0.00	0.00	0.01	149.57
Building 01/11/2008-08/22/2008	1.92	12.19	16.69	0.01	0.04	0.72	0.75	0.01	0.66	0.67	1,632.75
Building Off Road Diesel	1.39	10.47	5.09	0.00	0.00	0.67	0.67	0.00	0.61	0.61	893.39
Building Vendor Trips	0.07	0.88	0.74	0.00	0.01	0.03	0.04	0.00	0.03	0.03	134.39
Building Worker Trips	0.46	0.83	10.85	0.01	0.03	0.02	0.05	0.01	0.02	0.03	604.97
Fine Grading 11/30/2007-01/11/2008	3.38	28.12	15.09	0.00	11.20	1.41	12.62	2.34	1.30	3.64	2,332.78
Fine Grading Dust	0.00	0.00	0.00	0.00	11.20	0.00	11.20	2.34	0.00	2.34	0.00
Fine Grading Off Road Diesel	3.31	28.00	13.56	0.00	0.00	1.41	1.41	0.00	1.30	1.30	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.07	0.12	1.53	0.00	0.00	0.00	0.01	0.00	0.00	0.00	85.47
Time Slice 1/14/2008-8/7/2008	1.92	12.19	16.69	0.01	0.04	0.72	0.75	0.01	0.66	0.67	1,632.75
Active Days: 149											
Building 01/11/2008-08/22/2008	1.92	12.19	16.69	0.01	0.04	0.72	0.75	0.01	0.66	0.67	1,632.75
Building Off Road Diesel	1.39	10.47	5.09	0.00	0.00	0.67	0.67	0.00	0.61	0.61	893.39
Building Vendor Trips	0.07	0.88	0.74	0.00	0.01	0.03	0.04	0.00	0.03	0.03	134.39
Building Worker Trips	0.46	0.83	10.85	0.01	0.03	0.02	0.05	0.01	0.02	0.03	604.97

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Time Slice 8/8/2008-8/22/2008	114.83	12.34	18.71	0.01	0.04	0.72	0.76	0.02	0.66	0.68	1,745.28
Active Days: 11											
Building 01/11/2008-08/22/2008	1.92	12.19	16.69	0.01	0.04	0.72	0.75	0.01	0.66	0.67	1,632.75
Building Off Road Diesel	1.39	10.47	5.09	0.00	0.00	0.67	0.67	0.00	0.61	0.61	893.39
Building Vendor Trips	0.07	0.88	0.74	0.00	0.01	0.03	0.04	0.00	0.03	0.03	134.39
Building Worker Trips	0.46	0.83	10.85	0.01	0.03	0.02	0.05	0.01	0.02	0.03	604.97
Coating 08/08/2008-09/05/2008	112.91	0.15	2.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	112.53
Architectural Coating	112.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.09	0.15	2.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	112.53
Time Slice 8/25/2008-9/5/2008	112.91	0.15	2.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	112.53
Active Days: 10											
Coating 08/08/2008-09/05/2008	112.91	0.15	2.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	112.53
Architectural Coating	112.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.09	0.15	2.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	112.53

Phase Assumptions

- Phase: Fine Grading 11/30/2007 - 1/11/2008 - Default Fine Site Grading Description
- Total Acres Disturbed: 2.23
- Maximum Daily Acreage Disturbed: 0.56
- Fugitive Dust Level of Detail: Default
- 20 lbs per acre-day
- On Road Truck Travel (VMT): 0
- Off-Road Equipment:
 - 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
 - 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
 - 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
 - 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

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Phase: Paving 12/28/2007 - 1/11/2008 - Default Paving Description

Acres to be Paved: 0.56

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 1/11/2008 - 8/22/2008 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Architectural Coating 8/8/2008 - 9/5/2008 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.05	0.74	0.62	0.00	0.00	0.00	884.80
Hearth - No Summer Emissions							
Landscape	0.12	0.02	1.55	0.00	0.01	0.01	2.81
Consumer Products	0.00						
Architectural Coatings	0.65						
TOTALS (lbs/day, unmitigated)	0.82	0.76	2.17	0.00	0.01	0.01	887.61

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>	<u>CO2</u>
ITE Manual 8th Ed. Land Use 151 Mini Warehouse	2.60	2.57	21.86	0.01	2.71	0.52	1,417.65
TOTALS (lbs/day, unmitigated)	2.60	2.57	21.86	0.01	2.71	0.52	1,417.65

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2010 Temperature (F): 75 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
ITE Manual 8th Ed. Land Use 151 Mini Warehouse		2.50	1000 sq ft	110.60	276.50	1,571.63
					276.50	1,571.63

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	46.2	1.5	98.1	0.4
Light Truck < 3750 lbs	16.7	2.4	94.0	3.6
Light Truck 3751-5750 lbs	20.4	1.0	98.5	0.5
Med Truck 5751-8500 lbs	7.5	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	73.3	26.7
Lite-Heavy Truck 10,001-14,000 lbs	1.0	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.1	0.0	27.3	72.7
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	33.3	66.7
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.7	64.9	35.1	0.0
School Bus	0.2	0.0	0.0	100.0
Motor Home	1.2	8.3	83.4	8.3

