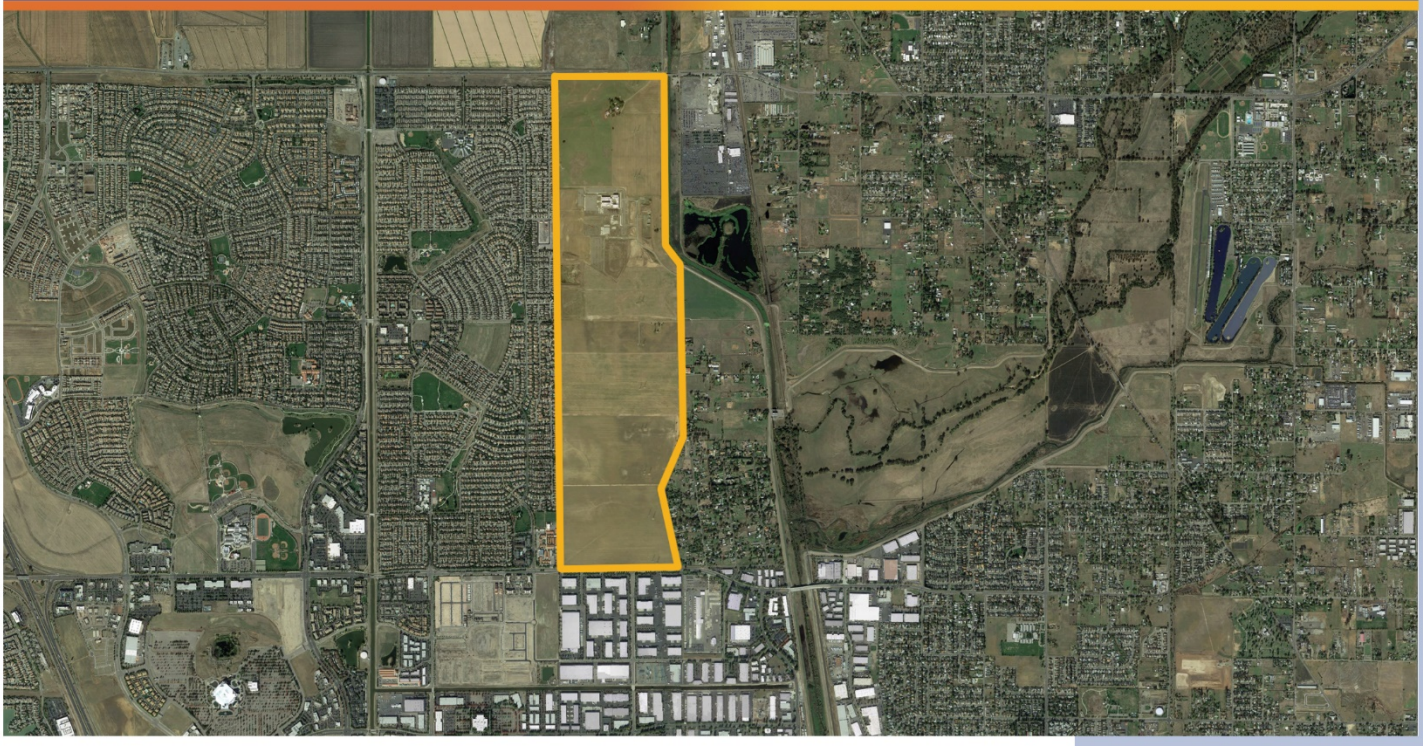
Appendix A

Air Quality Management Plan

January 2018

Panhandle Annexation and PUD Air Quality Mitigation Plan



City of SACRAMENTO

Sacramento LAFCo

PREPARED FOR:

City of Sacramento and
the Sacramento Local Agency
Formation Commission

TABLE OF CONTENTS

Appendices

Tables

ACRONYMS AND ABBREVIATIONS

AQMP	air quality mitigation plan
AQMP Guidance	SMAQMD Recommended Guidance for Land Use Emission Reductions Version 3.3 for Operational Emissions
BE	building energy
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CEQA	California Environmental Quality Act
DEIR	draft environmental impact report
du/na	dwelling units per net acre
EIR	environmental impact report
lb/day	pounds per day
LUT	land use/location
NEV	neighborhood electric vehicle
NNCP	North Natomas Community Plan
NO_X	oxides of nitrogen
OS	open space
PD	planned development
PDT	parking policy/pricing
PM_{10}	respirable particulate matter
PR	parks and recreation
PUD	Planned Unit Development
ROG	reactive organic gases
SACOG	Sacramento Area Council of Governments
SACSIM	travel forecasting model system used by SACOG
SC	suburban center
SDT	neighborhood/site enhancements
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SNLD	suburban neighborhood low density
TMA	transportation management association
tons/year	tons per year
TRT	commute trip reduction programs
TST	transit system improvements
VMT	vehicle miles traveled

This page intentionally left blank.

1 INTRODUCTION

The Panhandle Annexation and Planned Unit Development (Panhandle PUD) project is a proposed development area (referred to as "project area") located in the North Natomas Community Plan (NNCP) planning area, which encompasses approximately 7,438 acres in the City of Sacramento and 1,600 acres in unincorporated Sacramento County. The project is subject to the California Environmental Quality Act (CEQA), which requires the preparation of an environmental impact report (EIR). Development of the project would result in emissions of criteria air pollutants and ozone precursors during both the construction and operational phases. Construction-related impacts would be short-term and associated with the use of heavy-duty equipment. Construction-related emissions are evaluated in the Air Quality Section of the Draft Environmental Impact Report (DEIR or Draft EIR). Operational emissions would be associated with vehicle trip generation, area sources (e.g., landscaping equipment, consumer products, architectural coatings), and energy use (e.g., natural gas for area heating/cooling and appliances). This Air Quality Mitigation Plan (AQMP) addresses the operational impacts by proposing mitigation measures to be applied to the project. These measures are necessary for the project to meet the requirements of CEQA and to meet regional air quality goals.

The Panhandle PUD project is subject to CEQA review and, as a commenting agency, the Sacramento Metropolitan Air Quality Management District (SMAQMD) shall assess whether this project has significant air pollutant impacts. If impacts are significant, then in accordance with SMAQMD guidance, an AQMP shall be prepared to address these significant impacts. This AQMP has been prepared to supplement the CEQA analysis and serves as mitigation, as referenced in the Draft and Final EIR, for emissions of long-term criteria air pollutants and ozone precursors. The AQMP specifies the measures that will be applied to address the potentially significant impact of regional ozone precursor emissions of oxides of nitrogen (i.e., NO_x) and reactive organic gases (i.e., ROG).

2 PURPOSE OF THE AIR QUALITY MITIGATION PLAN

CEQA requires that EIRs identify and evaluate any significant environmental impacts of a proposed project. A project is determined to have potentially significant air quality impacts under CEQA if construction and/or operational emissions would exceed SMAQMD's established mass emission thresholds for ROG and NO_X. SMAQMD has established construction thresholds of 85 pounds per day (lb/day) for ROG and NO_x, and operational thresholds of 65 lb/day for ROG and NO_x. Operational emissions are evaluated for the full build-out year of the project. Projects that exceed daily operational thresholds of 65 lb/day for ROG or NO_x are considered operationally significant and required to prepare an AQMP (SMAQMD 2016).

The analysis of significant effects shall quantify project-generated emissions of ozone precursors and then describe feasible measures that could minimize any significant adverse impacts. To assist in the evaluation of air quality impacts, SMAQMD developed its *Recommended Guidance for Land Use Emission Reductions Version 3.3* (AQMP Guidance) dated September 26, 2016 (SMAQMD 2016). The AQMP Guidance outlines methods for estimating project-related operational emissions, establishing an emissions reduction target for the project, and quantifying emission reductions associated with SMAQMD-approved reduction measures.

An emissions reduction target of 15 percent is required of projects that have been included in the most current State Implementation Plan (SIP), and a reduction target of 35 percent is required of projects that have not been included in the current SIP. The project area is within the 2035 General Plan Update Policy Area, but was not included in the current SIP. For these reasons, and based on SMAQMD guidance, the project would be required to achieve (at a minimum) a 35 percent reduction in operational ozone precursor emissions. Measures included in this AQMP are incorporated by reference into the DEIR prepared for the project.