Travel Conditions

	Residential			Commuter	Commercial	
	Home-Work	Home-Shop	Home-Other		Non-Work	Customer
Urban Trip Length (miles)	9.9	5.6	6.1	5.7	4.1	5.7

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Rural Trip Length (miles)	15.0	15.0	15.0	15.0	10.0	10.0
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
ITE Manual 8th Ed. Land Use 151 Mini Warehouse				2.0	1.0	97.0

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: P:\300.Environmental\10444 Schwan Self Storage\DUDEK WORK PRODUCTS\DOCUMENTS\AQ&GHG\Project Info\07-229 Urbemis Summary 03-20-09.urb924

Project Name: Schwan Self Storage

Project Location: Santa Barbara County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2007 TOTALS (lbs/day unmitigated)	6.23	44.45	26.01	0.00	11.21	2.72	13.93	2.34	2.50	4.85	3,508.88
2008 TOTALS (lbs/day unmitigated)	114.83	54.19	41.73	0.01	11.25	3.30	14.55	2.36	3.03	5.39	5,141.44

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.70	0.74	0.62	0.00	0.00	0.00	884.80

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	2.51	3.01	23.07	0.01	2.71	0.52	1,342.87

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	3.21	3.75	23.69	0.01	2.71	0.52	2,227.67

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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Time Slice 11/30/2007-12/27/2007	3.59	29.77	15.79	0.00	11.20	1.49	12.70	2.34	1.37	3.71	2,332.85
Active Days: 20											
Fine Grading 11/30/2007-01/11/2008	3.59	29.77	15.79	0.00	11.20	1.49	12.70	2.34	1.37	3.71	2,332.85
Fine Grading Dust	0.00	0.00	0.00	0.00	11.20	0.00	11.20	2.34	0.00	2.34	0.00
Fine Grading Off Road Diesel	3.52	29.64	14.18	0.00	0.00	1.49	1.49	0.00	1.37	1.37	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.07	0.13	1.62	0.00	0.00	0.00	0.01	0.00	0.00	0.00	85.53
Time Slice 12/28/2007-12/31/2007	<u>6.23</u>	<u>44.45</u>	<u>26.01</u>	<u>0.00</u>	<u>11.21</u>	<u>2.72</u>	<u>13.93</u>	<u>2.34</u>	<u>2.50</u>	<u>4.85</u>	<u>3,508.88</u>
Active Days: 2											
Asphalt 12/28/2007-01/11/2008	2.64	14.68	10.21	0.00	0.01	1.23	1.24	0.00	1.13	1.13	1,176.03
Paving Off-Gas	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.36	14.02	7.24	0.00	0.00	1.21	1.21	0.00	1.11	1.11	979.23
Paving On Road Diesel	0.03	0.44	0.14	0.00	0.00	0.02	0.02	0.00	0.02	0.02	47.12
Paving Worker Trips	0.12	0.22	2.83	0.00	0.01	0.00	0.01	0.00	0.00	0.01	149.68
Fine Grading 11/30/2007-01/11/2008	3.59	29.77	15.79	0.00	11.20	1.49	12.70	2.34	1.37	3.71	2,332.85
Fine Grading Dust	0.00	0.00	0.00	0.00	11.20	0.00	11.20	2.34	0.00	2.34	0.00
Fine Grading Off Road Diesel	3.52	29.64	14.18	0.00	0.00	1.49	1.49	0.00	1.37	1.37	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.07	0.13	1.62	0.00	0.00	0.00	0.01	0.00	0.00	0.00	85.53

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Time Slice 1/1/2008-1/10/2008 Active Days: 8	5.87	42.01	25.05	0.00	11.21	2.58	13.80	2.34	2.37	4.72	3,508.70
Asphalt 12/28/2007-01/11/2008	2.49	13.89	9.95	0.00	0.01	1.17	1.18	0.00	1.07	1.08	1,175.91
Paving Off-Gas	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.22	13.27	7.15	0.00	0.00	1.15	1.15	0.00	1.06	1.06	979.23
Paving On Road Diesel	0.02	0.41	0.13	0.00	0.00	0.01	0.02	0.00	0.01	0.01	47.12
Paving Worker Trips	0.11	0.21	2.68	0.00	0.01	0.00	0.01	0.00	0.00	0.01	149.57
Fine Grading 11/30/2007- 01/11/2008	3.38	28.12	15.09	0.00	11.20	1.41	12.62	2.34	1.30	3.64	2,332.78
Fine Grading Dust	0.00	0.00	0.00	0.00	11.20	0.00	11.20	2.34	0.00	2.34	0.00
Fine Grading Off Road Diesel	3.31	28.00	13.56	0.00	0.00	1.41	1.41	0.00	1.30	1.30	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.07	0.12	1.53	0.00	0.00	0.00	0.01	0.00	0.00	0.00	85.47

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Time Slice 1/11/2008-1/11/2008	7.79	<u>54.19</u>	<u>41.73</u>	<u>0.01</u>	<u>11.25</u>	<u>3.30</u>	<u>14.55</u>	<u>2.36</u>	<u>3.03</u>	<u>5.39</u>	<u>5,141.44</u>
Active Days: 1											
Asphalt 12/28/2007-01/11/2008	2.49	13.89	9.95	0.00	0.01	1.17	1.18	0.00	1.07	1.08	1,175.91
Paving Off-Gas	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.22	13.27	7.15	0.00	0.00	1.15	1.15	0.00	1.06	1.06	979.23
Paving On Road Diesel	0.02	0.41	0.13	0.00	0.00	0.01	0.02	0.00	0.01	0.01	47.12
Paving Worker Trips	0.11	0.21	2.68	0.00	0.01	0.00	0.01	0.00	0.00	0.01	149.57
Building 01/11/2008-08/22/2008	1.92	12.19	16.69	0.01	0.04	0.72	0.75	0.01	0.66	0.67	1,632.75
Building Off Road Diesel	1.39	10.47	5.09	0.00	0.00	0.67	0.67	0.00	0.61	0.61	893.39
Building Vendor Trips	0.07	0.88	0.74	0.00	0.01	0.03	0.04	0.00	0.03	0.03	134.39
Building Worker Trips	0.46	0.83	10.85	0.01	0.03	0.02	0.05	0.01	0.02	0.03	604.97
Fine Grading 11/30/2007-01/11/2008	3.38	28.12	15.09	0.00	11.20	1.41	12.62	2.34	1.30	3.64	2,332.78
Fine Grading Dust	0.00	0.00	0.00	0.00	11.20	0.00	11.20	2.34	0.00	2.34	0.00
Fine Grading Off Road Diesel	3.31	28.00	13.56	0.00	0.00	1.41	1.41	0.00	1.30	1.30	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.07	0.12	1.53	0.00	0.00	0.00	0.01	0.00	0.00	0.00	85.47
Time Slice 1/14/2008-8/7/2008	1.92	12.19	16.69	0.01	0.04	0.72	0.75	0.01	0.66	0.67	1,632.75
Active Days: 149											
Building 01/11/2008-08/22/2008	1.92	12.19	16.69	0.01	0.04	0.72	0.75	0.01	0.66	0.67	1,632.75
Building Off Road Diesel	1.39	10.47	5.09	0.00	0.00	0.67	0.67	0.00	0.61	0.61	893.39
Building Vendor Trips	0.07	0.88	0.74	0.00	0.01	0.03	0.04	0.00	0.03	0.03	134.39
Building Worker Trips	0.46	0.83	10.85	0.01	0.03	0.02	0.05	0.01	0.02	0.03	604.97

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Time Slice 8/8/2008-8/22/2008	114.83	12.34	18.71	0.01	0.04	0.72	0.76	0.02	0.66	0.68	1,745.28
Active Days: 11											
Building 01/11/2008-08/22/2008	1.92	12.19	16.69	0.01	0.04	0.72	0.75	0.01	0.66	0.67	1,632.75
Building Off Road Diesel	1.39	10.47	5.09	0.00	0.00	0.67	0.67	0.00	0.61	0.61	893.39
Building Vendor Trips	0.07	0.88	0.74	0.00	0.01	0.03	0.04	0.00	0.03	0.03	134.39
Building Worker Trips	0.46	0.83	10.85	0.01	0.03	0.02	0.05	0.01	0.02	0.03	604.97
Coating 08/08/2008-09/05/2008	112.91	0.15	2.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	112.53
Architectural Coating	112.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.09	0.15	2.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	112.53
Time Slice 8/25/2008-9/5/2008	112.91	0.15	2.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	112.53
Active Days: 10											
Coating 08/08/2008-09/05/2008	112.91	0.15	2.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	112.53
Architectural Coating	112.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.09	0.15	2.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	112.53

Phase Assumptions

- Phase: Fine Grading 11/30/2007 - 1/11/2008 - Default Fine Site Grading Description
- Total Acres Disturbed: 2.23
- Maximum Daily Acreage Disturbed: 0.56
- Fugitive Dust Level of Detail: Default
- 20 lbs per acre-day
- On Road Truck Travel (VMT): 0
- Off-Road Equipment:
 - 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
 - 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
 - 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
 - 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

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Phase: Paving 12/28/2007 - 1/11/2008 - Default Paving Description

Acres to be Paved: 0.56

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 1/11/2008 - 8/22/2008 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Architectural Coating 8/8/2008 - 9/5/2008 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.05	0.74	0.62	0.00	0.00	0.00	884.80
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping - No Winter Emissions							
Consumer Products	0.00						
Architectural Coatings	0.65						
TOTALS (lbs/day, unmitigated)	0.70	0.74	0.62	0.00	0.00	0.00	884.80

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>	<u>CO2</u>
ITE Manual 8th Ed. Land Use 151 Mini Warehouse	2.51	3.01	23.07	0.01	2.71	0.52	1,342.87
TOTALS (lbs/day, unmitigated)	2.51	3.01	23.07	0.01	2.71	0.52	1,342.87

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2010 Temperature (F): 60 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
ITE Manual 8th Ed. Land Use 151 Mini Warehouse		2.50	1000 sq ft	110.60	276.50	1,571.63
					276.50	1,571.63