This AQMP includes a description of the Panhandle PUD project and the methodology used to establish both an unmitigated and a mitigated emissions scenario. These scenarios are based on project-specific data, traffic study, and available mitigation measures. The emissions scenarios are then compared to emission reduction targets and include an explanation of how the 35 percent reduction target for ROG and NO_X is achieved.

3 PROJECT DESCRIPTION

3.1 PROJECT LOCATION

The Panhandle PUD project is a proposed development located in the NNCP planning area, which encompasses approximately 7,438 acres in the City of Sacramento and 1,600 acres in unincorporated Sacramento County. The applicant proposes an annexation of 589.4 acres into the City, amendment of the 2035 General Plan and NNCP, pre-zoning/rezoning of the project area, establishment of the Panhandle PUD project area, and approval of a tentative master parcel map. While the Panhandle PUD project includes 1,662 dwelling units, the DEIR and AQMP conservatively evaluates the development of up to 2,699 dwelling units to factor the eventual development of the Krumenacher lands, which would be designated "Planned Development" (PD) in the annexation. This AQMP uses the same conservative estimates to determine construction and operational emissions from the implementation of the project.

The project area, within the NNCP, is bounded by the Natomas East Main Drainage Canal to the east, Interstate 80 (I-80) to the south, the West Drainage Canal, Fisherman's Lake and State Route 99/State Route 70 (SR 99/70) to the west, and Elkhorn Boulevard to the north (see Exhibit 2 in Appendix A). Regional access to and from the area is provided by Interstate 5 (I-5), I-80 and SR 99/70, along with numerous existing local roads. Refer to Exhibits 1 and 2 in Appendix A for project location and vicinity.

3.2 PROJECT SUMMARY

The approval of the project would result in the development of the private, mixed-use development consisting of residential, an elementary school, roadways, and park uses north of Del Paso Road. Table 1 provides a summary of the proposed land uses and Exhibit 3 in Appendix A shows the schematic plan of the project.

Table 1 Proposed Land Uses

Proposed Land Use	Net Acreage	Size	Proposed General Plan Designation
Estate (Single-Family Residential)	75.7	340 Units	Suburban Neighborhood Low Density (SNLD)
Traditional (Single-Family Residential)	147.7	869 Units	Suburban Neighborhood Low Density (SNLD)
Village (Single-Family Residential)	60.5	453 Units	Suburban Neighborhood Low Density (SNLD)
Krumenacher Planned Development	119.0	1,037 Units	Planned Development (PD)
Elementary School	10.0	NA	Suburban Neighborhood Low Density (SNLD)
Park/Ninos Parkway	23.5	NA	Parks and Recreation (PR)
Ninos Parkway	24.6	NA	Parks and Recreation (PR)
Detention Basin	13.4	NA	Open Space (OS)
High School/Middle School	60.4	NA	Suburban Neighborhood Low Density (SNLD)
Major, Collector, and Residential Streets	54.6	NA	
Total Residential Units	-	**2,699 Units**	Suburban Neighborhood Low Density (SNLD)
Total Project Acreage	**589.4**		

Notes: SF = square feet; NA = not applicable.

3.2.1 Proposed Land Uses

Residential

The Panhandle PUD project includes the development of single-family residential units with allowable densities ranging from three to eight dwelling units per net acre (du/na). The mix of lot size and densities would provide a variety of housing types:

- "Estate" with an average density of 4.5 du/na;
- "Traditional" lots with an average density of 6 du/na; and
- "Village" lots with an average density of 7.5 du/na.

Schools

The Panhandle PUD project includes a 10-net acre elementary school site west of National Drive (in the southern part of the PUD) within the Robla School District (see Exhibit 3 in Appendix A). The existing East Natomas Education Complex (junior and senior high schools in the Twin Rivers Unified School District) would be retained on-site. The completion and operation of the East Natomas Education Complex would not be a component of the Panhandle PUD project.

Parks and Open Space

The Panhandle PUD project would include 61.5 net acres of parks and open space uses consisting of park facilities (23.5 net acres), open space parkway (24.6 net acres) and detention areas (13.4 net acres). The Ninos Parkway would be situated in the eastern part of the PUD and would provide active and passive recreation opportunities and a trail system. No specific park uses have been identified as part of the PUD.

Project Access/Circulation

As shown in Exhibit 3 of Appendix A, roadway access to the PUD project area would be available from Del Paso Road, Sorento Road, Mayfield Street, Aimwell Avenue, Club Center Drive, and Faletto Avenue.

4 METHODS

All emissions estimates and analysis presented in this AQMP were conducted based on SMAQMD Recommended Guidance for Land Use Emission Reductions Version 3.3 for Operational Emissions [(AQMP Guidance) September 26, 2016] and discussions with SMAQMD staff. Emissions modeling was conducted using the California Emissions Estimator Model (CalEEMod) Version 2016.3.1, in accordance with the City of Sacramento and SMAQMD guidance. Emissions estimates included in this AQMP include long-term operational emissions of criteria air pollutants and ozone precursors (i.e., ROG, NO_x, respirable particulate matter [PM_{10}]) associated with mobile sources (i.e., trip generation) and stationary sources (e.g., area wide and energy consumption).

Project details such as proposed land uses and densities, build-out phasing, project-generated trips, and project components are based on information included in the traffic study conducted for the project, Panhandle – No Commercial Alternative Trip Generation and VMT Analysis Summary (DKS Associates 2017), and data provided by the applicant and by the City of Sacramento. Data used in this analysis are included in Appendix B.

To estimate mobile source emissions, CalEEMod was used in combination with project-specific traffic data included in the traffic study conducted for the project (DKS 2017). The traffic study includes a description of existing conditions and traffic-related impacts associated with the proposed project. The project-specific traffic study was used to obtain trip data associated with the project. Specifically, the traffic study included estimates of daily vehicle miles traveled (VMT) and trip generation associated with the existing conditions and existing plus project conditions.

In accordance with SMAQMD guidance for the evaluation of projects where a traffic study has been prepared, CalEEMod is used to estimate the project's emissions with and without the incorporation of emission reduction measures. The estimation of emissions that does not account for emission reduction measures and uses CalEEMod defaults is referred to as the unmitigated emissions scenario. The estimate that does account for incorporation of emission reduction measures and project-specific traffic data is referred to as the mitigated emissions scenario. The total daily mass emissions that the project shall reduce to meet the 35 percent reduction target for the AQMP is then calculated based on the maximum mobile sector emissions of ROG and NO_X separately as established by the unmitigated emission scenario. The two scenarios are described in further detail below.

4.1 UNMITIGATED EMISSIONS SCENARIO

To establish the unmitigated emissions scenario, the proposed land uses and their size were entered into CalEEMod for the buildout year 2036. Proposed land use and unit numbers were based on the project description and an estimation of the Krumenacher area that may be subject to future residential development. The residential units for this area were estimated using the same ratio as the proposed residential unit types. For a complete description of all land uses input into the CalEEMod runs, refer to Table 1 above.

Once representative land uses were chosen, CalEEMod was run for both the winter and summer seasons using default values and trips rates for Sacramento County to determine if emissions exceed SMAQMD-adopted operational thresholds. CalEEMod does not account for regional reductions in VMT due to other surrounding development or changes in the roadway network and therefore, default trip rates assigned by CalEEMod to the proposed land uses would represent the maximum trip generation, and associated emissions. The unmitigated emissions from these runs were used to establish the AQMP reduction target for the project. In accordance with SMAQMD recommendations, the emission reduction targets were based on the mobile sector only, not total combined project emissions. Although SMAQMD-adopted operational thresholds are based on maximum daily emissions, guidance from SMAQMD suggest the use of annual emissions of ROG and NO_X for determining the AQMP reduction target.