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	46.2	1.5	98.1	0.4
Light Truck < 3750 lbs	16.7	2.4	94.0	3.6
Light Truck 3751-5750 lbs	20.4	1.0	98.5	0.5
Med Truck 5751-8500 lbs	7.5	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	73.3	26.7
Lite-Heavy Truck 10,001-14,000 lbs	1.0	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.1	0.0	27.3	72.7
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	33.3	66.7
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.7	64.9	35.1	0.0
School Bus	0.2	0.0	0.0	100.0
Motor Home	1.2	8.3	83.4	8.3

Travel Conditions

	Residential			Commuter	Commercial	
	Home-Work	Home-Shop	Home-Other		Non-Work	Customer
Urban Trip Length (miles)	9.9	5.6	6.1	5.7	4.1	5.7

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Rural Trip Length (miles)	15.0	15.0	15.0	15.0	10.0	10.0
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
ITE Manual 8th Ed. Land Use 151 Mini Warehouse				2.0	1.0	97.0

ATTACHMENT B

*URBEMIS Output –
Amended Project
Construction and Operational Emissions*

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: P:\300.Environmental\10444 Schwan Self Storage\DUDEK WORK PRODUCTS\DOCUMENTS\AQ&GHG\Calculations\Urbemis Summary 2017.urb924

Project Name: Schwan Self Storage

Project Location: Santa Barbara County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2017 TOTALS (tons/year unmitigated)	0.07	0.55	0.37	0.00	1.41	0.03	1.44	0.30	0.02	0.32	101.52
2018 TOTALS (tons/year unmitigated)	1.05	0.53	0.90	0.00	0.00	0.03	0.03	0.00	0.02	0.02	158.32

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.12	0.11	0.23	0.00	0.00	0.00	131.11

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.24	0.21	1.89	0.00	0.39	0.07	198.08

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.36	0.32	2.12	0.00	0.39	0.07	329.19

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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Phase Assumptions

Phase: Fine Grading 10/16/2017 - 12/28/2017 - Default Fine Site Grading Description

Total Acres Disturbed: 2.06

Maximum Daily Acreage Disturbed: 0.52

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 257 cubic yards/day; Offsite Cut/Fill: 38 cubic yards/day

On Road Truck Travel (VMT): 281.48

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 12/14/2017 - 12/28/2017 - Default Paving Description

Acres to be Paved: 0.52

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 12/28/2017 - 10/22/2018 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Architectural Coating 10/5/2018 - 11/14/2018 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.01	0.11	0.09	0.00	0.00	0.00	130.86
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscape	0.01	0.00	0.14	0.00	0.00	0.00	0.25
Consumer Products	0.00						
Architectural Coatings	0.10						
TOTALS (tons/year, unmitigated)	0.12	0.11	0.23	0.00	0.00	0.00	131.11

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>	<u>CO2</u>
ITE Manual 9th Ed. Land Use 151 Mini Warehouse	0.24	0.21	1.89	0.00	0.39	0.07	198.08
TOTALS (tons/year, unmitigated)	0.24	0.21	1.89	0.00	0.39	0.07	198.08

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2019 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
ITE Manual 9th Ed. Land Use 151 Mini Warehouse		2.41	1000 sq ft	89.63	216.01	1,227.79
					216.01	1,227.79

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	46.2	1.5	98.1	0.4
Light Truck < 3750 lbs	16.7	2.4	94.0	3.6
Light Truck 3751-5750 lbs	20.4	1.0	98.5	0.5
Med Truck 5751-8500 lbs	7.5	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	73.3	26.7
Lite-Heavy Truck 10,001-14,000 lbs	1.0	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.1	0.0	27.3	72.7
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	33.3	66.7
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.7	64.9	35.1	0.0
School Bus	0.2	0.0	0.0	100.0
Motor Home	1.2	8.3	83.4	8.3

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	9.9	5.6	6.1	5.7	4.1	5.7
Rural Trip Length (miles)	15.0	15.0	15.0	15.0	10.0	10.0
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
ITE Manual 9th Ed. Land Use 151 Mini Warehouse				2.0	1.0	97.0

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: P:\300.Environmental\10444 Schwan Self Storage\DUDEK WORK PRODUCTS\DOCUMENTS\AQ&GHG\Calculations\Urbemis Summary 2017.urb924

Project Name: Schwan Self Storage

Project Location: Santa Barbara County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2017 TOTALS (lbs/day unmitigated)	4.66	31.93	28.67	0.02	52.33	1.67	54.00	10.94	1.53	12.47	6,129.78
2018 TOTALS (lbs/day unmitigated)	67.05	5.03	8.95	0.01	0.03	0.25	0.28	0.01	0.23	0.24	1,557.55

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.68	0.62	2.05	0.00	0.01	0.01	719.85

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	1.35	1.09	10.12	0.01	2.11	0.40	1,105.52

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	2.03	1.71	12.17	0.01	2.12	0.41	1,825.37