4.2 MITIGATED EMISSIONS SCENARIO

To establish the mitigated emissions scenario, the unmitigated emissions scenario (as described above) was adjusted to more accurately reflect project-specific parameters. Project-specific VMT and total trips were obtained from the traffic study conducted for the project. The unmitigated emissions scenario was altered to reflect actual project annual VMT and trip generation for the year 2036. The unmitigated emissions scenario was also altered to reflect the project's level of electricity and natural gas consumption based on 2016 Title 24-adjusted consumption rates provided by CalEEMod for each land use type. Adjustments were based on the California Energy Commission's estimate that single-family houses are 28 percent more energy efficient than 2013 Title 24 standards and non-residential buildings are 5 percent more energy efficient than 2013 Title 24 standards (California Energy Commission 2015). Using the information provided in the traffic study and SMAQMD-approved reduction measures, all measures that were accounted for in the traffic study were then described for the project. Additional on- and off-site mitigation measures were recommended and included as necessary to meet the 35 percent reduction target.

5 EMISSION REDUCTION TARGET

This section shows the calculations conducted to establish the project's emission target of 35 percent. Calculation methods were based on discussions with SMAQMD staff and the AQMP Guidance. Reduction targets were based on the unmitigated emission scenario as described above in Section 4. Detailed calculations are provided below.

5.1 UNMITIGATED EMISSIONS SCENARIO AND REDUCTION TARGET

The project would develop approximately 590 acres of various land use types, as summarized in Table 1 and shown in Exhibit 3 of Appendix A. Based on the proposed land use types and sizes (Table 1), emissions of criteria air pollutants and ozone precursors were quantified using defaults in CalEEMod. Based on the proposed land uses and CalEEMod defaults for trip generation rates and average trip distance, the annual VMT was 74,276,352 and the daily VMT was 203,497. The default average daily trips were 29,603. Daily VMT was calculated by dividing the annual VMT by 365 days per year. Table 2 summarizes these results in tons per year (tons/year).

Table 2 Summary of Maximum Daily Operational Emissions of Ozone Precursors at Full Buildout for the Unmitigated Scenario (2036)

Source-Type	tons/year		
	ROG	NO_X	PM_{10}
Area Source[1]	24.5	0.3	0.1
Energy[2]	0.5	4.3	0.3
Mobile Source	4.3	22.5	27.8
Total Annual Emissions	**29.3**	**27.1**	**28.3**

Notes: NO_X = oxides of nitrogen, ROG = reactive organic gases; PM_{10} = respirable particulate matter, tons/year = tons per year.

Totals may not sum exactly because of rounding.

[1] Area-source emissions include emissions from landscaping, application of architectural coatings, and consumer products, and are estimated based on default model settings.

[2] Energy emissions include emissions associated with natural gas consumption for indoor heating/cooling and appliance use.

See Appendix B for detailed input parameters and modeling results.

Source: Modeling conducted by Ascent Environmental in 2017.

To determine the mass reduction in emissions a project needs to achieve to meet the 35 percent reduction target, the first step is to determine the total mass emissions of ozone precursors emitted by the project's mobile sector. As shown in Table 3 below, the unmitigated scenario would result in total ROG of 4.3 tons/year and total NO_X of 22.5 tons/year from the mobile sector. To achieve the 35 percent reduction target, ROG would need to be reduced by a minimum of 1.5 tons/year and NO_X by a minimum of 7.9 tons/year. Table 3 below displays the reduction target in tons/year for each ozone precursor.

Table 3 Criteria Air Pollutant Reduction Targets

	ROG tons/year[1]	NO_X tons/year[1]
Mobile Source Emissions	4.3	22.5
35 Percent Reduction Target[2]	**1.5**	**7.9**

Notes: NO_X = oxides of nitrogen; ROG = reactive organic gases; tons/year = tons per year.

[1] Emissions taken from the unmitigated CalEEMod run using CalEEMod default trip rates.

[2] A 35 percent mitigation target is required by this project per SMAQMD guidance as it has not been included in the current adopted SIP. The reduction target of 35 percent is calculated based on the total ROG and NO_X emissions from the mobile sector.

6 TRAFFIC STUDY AND PROJECT DESIGN FEATURES

The following section discusses the specific project components used to conduct the mitigated emissions scenario using CalEEMod, project specific traffic information, and project design features included within the PUD Guidelines. A description of the project design feature is provided, how the project would incorporate the specific design feature, and how the emissions modeling was adjusted to reflect each design component. Each design feature is described separately below.

6.1 TRAFFIC STUDY

A traffic study was completed for the Panhandle PUD project. The traffic study considered several design features incorporated into the project that would result in daily VMT and trip generation that is lower than the estimate provided by CalEEMod. The project trip generation and VMT was estimated using the Sacramento Area Council of Governments' (SACOG) SACSIM travel model, a region-specific transportation model. SACSIM is a complete travel demand model that SACOG uses for planning in the Sacramento region. The demand for personal travel within the region was modeled by DaySim, an activity-based demand model. DaySim incorporates a variety of model features, including:

- The ability to model each person in the Sacramento region separately through the use of a population synthesizer that creates a synthetic population representing each person and household in the region;
- The ability to model the complete daily activity pattern for each individual, including the number and sequencing of activities defined by seven purposes;
- A series of logit destination, mode, and time-of-day choice models at the tour and trip levels to simulate the choices for each individual;
- Estimation of the start and end times of all activities and trips to the half-hour level of resolution; and
- Parcel-level spatial resolution for home and activity locations.

Other components of SACSIM are used to model, at an aggregate level, the remaining components of regional travel - including travel into, out of, and through the region (external travel); truck travel; and travel to and from Sacramento International Airport. All travel into, out of, and within the project area is estimated by the model. The model predicts the number of trips, trip purposes, origins and destinations of trips, time of day of the trips, travel mode (e.g., walk, bike, transit, automobile), and travel path. Project-specific factors that were considered in the regional model include:

- Demographics of the households (e.g., income levels, household size, number of workers, auto ownership) – assumed to be similar to adjacent North Natomas neighborhoods, as obtained from the American Community Survey.
- Characteristics of the schools (i.e., number of students, typical number of employees).
- Roadway network – connections to existing roadway system, number of lanes, free-flow travel speeds.
- Pedestrian network.
- Bicycle network, on-street and off-street.
- Development patterns (i.e., grid connectivity).

The SACSIM regional travel model was used to estimate project-specific VMT and trip generation. The SACSIM model also accounts for the bus and light rail transit system, all existing and proposed bicycle facilities, and sidewalks on streets both in and around the project area. The trip generation for the project is based directly on household travel information collected in the Sacramento region and reflects the location, mode choice, and demographics associated with the area. The VMT estimate also considers the redistribution of regional trips associated with new land uses included in the project, such as residences, schools, and parks. The estimated change in daily VMT over the unmitigated scenario (i.e., without traffic study) is the result of many factors, including:

- Travel characteristics associated with the project land use:
  - Personal trip generation;
  - Mode choice (motor vehicle, transit, walk, bike); and
  - Trip origins and destinations (trip length).

- Redistribution of regional trips associated with new land use (residences, schools, parks)
- Network effects:
  - Availability of new roadways associated with the project; and
  - Change in roadway travel speeds associated with changes in traffic volumes.

Based on the above traffic modeling inputs, Table 4 below summarizes project-specific VMT and trip generation in comparison to CalEEMod default project VMT and trip generation.

Table 4 Project Vehicle Miles Traveled and Trip Generation Comparison

Traffic Scenario	Daily VMT	Annual VMT
Vehicle Miles Traveled		
CalEEMod-Generated Project VMT	203,497	74,276,352
SACSIM-Generated Project VMT	152,688	55,731,120
Percent reduction in VMT	33	
Trip Generation		
CalEEMod-Generated Project Daily Trips[1]	29,603	
SACSIM-Generated Project Daily Trips	24,270	
Percent reduction in Trips	18	

Notes: SACSIM= travel forecasting model system used by the Sacramento Area Council of Governments; CalEEMod= California Emissions Estimator Model; VMT= vehicle miles traveled.

[1] Average daily trips calculated by multiplying weekday trips generated by five, adding Saturday and Sunday trips, and dividing by seven days per week.

6.2 PROJECT DESIGN FEATURES INCLUDED IN TRAFFIC STUDY

6.2.1 LUT-4 Improve Destination Accessibility

Design Feature Description: The project would be in an area with high accessibility to destinations, such as employment centers, shopping, and entertainment. Destination accessibility is measured in terms of the number of jobs or other attractions reachable within a given travel time, which tends to be highest at regional centers and lowest at peripheral locations. The location of the project also increases the potential for pedestrians to walk and bike to these destinations and; therefore, reduces VMT.

Project Applicability: The project would be located approximately 7.8 miles from what SMAQMD considers the regional center (the intersection of 10th and K Streets in Sacramento). Exhibit 4 of Appendix A shows the

project's location in comparison to the regional center. The traffic study accounts for the proximity to the regional center and the resultant effect on both trip generation rates and average trip lengths. As described above, the traffic study uses the SACSIM model which considers region-specific travel patterns. Further, the SACSIM model is based on similar development in the North Natomas area and uses travel behavior to inform trip generation rates and lengths. As such, the total VMT associated with operation of the Panhandle PUD at full buildout accounts for the fact that residents and students would not need to travel long distances to access various services.

6.2.2 LUT-5 Increase Transit Accessibility

Design Feature Description: Locating a project with high density near transit will facilitate the use of transit by people traveling to or from the project site. The use of transit results in a mode shift and; therefore, reduced VMT.

Project Applicability: The project would be in proximity to existing transit facilities such as bus stops and light rail stops, as shown in Exhibit 4 of Appendix A. Sacramento Regional Transit District operates a bus line in each direction along North Market Boulevard at National Drive, about 0.65 miles south of the project area. This bus route loops through North Natomas to the west of the project area, and to the east of the project area to the Arden/Del Paso Light Rail Station, which is the closest light rail station to the project. The North Natomas Transportation Management Associate operates the Flyer Shuttle, a peak-period scheduled route transit service between North Natomas and downtown Sacramento. As described in Mitigation Measure 5.11-7 of the DEIR, the project developer shall join the North Natomas Transportation Management Association and coordinate on transit demand measures. The *Sacramento Regional Transit Short Range Transit Plan* identifies the future potential for "Hi Bus Service" (enhanced bus service) along Elkhorn Boulevard as part of its Transit Action Plan (Sacramento Regional Transit District 2014). The traffic study accounts for proximity to existing facilities and the resultant effect on both trip generation rates and average trip lengths. As such, the total VMT associated with operation of the Panhandle PUD project at full buildout accounts for an assumed mode shift by those served by the project.

6.2.3 LUT-9 Improve Walkability Design, SDT-5 Incorporate Bike Lane Street Design, SDT-6 Provide Bike Parking in Non-Residential Projects, SDT-7 Provide Bike Parking in Multi-Unit Residential Projects, and SDT-9 Dedicate Land for Bike Trails (on-site)

These measures are discussed together because improving walkability design involves improving multiple street components such as the construction of sidewalks, traffic calming measures to slow vehicular traffic, and the implementation of crosswalks. As the project would not incorporate multi-unit residential development, SDT-7 is not considered as part of the group measure. All other components were accounted for together in the traffic analysis prepared for the Panhandle PUD project.

Design Feature Description: The project will include improved design elements to enhance walkability and connectivity. Improved street network characteristics within a neighborhood include street accessibility, measured in terms of number of intersections per square mile. Projects must have a minimum of 36 intersections per square mile to qualify for this measure.

Project Applicability: The project would include the following features for each of the measures:

- **SDT-5:** The project would incorporate bike lanes of various ratings on all streets internal to the project and connect with on-street bicycle facilities on Del Paso Road, Mayfield Street, Aimwell Avenue, Club Center Drive, and Faletto Avenue. The project would improve bicycle facilities in the North Natomas

Community Planning Area through the implementation of these facility improvements. This is shown in Exhibit 6 of Appendix A.

- **SDT-7:** The City of Sacramento's Zoning Code requires off-street bicycle parking to be provided in all existing and new development, including schools (City of Sacramento 1999). The implementation of the project would necessitate this code requirement to be met.

- **SDT-9:** The project would establish a new off-street bike/pedestrian facility associated with the Ninos Parkway. The proposed bike facilities are consistent with the alignments set forth in the City of Sacramento's Bicycle Master Plan. Exhibit 6 of Appendix A shows the proposed bicycle facilities on the project site.

- **LUT-9:** The project would include sidewalks on all internal streets. Sidewalks and off-street paths (via the Ninos Parkway) would provide pedestrian access throughout the project, and the proposed pedestrian facilities would connect to the existing pedestrian facilities abutting the site.

External connections of the project occur approximately every quarter-mile along the project's perimeter, as shown in Exhibit 5 in Appendix A. The traffic study included the intersections identified in Exhibit 7 in Appendix A, which were used to calculate the number of intersections per square mile in the project area. The project acreage that was used to calculate this number excluded the middle/high school, as it is not considered part of this project, and the detention basin, as it is not a publicly-used land use. This resulted in 30 intersections in approximately 516 acres, or 37 intersections per square mile. As the minimum number of intersections per square mile required to gain credit for this measure is 36, the project is considered to meet this minimum but not exceed it. Hence, no additional reduction in VMT can be accounted for based on the number of intersections per square mile.

The total VMT associated with operation of the Panhandle PUD project at full buildout accounts for an assumed mode shift by those served by the project, as well as reduced trip lengths due to increased connections to the external network.

6.3 REDUCTIONS ACHIEVED BY TRAFFIC STUDY

Based on the measures included in the traffic study and the adjusted VMT and trip generation estimate for the project, the ROG and NO_X emission reductions are shown below in Table 5.

Table 5 Emission Reduction Achieved by Traffic Study

	ROG tons/year	NO_X tons/year
35 Percent Reduction Target[1]	1.5	7.9
Reductions from Traffic Study	0.9[2]	4.6[2]
Reductions Still Needed	**0.6**	**3.2**

Notes: Totals may not sum exactly due to rounding. NO_X = oxides of nitrogen; ROG = reactive organic gases; tons/year = tons per year.

[1] A 35 percent mitigation target is required by this project per SMAQMD guidance as it has not been included in the current adopted SIP. The reduction target of 35 percent is calculated based on the total ROG and NO_X emissions from the mobile sector.

[2] Reductions from traffic study represent most conservative reduction, regardless of which season output showed higher emissions.

6.4 ADDITIONAL MEASURES NOT INCLUDED IN TRAFFIC STUDY

Based on the emission reduction associated with the traffic study alone, the project would not meet the reduction target of 35 percent for either ROG or NO_X emissions. As such, additional reduction measures were identified and their effectiveness quantified with additional model runs in CalEEMod. This section provides detailed calculations of all additional reduction measures, on- and off-site, to reach the reduction target of 35 percent.

6.4.1 Project Setting for Applying Air Quality Emissions Reductions

The Project Setting feature in CalEEMod was used for this AQMP and set to "Low Density Suburban." The Project Setting feature is required to be used to help predict the efficacy of the traffic-related mitigation measures. The AQMP Guidance states that "Low Density Suburban" matches the California Air Pollution Control Officers Association (CAPCOA) land use setting "Suburban" (CAPCOA 2010). This setting was chosen based on the definition in CAPCOA's *Quantification of Greenhouse Gas Mitigation Measures* for "Suburban," which is characterized by "dispersed, low-density, single-use, automobile dependent land use patterns, usually outside of the central city." This matches the characteristics of the development proposed in the Panhandle PUD project.