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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Time Slice 10/16/2017-12/13/2017 Active Days: 43	2.33	18.35	11.83	0.01	52.29	0.80	53.09	10.93	0.73	11.66	3,465.87
Fine Grading 10/16/2017-12/28/2017	2.33	18.35	11.83	0.01	52.29	0.80	53.09	10.93	0.73	11.66	3,465.87
Fine Grading Dust	0.00	0.00	0.00	0.00	52.25	0.00	52.25	10.91	0.00	10.91	0.00
Fine Grading Off Road Diesel	2.03	14.69	9.80	0.00	0.00	0.68	0.68	0.00	0.62	0.62	2,247.32
Fine Grading On Road Diesel	0.28	3.61	1.28	0.01	0.04	0.12	0.16	0.01	0.11	0.12	1,133.25
Fine Grading Worker Trips	0.03	0.05	0.75	0.00	0.00	0.00	0.01	0.00	0.00	0.00	85.30
Time Slice 12/14/2017-12/27/2017 Active Days: 10	3.76	26.38	19.81	0.01	52.30	1.39	53.69	10.93	1.27	12.20	4,638.12
Asphalt 12/14/2017-12/28/2017	1.42	8.03	7.98	0.00	0.01	0.59	0.60	0.00	0.54	0.54	1,172.26
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.24	7.79	6.61	0.00	0.00	0.58	0.58	0.00	0.53	0.53	979.23
Paving On Road Diesel	0.01	0.14	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	43.75
Paving Worker Trips	0.05	0.10	1.32	0.00	0.01	0.00	0.01	0.00	0.00	0.01	149.28
Fine Grading 10/16/2017-12/28/2017	2.33	18.35	11.83	0.01	52.29	0.80	53.09	10.93	0.73	11.66	3,465.87
Fine Grading Dust	0.00	0.00	0.00	0.00	52.25	0.00	52.25	10.91	0.00	10.91	0.00
Fine Grading Off Road Diesel	2.03	14.69	9.80	0.00	0.00	0.68	0.68	0.00	0.62	0.62	2,247.32
Fine Grading On Road Diesel	0.28	3.61	1.28	0.01	0.04	0.12	0.16	0.01	0.11	0.12	1,133.25
Fine Grading Worker Trips	0.03	0.05	0.75	0.00	0.00	0.00	0.01	0.00	0.00	0.00	85.30

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Time Slice 12/28/2017-12/28/2017	<u>4.66</u>	<u>31.93</u>	<u>28.67</u>	<u>0.02</u>	<u>52.33</u>	<u>1.67</u>	<u>54.00</u>	<u>10.94</u>	<u>1.53</u>	<u>12.47</u>	<u>6,129.78</u>
Active Days: 1											
Asphalt 12/14/2017-12/28/2017	1.42	8.03	7.98	0.00	0.01	0.59	0.60	0.00	0.54	0.54	1,172.26
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.24	7.79	6.61	0.00	0.00	0.58	0.58	0.00	0.53	0.53	979.23
Paving On Road Diesel	0.01	0.14	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	43.75
Paving Worker Trips	0.05	0.10	1.32	0.00	0.01	0.00	0.01	0.00	0.00	0.01	149.28
Building 12/28/2017-10/22/2018	0.90	5.55	8.86	0.01	0.03	0.28	0.31	0.01	0.26	0.27	1,491.66
Building Off Road Diesel	0.71	4.97	4.22	0.00	0.00	0.26	0.26	0.00	0.24	0.24	893.39
Building Vendor Trips	0.03	0.27	0.32	0.00	0.00	0.01	0.01	0.00	0.01	0.01	108.95
Building Worker Trips	0.16	0.31	4.32	0.00	0.03	0.02	0.04	0.01	0.01	0.02	489.32
Fine Grading 10/16/2017-12/28/2017	2.33	18.35	11.83	0.01	52.29	0.80	53.09	10.93	0.73	11.66	3,465.87
Fine Grading Dust	0.00	0.00	0.00	0.00	52.25	0.00	52.25	10.91	0.00	10.91	0.00
Fine Grading Off Road Diesel	2.03	14.69	9.80	0.00	0.00	0.68	0.68	0.00	0.62	0.62	2,247.32
Fine Grading On Road Diesel	0.28	3.61	1.28	0.01	0.04	0.12	0.16	0.01	0.11	0.12	1,133.25
Fine Grading Worker Trips	0.03	0.05	0.75	0.00	0.00	0.00	0.01	0.00	0.00	0.00	85.30
Time Slice 12/29/2017-12/29/2017	0.90	5.55	8.86	0.01	0.03	0.28	0.31	0.01	0.26	0.27	1,491.66
Active Days: 1											
Building 12/28/2017-10/22/2018	0.90	5.55	8.86	0.01	0.03	0.28	0.31	0.01	0.26	0.27	1,491.66
Building Off Road Diesel	0.71	4.97	4.22	0.00	0.00	0.26	0.26	0.00	0.24	0.24	893.39
Building Vendor Trips	0.03	0.27	0.32	0.00	0.00	0.01	0.01	0.00	0.01	0.01	108.95
Building Worker Trips	0.16	0.31	4.32	0.00	0.03	0.02	0.04	0.01	0.01	0.02	489.32

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Time Slice 1/1/2018-10/4/2018 Active Days: 199	0.82	5.00	8.42	0.01	0.03	0.25	0.28	0.01	0.22	0.24	1,491.64
Building 12/28/2017-10/22/2018	0.82	5.00	8.42	0.01	0.03	0.25	0.28	0.01	0.22	0.24	1,491.64
Building Off Road Diesel	0.65	4.47	4.16	0.00	0.00	0.22	0.22	0.00	0.20	0.20	893.39
Building Vendor Trips	0.03	0.24	0.30	0.00	0.00	0.01	0.01	0.00	0.01	0.01	108.96
Building Worker Trips	0.15	0.29	3.96	0.00	0.03	0.02	0.04	0.01	0.01	0.02	489.30
Time Slice 10/5/2018-10/22/2018 Active Days: 12	<u>67.05</u>	<u>5.03</u>	<u>8.95</u>	<u>0.01</u>	<u>0.03</u>	<u>0.25</u>	<u>0.28</u>	<u>0.01</u>	<u>0.23</u>	<u>0.24</u>	<u>1,557.55</u>
Building 12/28/2017-10/22/2018	0.82	5.00	8.42	0.01	0.03	0.25	0.28	0.01	0.22	0.24	1,491.64
Building Off Road Diesel	0.65	4.47	4.16	0.00	0.00	0.22	0.22	0.00	0.20	0.20	893.39
Building Vendor Trips	0.03	0.24	0.30	0.00	0.00	0.01	0.01	0.00	0.01	0.01	108.96
Building Worker Trips	0.15	0.29	3.96	0.00	0.03	0.02	0.04	0.01	0.01	0.02	489.30
Coating 10/05/2018-11/14/2018	66.23	0.04	0.53	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.91
Architectural Coating	66.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.53	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.91
Time Slice 10/23/2018-11/14/2018 Active Days: 17	66.23	0.04	0.53	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.91
Coating 10/05/2018-11/14/2018	66.23	0.04	0.53	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.91
Architectural Coating	66.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.53	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.91

Phase Assumptions

Phase: Fine Grading 10/16/2017 - 12/28/2017 - Default Fine Site Grading Description
 Total Acres Disturbed: 2.06
 Maximum Daily Acreage Disturbed: 0.52
 Fugitive Dust Level of Detail: Low
 Onsite Cut/Fill: 257 cubic yards/day; Offsite Cut/Fill: 38 cubic yards/day

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On Road Truck Travel (VMT): 281.48

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 12/14/2017 - 12/28/2017 - Default Paving Description

Acres to be Paved: 0.52

Off-Road Equipment:

- 4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 12/28/2017 - 10/22/2018 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day
- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Architectural Coating 10/5/2018 - 11/14/2018 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.04	0.60	0.50	0.00	0.00	0.00	717.04
Hearth - No Summer Emissions							
Landscape	0.12	0.02	1.55	0.00	0.01	0.01	2.81
Consumer Products	0.00						
Architectural Coatings	0.52						
TOTALS (lbs/day, unmitigated)	0.68	0.62	2.05	0.00	0.01	0.01	719.85

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>	<u>CO2</u>
ITE Manual 9th Ed. Land Use 151 Mini Warehouse	1.35	1.09	10.12	0.01	2.11	0.40	1,105.52
TOTALS (lbs/day, unmitigated)	1.35	1.09	10.12	0.01	2.11	0.40	1,105.52

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2019 Temperature (F): 75 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
ITE Manual 9th Ed. Land Use 151 Mini Warehouse		2.41	1000 sq ft	89.63	216.01	1,227.79
					216.01	1,227.79

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	46.2	1.5	98.1	0.4
Light Truck < 3750 lbs	16.7	2.4	94.0	3.6
Light Truck 3751-5750 lbs	20.4	1.0	98.5	0.5
Med Truck 5751-8500 lbs	7.5	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	73.3	26.7
Lite-Heavy Truck 10,001-14,000 lbs	1.0	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.1	0.0	27.3	72.7
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	33.3	66.7
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.7	64.9	35.1	0.0
School Bus	0.2	0.0	0.0	100.0
Motor Home	1.2	8.3	83.4	8.3

Travel Conditions

	Residential			Commuter	Commercial	
	Home-Work	Home-Shop	Home-Other		Non-Work	Customer
Urban Trip Length (miles)	9.9	5.6	6.1	5.7	4.1	5.7

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Rural Trip Length (miles)	15.0	15.0	15.0	15.0	10.0	10.0
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
ITE Manual 9th Ed. Land Use 151 Mini Warehouse				2.0	1.0	97.0

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: P:\300.Environmental\10444 Schwan Self Storage\DUDEK WORK PRODUCTS\DOCUMENTS\AQ&GHG\Calculations\Urbemis Summary 2017.urb924

Project Name: Schwan Self Storage

Project Location: Santa Barbara County APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2017 TOTALS (lbs/day unmitigated)	4.66	31.93	28.67	0.02	52.33	1.67	54.00	10.94	1.53	12.47	6,129.78
2018 TOTALS (lbs/day unmitigated)	67.05	5.03	8.95	0.01	0.03	0.25	0.28	0.01	0.23	0.24	1,557.55