6.4.2 Measure Feasibility

The AQMP Guidance includes mitigation measures that are available to reduce ozone precursors, particulate matter, and greenhouse gas emissions from a project that are considered feasible by SMAQMD. Measures that are considered infeasible include the following:

- **LUT-1 (Increase Density):** The project proposes residential densities between 4.5 and 7.5 du/na, while the measure requires a density of at least 8 du/na. For this reason, LUT-1 is considered infeasible.
- **LUT-3 (Increase Diversity):** The project does not include mixed use development, although there are multiple land use types on the project site. The project does not include combined uses on a single site or in a single building. For this reason, LUT-3 is considered infeasible.
- **LUT-6 (Integrate Below Market Rate Housing):** The project proposes to incorporate single-family houses of various sizes and for various income levels but does not have a deed-restricted low-income housing component on-site. For this reason, LUT-6 is considered infeasible.
- **SDT-3 (Implement NEV Network):** The project proposes to include a mode share that includes pedestrians, bicyclist, and transit users, but does not propose including neighborhood electric vehicles (NEV) infrastructure. For this reason, SDT-3 is not included as a feasible mitigation measure.
- **PDT-1 (Limit Parking Supply) and PDT-2 (Unbundle Parking Costs**): The project consists primarily of residential development, with public parking at parks and schools only. Driveways and garages would provide the majority of residential parking and would not be separated from the price of the houses. For these reasons, PDT-1 and PDT-2 are not included as feasible mitigation measures.
- **TST-1 (Provide BRT System), TST-3 (Expand Transit Network), and TST-4 (Increase Transit Frequency):** The project would join the North Natomas TMA but would not provide additional bus or transit routes as part of the project. Through the participation in the North Natomas TMA, transit frequency may increase, but this is not a project component. For these reasons, TST-1, TST-3, and TST-4 are not included as feasible mitigation measures.

- **BE-1 (Exceed Title 24):** The project would comply with the 2016 Title 24 standards, which are 28 percent and 5 percent more energy efficient than 2013 Title 24 standards for residential and nonresidential buildings, respectively. There is insufficient information available through the California Energy Commission to exceed the current standards. The anticipated operational year of 2036 for the project suggests that newer building energy efficiency requirements will be in place, which the project would comply with. For this reason, BE-1 is not included as a feasible mitigation measure.

6.4.3 SDT-1 Improve Pedestrian Network

Measure Description: The project will provide a pedestrian access network that internally links all uses and connects to all existing or planned external streets and pedestrian facilities contiguous with the project site. Emission reductions are awarded based on the project location, "Low Density Suburban" for this project, which is selected from the drop-down menu in CalEEMod.

- To qualify for the "project" setting the project must minimize barriers to pedestrian access and interconnectivity. Physical barriers such as walls, landscaping, and slopes that impede pedestrian circulation are eliminated. Project design includes a designed pedestrian route interconnecting all site entrances, primary building entrances, public facilities, and adjacent uses to existing external pedestrian facilities and streets. Route has minimal conflict with parking and automobile circulation facilities. Streets (with the exception of alleys) within the project have sidewalks. All sidewalks feature vertical curbs or planting strips separating the sidewalk from the parking or travel lane. Pedestrian facilities and improvements such as grade separation, wider sidewalks, and traffic calming are implemented wherever feasible to minimize pedestrian barriers.

- To qualify for the "project and off site" setting, the project must qualify for all the requirements of the "project" setting and implement improvements to off-site pedestrian network, or connect with existing off-site pedestrian connections similar to those described as the "project" setting.

Project Applicability: The project would include sidewalks on all internal streets and provide pedestrian connections to existing trails in the NNCP. All sidewalks on the project site would be at least 5 feet in width and have vertical curbs to separate pedestrians from the travel lane. The area surrounding the project site features existing pedestrian infrastructure with which the project would connect. As detailed in Mitigation Measure 5.11-3b of the DEIR, a neighborhood traffic management plan would be developed that would address travel speed and safe pedestrian crossings. Further, the pedestrian facilities proposed on the project site would be consistent with the City of Sacramento's Pedestrian Master Plan. As stated in the Panhandle PUD Guidelines, one of the PUD design objectives is to promote pedestrian circulation.

ROG and NO_X Reduction: Implementation of this measure would reduce ROG by 0.03 tons/year and NO_X by 0.1 tons/year.

Enforcement: Incorporation into the project design and required as a provision of this AQMP by Mitigation Measure 5.2-2 in the Draft EIR.

6.4.4 SDT-2 Provide Traffic Calming Measures

Measure Description: The project provides traffic calming measures to encourage people to walk or bike instead of using a vehicle. Project design includes pedestrian/bicycle safety and traffic calming measures in excess of jurisdiction requirements. Roadways are designed to reduce motor vehicle speeds and encourage pedestrian and bicycle trips with traffic calming features.

Project Applicability: The project would have at least three traffic circles to reduce motor vehicle speeds. All roads in the project would have either a Class 2 or 3 bike route to ensure pedestrian safety, as well as a separate Class 1 bikeway. All streets would feature sidewalks with vertical curbs to protect pedestrians from travel lanes. Exhibit 6 in Appendix A shows bicycle routes and traffic circles within project site.

ROG and NO_X Reduction: Implementation of this measure would reduce ROG by 0.07 tons/year and NO_X by 0.3 tons/year.

Enforcement: Incorporation into the project design and required as a provision of this AQMP by Mitigation Measure 5.2-2 in the Draft EIR.

6.4.5 TRT-1&2 Implement Trip Reduction Program

Measure Description: Research and SMAQMD experience suggest that providing commute trip reduction programs increases sustainable mode share for the commute and results in about a five percent decrease in vehicle miles traveled. SMAQMD determines compliance if a project permanently joins a Transportation Management Association (TMA) to be funded through a Community Facilities District, County Service Area, or other non-revocable funding mechanism.

Project Applicability: The project applicant would join the North Natomas TMA to increase sustainable mode share and decrease vehicle miles traveled. The project would also incorporate Mitigation Measure 5.11-7 in the DEIR, which requires the applicant to coordinate with Regional Transit (or other transit operators such as North Natomas TMA) to plan, fund, and implement transit facilities and services to meet transit demand of the project. The implementation of this mitigation measure would further reduce trips generated by the project.

ROG and NO_X Reduction: Implementation of this measure would reduce ROG by less than 0.01 tons/year and NO_X by less than 0.01 tons/year.

Enforcement: Incorporation into the project design and required as a provision of this AQMP by Mitigation Measure 5.2-2 in the Draft EIR.

6.4.6 ROG and NO_X Offsite Mitigation

Measure: The project would achieve additional necessary emissions reduction by participating in an offsite mitigation program that achieves a reduction of 0.4 tons/year of ROG and 1.9 tons/year of NO_X. The program would be approved by the City of Sacramento in consultation with SMAQMD. One such program the project could use is SMAQMD's woodstove and fireplace replacement program that aims to reduce ROG, NO_X, and PM_{10} emissions from residences in the Sacramento Valley Air Basin. Wood smoke created from the use of wood and pellets in woodstoves and fireplaces result in significant emissions of NO_X, ROG, and PM_{10}, especially during the winter. SMAQMD will provide incentive funding for the change out of existing wood-burning devices for cleaner devices.

Project Applicability: The project, with the incorporation of all on-site mitigation measures of this AQMP would still not achieve the 35 percent reduction target for either ROG or NO_X. Thus, an additional 0.4 tons/year of ROG and 1.9 tons/year of NO_X would need to be offset. A one-time fee would be paid to SMAQMD that is equivalent to the amount of ozone precursors (ROG and NO_X) that exceed the 35 percent reduction target for the project, currently estimated at 1,663devices at an approximate cost of $594,270.00, plus administrative costs. The cost associated with the PUD portion of the project (excluding the Krumenacher Planned Development) would be approximately $365,939.16, plus administrative costs, based on the price per residential unit ($220.18). The fee and number of devices would be established at the time of payment by SMAQMD and based on the current effectiveness of the program, the price per pound to offset emissions, plus any administration fees.

ROG and NO_X Reduction: Implementation of this measure would reduce ROG by 0.4 tons/year and NO_X by 1.9 tons/year. Any excess ROG reduced may be considered NO_X reductions at the rate determined by the photochemical modeling for the 2008 State Implementation Plan (at a rate of 7 ROG to 1 NO_X).

Enforcement: Incorporation into the project design and required as a provision of this AQMP by Mitigation Measure 5.2-2 in the Draft EIR.

6.4.7 Additional Onsite Measures

Measure: The project shall incorporate the following electrical capabilities:

- All residential units shall include adequate wiring and infrastructure to support a 240-Volt electric vehicle charger in the garage or off-street parking area to allow for the future installation of electric vehicle chargers. This connection should be separate from the connection provided to power electric appliances.
- Electrical outlets shall be provided on the exterior of project buildings to allow sufficient powering of electric landscaping equipment.