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	0.56	0.60	0.50	0.00	0.00	0.00	717.04

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	1.28	1.27	10.85	0.01	2.11	0.40	1,045.02

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	1.84	1.87	11.35	0.01	2.11	0.40	1,762.06

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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Time Slice 10/16/2017-12/13/2017	2.33	18.35	11.83	0.01	52.29	0.80	53.09	10.93	0.73	11.66	3,465.87
Active Days: 43											
Fine Grading 10/16/2017-12/28/2017	2.33	18.35	11.83	0.01	52.29	0.80	53.09	10.93	0.73	11.66	3,465.87
Fine Grading Dust	0.00	0.00	0.00	0.00	52.25	0.00	52.25	10.91	0.00	10.91	0.00
Fine Grading Off Road Diesel	2.03	14.69	9.80	0.00	0.00	0.68	0.68	0.00	0.62	0.62	2,247.32
Fine Grading On Road Diesel	0.28	3.61	1.28	0.01	0.04	0.12	0.16	0.01	0.11	0.12	1,133.25
Fine Grading Worker Trips	0.03	0.05	0.75	0.00	0.00	0.00	0.01	0.00	0.00	0.00	85.30
Time Slice 12/14/2017-12/27/2017	3.76	26.38	19.81	0.01	52.30	1.39	53.69	10.93	1.27	12.20	4,638.12
Active Days: 10											
Asphalt 12/14/2017-12/28/2017	1.42	8.03	7.98	0.00	0.01	0.59	0.60	0.00	0.54	0.54	1,172.26
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.24	7.79	6.61	0.00	0.00	0.58	0.58	0.00	0.53	0.53	979.23
Paving On Road Diesel	0.01	0.14	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	43.75
Paving Worker Trips	0.05	0.10	1.32	0.00	0.01	0.00	0.01	0.00	0.00	0.01	149.28
Fine Grading 10/16/2017-12/28/2017	2.33	18.35	11.83	0.01	52.29	0.80	53.09	10.93	0.73	11.66	3,465.87
Fine Grading Dust	0.00	0.00	0.00	0.00	52.25	0.00	52.25	10.91	0.00	10.91	0.00
Fine Grading Off Road Diesel	2.03	14.69	9.80	0.00	0.00	0.68	0.68	0.00	0.62	0.62	2,247.32
Fine Grading On Road Diesel	0.28	3.61	1.28	0.01	0.04	0.12	0.16	0.01	0.11	0.12	1,133.25
Fine Grading Worker Trips	0.03	0.05	0.75	0.00	0.00	0.00	0.01	0.00	0.00	0.00	85.30

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Time Slice 12/28/2017-12/28/2017	<u>4.66</u>	<u>31.93</u>	<u>28.67</u>	<u>0.02</u>	<u>52.33</u>	<u>1.67</u>	<u>54.00</u>	<u>10.94</u>	<u>1.53</u>	<u>12.47</u>	<u>6,129.78</u>
Active Days: 1											
Asphalt 12/14/2017-12/28/2017	1.42	8.03	7.98	0.00	0.01	0.59	0.60	0.00	0.54	0.54	1,172.26
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.24	7.79	6.61	0.00	0.00	0.58	0.58	0.00	0.53	0.53	979.23
Paving On Road Diesel	0.01	0.14	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	43.75
Paving Worker Trips	0.05	0.10	1.32	0.00	0.01	0.00	0.01	0.00	0.00	0.01	149.28
Building 12/28/2017-10/22/2018	0.90	5.55	8.86	0.01	0.03	0.28	0.31	0.01	0.26	0.27	1,491.66
Building Off Road Diesel	0.71	4.97	4.22	0.00	0.00	0.26	0.26	0.00	0.24	0.24	893.39
Building Vendor Trips	0.03	0.27	0.32	0.00	0.00	0.01	0.01	0.00	0.01	0.01	108.95
Building Worker Trips	0.16	0.31	4.32	0.00	0.03	0.02	0.04	0.01	0.01	0.02	489.32
Fine Grading 10/16/2017-12/28/2017	2.33	18.35	11.83	0.01	52.29	0.80	53.09	10.93	0.73	11.66	3,465.87
Fine Grading Dust	0.00	0.00	0.00	0.00	52.25	0.00	52.25	10.91	0.00	10.91	0.00
Fine Grading Off Road Diesel	2.03	14.69	9.80	0.00	0.00	0.68	0.68	0.00	0.62	0.62	2,247.32
Fine Grading On Road Diesel	0.28	3.61	1.28	0.01	0.04	0.12	0.16	0.01	0.11	0.12	1,133.25
Fine Grading Worker Trips	0.03	0.05	0.75	0.00	0.00	0.00	0.01	0.00	0.00	0.00	85.30
Time Slice 12/29/2017-12/29/2017	0.90	5.55	8.86	0.01	0.03	0.28	0.31	0.01	0.26	0.27	1,491.66
Active Days: 1											
Building 12/28/2017-10/22/2018	0.90	5.55	8.86	0.01	0.03	0.28	0.31	0.01	0.26	0.27	1,491.66
Building Off Road Diesel	0.71	4.97	4.22	0.00	0.00	0.26	0.26	0.00	0.24	0.24	893.39
Building Vendor Trips	0.03	0.27	0.32	0.00	0.00	0.01	0.01	0.00	0.01	0.01	108.95
Building Worker Trips	0.16	0.31	4.32	0.00	0.03	0.02	0.04	0.01	0.01	0.02	489.32

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Time Slice 1/1/2018-10/4/2018 Active Days: 199	0.82	5.00	8.42	0.01	0.03	0.25	0.28	0.01	0.22	0.24	1,491.64
Building 12/28/2017-10/22/2018	0.82	5.00	8.42	0.01	0.03	0.25	0.28	0.01	0.22	0.24	1,491.64
Building Off Road Diesel	0.65	4.47	4.16	0.00	0.00	0.22	0.22	0.00	0.20	0.20	893.39
Building Vendor Trips	0.03	0.24	0.30	0.00	0.00	0.01	0.01	0.00	0.01	0.01	108.96
Building Worker Trips	0.15	0.29	3.96	0.00	0.03	0.02	0.04	0.01	0.01	0.02	489.30
Time Slice 10/5/2018-10/22/2018 Active Days: 12	<u>67.05</u>	<u>5.03</u>	<u>8.95</u>	<u>0.01</u>	<u>0.03</u>	<u>0.25</u>	<u>0.28</u>	<u>0.01</u>	<u>0.23</u>	<u>0.24</u>	<u>1,557.55</u>
Building 12/28/2017-10/22/2018	0.82	5.00	8.42	0.01	0.03	0.25	0.28	0.01	0.22	0.24	1,491.64
Building Off Road Diesel	0.65	4.47	4.16	0.00	0.00	0.22	0.22	0.00	0.20	0.20	893.39
Building Vendor Trips	0.03	0.24	0.30	0.00	0.00	0.01	0.01	0.00	0.01	0.01	108.96
Building Worker Trips	0.15	0.29	3.96	0.00	0.03	0.02	0.04	0.01	0.01	0.02	489.30
Coating 10/05/2018-11/14/2018	66.23	0.04	0.53	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.91
Architectural Coating	66.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.53	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.91
Time Slice 10/23/2018-11/14/2018 Active Days: 17	66.23	0.04	0.53	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.91
Coating 10/05/2018-11/14/2018	66.23	0.04	0.53	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.91
Architectural Coating	66.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.53	0.00	0.00	0.00	0.01	0.00	0.00	0.00	65.91

Phase Assumptions

Phase: Fine Grading 10/16/2017 - 12/28/2017 - Default Fine Site Grading Description
 Total Acres Disturbed: 2.06
 Maximum Daily Acreage Disturbed: 0.52
 Fugitive Dust Level of Detail: Low
 Onsite Cut/Fill: 257 cubic yards/day; Offsite Cut/Fill: 38 cubic yards/day

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On Road Truck Travel (VMT): 281.48

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 12/14/2017 - 12/28/2017 - Default Paving Description

Acres to be Paved: 0.52

Off-Road Equipment:

- 4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 12/28/2017 - 10/22/2018 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day
- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Architectural Coating 10/5/2018 - 11/14/2018 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

6/6/2017 2:22:35 PM

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.04	0.60	0.50	0.00	0.00	0.00	717.04
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping - No Winter Emissions							
Consumer Products	0.00						
Architectural Coatings	0.52						
TOTALS (lbs/day, unmitigated)	0.56	0.60	0.50	0.00	0.00	0.00	717.04

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM25</u>	<u>CO2</u>
ITE Manual 9th Ed. Land Use 151 Mini Warehouse	1.28	1.27	10.85	0.01	2.11	0.40	1,045.02
TOTALS (lbs/day, unmitigated)	1.28	1.27	10.85	0.01	2.11	0.40	1,045.02

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2019 Temperature (F): 60 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
ITE Manual 9th Ed. Land Use 151 Mini Warehouse		2.41	1000 sq ft	89.63	216.01	1,227.79
					216.01	1,227.79

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	46.2	1.5	98.1	0.4
Light Truck < 3750 lbs	16.7	2.4	94.0	3.6
Light Truck 3751-5750 lbs	20.4	1.0	98.5	0.5
Med Truck 5751-8500 lbs	7.5	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.5	0.0	73.3	26.7
Lite-Heavy Truck 10,001-14,000 lbs	1.0	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.1	0.0	27.3	72.7
Heavy-Heavy Truck 33,001-60,000 lbs	0.3	0.0	33.3	66.7
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.7	64.9	35.1	0.0
School Bus	0.2	0.0	0.0	100.0
Motor Home	1.2	8.3	83.4	8.3

Travel Conditions

	Residential			Commuter	Commercial	
	Home-Work	Home-Shop	Home-Other		Non-Work	Customer
Urban Trip Length (miles)	9.9	5.6	6.1	5.7	4.1	5.7

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Rural Trip Length (miles)	15.0	15.0	15.0	15.0	10.0	10.0
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
ITE Manual 9th Ed. Land Use 151 Mini Warehouse				2.0	1.0	97.0