Project Applicability: The project applicant would ensure all project buildings include sufficient interior and exterior electrical capacity to allow and promote building occupants to use electric appliances, vehicles, and landscaping equipment, rather than fossil fuel-based alternatives.

ROG and NO_X Reduction: Implementation of this measure would result in ROG and NO_X reductions if building occupants use electric-powered technologies. Because it is unknown how many occupants would use this equipment, quantification of this measure is not feasible.

Enforcement: Incorporation into the project design and required as a provision of this AQMP by Mitigation Measure 5.6-1a in the Draft EIR.

7 MITIGATED EMISSIONS SCENARIO AND REDUCTION TARGET ACHIEVEMENT

To generate the mitigated emissions scenario for the project, the unmitigated emissions scenario was altered to reflect project-specific traffic parameters described in the traffic study, adjustments for 2016 Title 24 standards, and all on-site feasible mitigation measures identified in Section 6 above (DKS 2017).

Based on the traffic study, the project's daily VMT in comparison to the existing conditions would be 152,688 and the annual VMT would be 55,731,120. Annual VMT was calculated by multiplying the daily VMT by 365 days per year. This represents a 33 percent reduction over the annual VMT calculated by CalEEMod for the unmitigated emissions scenario. The project's daily trip generation would be 24,270, based on the traffic study. This represents an 18 percent reduction over average daily trip generation calculated by CalEEMod for the unmitigated emissions scenario. Emissions estimated based on the project-specific traffic study (i.e., VMT and trip generation) are summarized below in Table 6.

Table 6 Summary of Mitigated Maximum Daily Operational Emissions Ozone Precursors at Full Buildout (2036)

Source-Type	tons/year		
	ROG	NO_X	PM_{10}
Area Source[1]	24.5	0.3	0.1
Energy[2]	0.4	3.2	0.3
Mobile Source[2]	3.4	17.5	19.8
Total Annual Emissions	**28.2**	**21.1**	**20.2**

Notes: NO_X = oxides of nitrogen, ROG = reactive organic gases; PM_{10} = respirable particulate matter; tons/year = tons per year.

Totals may not sum exactly because of rounding.

[1] Area-source emissions include emissions from landscaping, application of architectural coatings, and consumer products, and are estimated based on default model settings.

[2] Energy emissions include emissions associated with natural gas consumption for indoor heating/cooling and appliance use.

See Appendix B for detailed input parameters and modeling results.

Source: Modeling conducted by Ascent Environmental, Inc. in 2017

In addition to reductions achieved by the project-specific traffic study and all on-site measures, additional off-site mitigation was incorporated to achieve the 35 percent reduction target. Table 7 below summarizes all mitigation measures included in this AQMP that are required to meet the project's reduction target. The percent reductions for both ROG and NO_X are shown below based on implementation of the measures.

Table 7 Mitigation Measure Reduction Summary

Measure Identification	Measure Title	ROG Reduction (tons/year)	NO_X Reduction (tons/year)
SDT-1	Improve Pedestrian Network	0.03	0.1
SDT-2	Provide Traffic Calming Measures	0.07	0.3
TRT-1&2	Implement Trip Reduction Program	<0.01	<0.01
Traffic Study Design Features	Traffic Study VMT Adjustment	0.9	4.6
Title 24	2016 Title 24 Adjustment	0.1	1.0
Offsite Measure	ROG and NO_X Offsite Mitigation	0.4	1.9
Total		**1.5**	**7.9**
Target		**1.5**	**7.9**

Notes: NO_X = oxides of nitrogen, ROG = reactive organic gases; tons/year = tons per year; VMT= vehicle miles traveled.

Totals may not sum exactly because of rounding.

Source: Compiled by Ascent Environmental in 2017

8 CONCLUSION

The application of the above mitigation measures to the proposed project will meet the 35 percent emissions reduction target established by SMAQMD. Considering the mix of proposed land uses, incorporated bicycle and pedestrian facilities, and new roadways, and participation in SMAQMD's offsite ROG and NO_X reduction program, the Panhandle PUD project would result in a 35 percent reduction in long-term operational emissions of ozone precursors over unmitigated emissions.

None of the measures included in the project design would need ongoing monitoring beyond the completion date of the project. By meeting the 35 percent reduction target, as documented in this AQMP, the requirements of this AQMP have been met. A breakdown of on-site and off-site mitigation measured compared to the reduction target is shown below in Table 8.

Table 8 Reduction Target Summary

	ROG tons/year	NO_X tons/year	PM_{10} tons/year
35% Reduction Target[1]	1.5	7.9	NA
On-site Mitigation Achieved[2]	1.1	6.0	8.6
Offsite Mitigation Achieved	0.4	1.9	**8.1**
Total Mitigation Achieved	1.5	7.9	16.7

Notes: NO_X = oxides of nitrogen, ROG = reactive organic gases; PM_{10} = respirable particulate matter; tons/year = tons per year; NA = not applicable.

[1] A 35 percent mitigation target is required by this project per SMAQMD guidance as it has not been included in the current adopted SIP.

[2] Emissions reported from the mitigated CalEEMod run using project-specific trip rates.

Totals may not sum exactly because of rounding. Emissions reported have been rounded to the nearest tenth of a ton.

Source: Compiled by Ascent Environmental in 2017

9 REFERENCES

California Air Pollution Control Officers Association. 2016 (September). California Emissions Estimator Model Version 2016.3.1.

_____. 2010 (August). *Quantifying Greenhouse Gas Mitigation Measures*. Available: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf. Accessed June 1, 2017.

California Energy Commission. 2015 (June). "2016 Building Energy Efficiency Standards." Adoption Hearing. June 10, 2015.

CAPCOA. *See* California Air Pollution Control Officers Association.

City of Sacramento. 2017 (February). The Panhandle Planned Unit Development Guidelines. Internal Draft 1: February 27, 2017. Sacramento, CA.

_____. 1999. Sacramento City Code; reflects amendments through April 4, 2017. Sacramento, CA.

DKS. *See* DKS Associates.

DKS Associates. 2017 (August 10). Panhandle – No Commercial Alternative Trip Generation and VMT Analysis Summary. Prepared by DKS Associates.

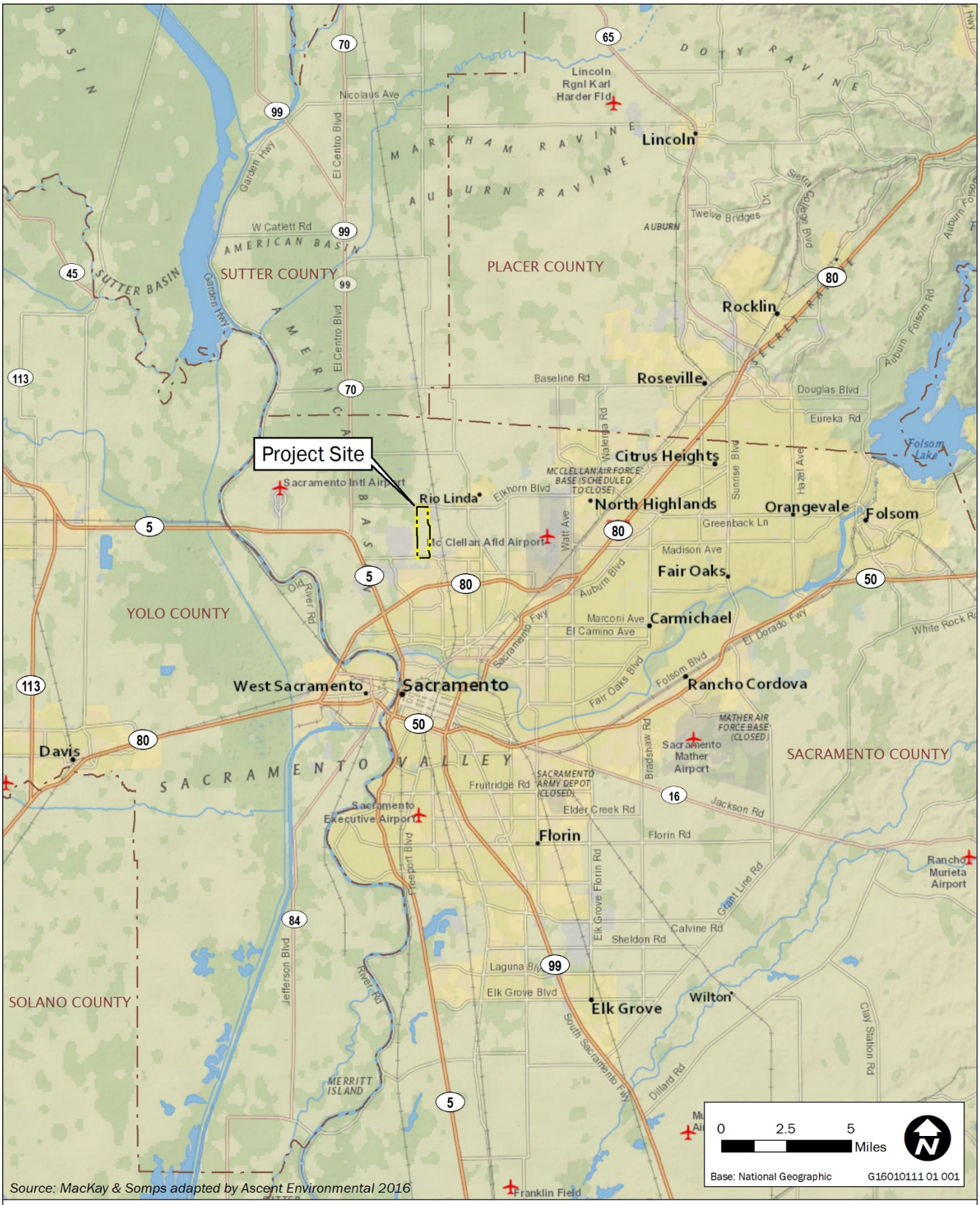
Sacramento Metropolitan Air Quality Management District (SMAQMD). 2016 (September 26). Recommended Guidance for Land Use Emission Reduction Version 3.3 for Operational Emissions.

Sacramento Regional Transit District. 2014. *Short Range Transit Plan.* Sacramento, CA.

SMAQMD. *See* Sacramento Metropolitan Air Quality Management District.

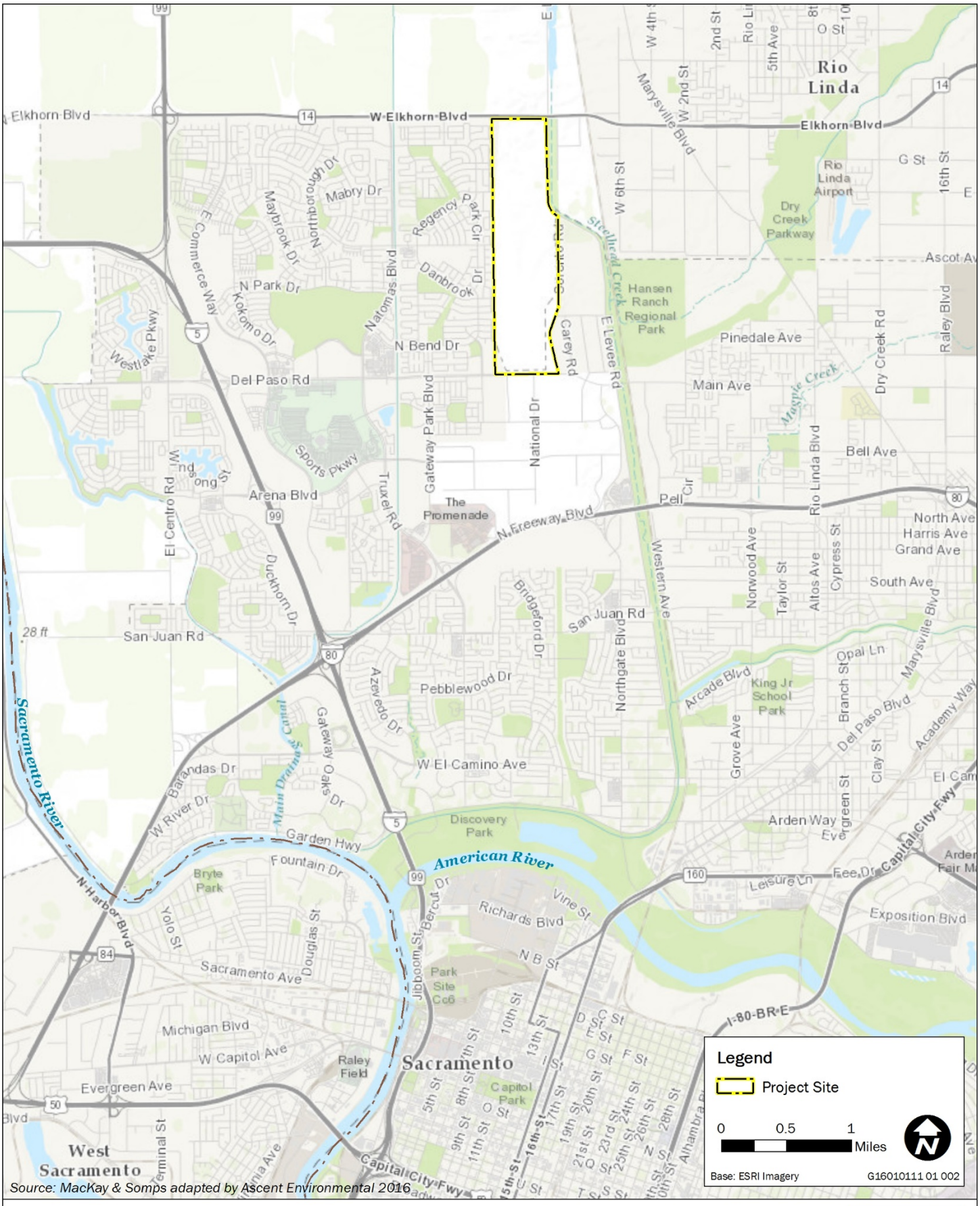
Appendix A

Exhibits to Support AQMP



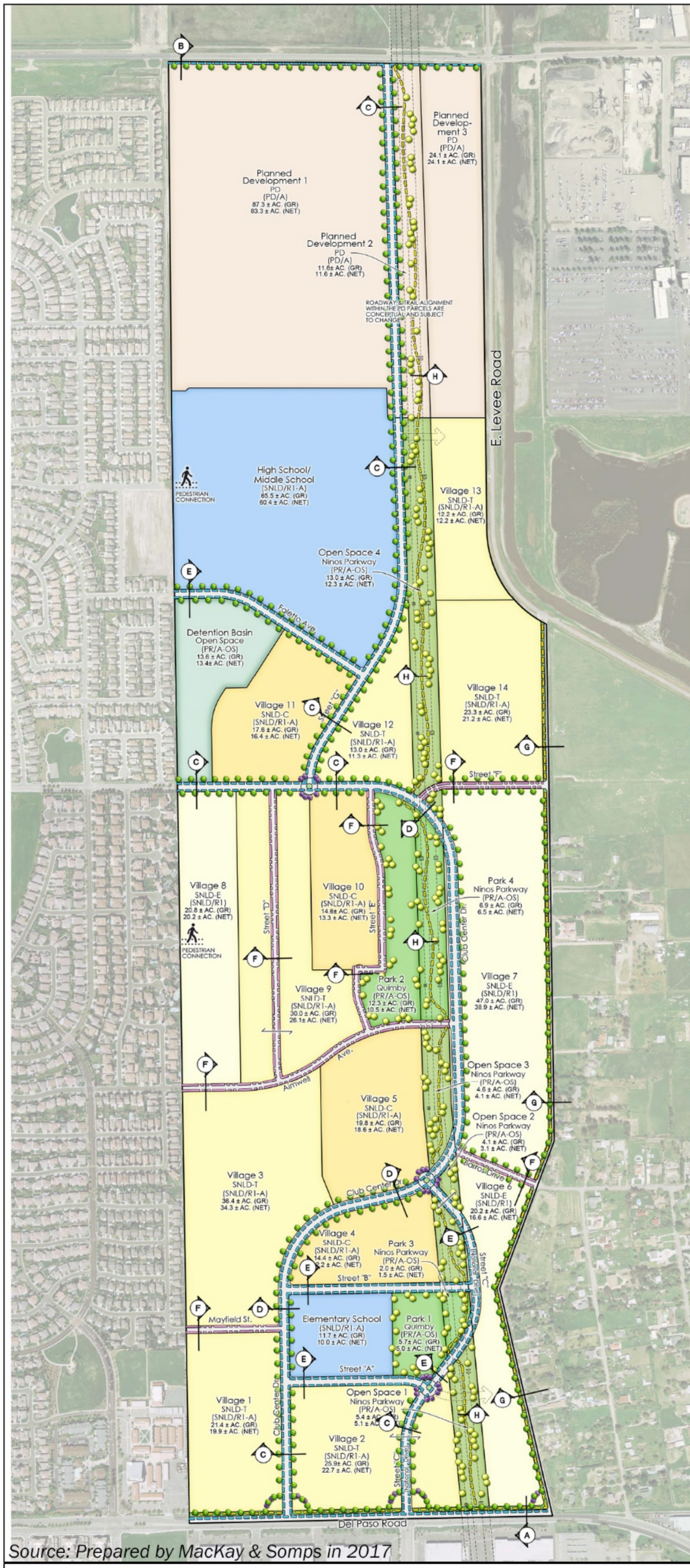
Source: MacKay & Somps adapted by Ascent Environmental 2016

Exhibit 1 **Regional Map**



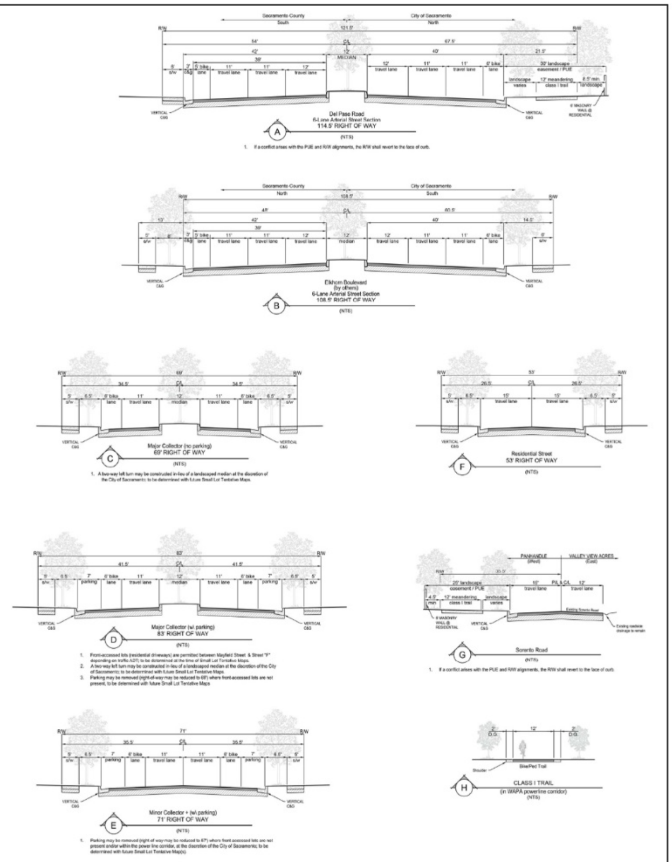
Source: MacKay & Somps adapted by Ascent Environmental 2016

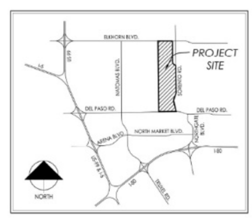
Exhibit 2 **Vicinity Map**



Planned Development 1
PD
(PD/A)
87.3 ± AC. (GR)
83.2 ± AC. (NET)
Planned Development 2
PD
(PD/A)
11.6± AC. (GR)
11.6 ± AC. (NET)
Planned Develop-ment 3
PD
(PD/A)
24.1 ± AC. (GR)
24.1 ± AC. (NET)
ROADWAY/TRAIL ALIGNMENT WITHIN THE PD PARCELS ARE CONCEPTUAL AND SUBJECT TO CHANGE
E. Levee Road
High School/ Middle School
(SNLD/R1-A)
65.5 ± AC. (GR)
60.4 ± AC. (NET)
PEDESTRIAN CONNECTION
Village 13
SNLD-T
(SNLD/R1-A)
12.2 ± AC. (GR)
12.2 ± AC. (NET)
Open Space 4
Ninos Parkway
(PR/A-OS)
13.0 ± AC. (GR)
12.3 ± AC. (NET)
Detention Basin
Open Space
(PR/A-OS)
13.6 ± AC. (GR)
13.4± AC. (NET)
Village 11
SNLD-C
(SNLD/R1-A)
17.6 ± AC. (GR)
16.4 ± AC. (NET)
Village 12
SNLD-T
(SNLD/R1-A)
13.0 ± AC. (GR)
11.3 ± AC. (NET)
Village 14
SNLD-T
(SNLD/R1-A)
23.3 ± AC. (GR)
21.2 ± AC. (NET)
Street "F"
Village 8
SNLD-E
(SNLD/R1)
20.8 ± AC. (GR)
20.2 ± AC. (NET)
Village 10
SNLD-C
(SNLD/R1-A)
14.6± AC. (GR)
13.3 ± AC. (NET)
Park 4
Ninos Parkway
(PR/A-OS)
6.9 ± AC. (GR)
6.5 ± AC. (NET)
Club Center Dr.
Street "D"
Street "E"
Village 9
SNLD-T
(SNLD/R1-A)
30.0 ± AC. (GR)
28.1± AC. (NET)
Park 2
Quimby
(PR/A-OS)
12.3 ± AC. (GR)
10.5 ± AC. (NET)
Village 7
SNLD-E
(SNLD/R1)
47.0 ± AC. (GR)
38.9 ± AC. (NET)
Airwell Ave.
Open Space 3
Ninos Parkway
(PR/A-OS)
4.6 ± AC. (GR)
4.1 ± AC. (NET)
Village 5
SNLD-C
(SNLD/R1-A)
19.8 ± AC. (GR)
18.6 ± AC. (NET)
Open Space 2
Ninos Parkway
(PR/A-OS)
4.1 ± AC. (GR)
3.1 ± AC. (NET)
Village 3
SNLD-T
(SNLD/R1-A)
36.4 ± AC. (GR)
34.3 ± AC. (NET)
Club Center Dr.
Village 6
SNLD-E
(SNLD/R1)
20.2 ± AC. (GR)
16.6 ± AC. (NET)
Village 4
SNLD-C
(SNLD/R1-A)
14.4 ± AC. (GR)
Park 3
Ninos Parkway
(PR/A-OS)
2.0 ± AC. (GR)
1.5 ± AC. (NET)
Street "B"
Street "C"
Mayfield St.
Elementary School
(SNLD/R1-A)
11.7 ± AC. (GR)
10.0 ± AC. (NET)
Park 1
Quimby
(PR/A-OS)
5.7± AC. (GR)
5.0 ± AC. (NET)
Street "A"
Open Space 1
Ninos Parkway
(PR/A-OS)
Village 1
SNLD-T
(SNLD/R1-A)
21.4 ± AC. (GR)
19.9 ± AC. (NET)
Village 2
SNLD-T
(SNLD/R1-A)
25.9± AC. (GR)
22.7 ± AC. (NET)
Club Center Dr.
Del Paso Road

Source: Prepared by MacKay & Somps in 2017





LAND USE SUMMARY					
PUD Land Use*	General Plan	Zoning	Acres (G)	Acres (N)	Units
SNLD-E	SNLD (3-8 du/ac)	R-1	88.0±	75.7±	340±
SNLD-T	SNLD (3-8 du/ac)	R1-A	162.2±	147.7±	869±
SNLD-C	SNLD (3-8 du/ac)	R1-A	66.4±	60.5±	453±
Elementary School	SNLD (3-8 du/ac)	R1-A	11.7±	10.0±	
High School / Middle School	SNLD (3-8 du/ac)	R1-A	65.5±	60.4±	
Park - Quimby	PR	A-OS	10.0±	15.5±	
Park - Ninos Parkway	PR	A-OS	8.9±	8.0±	
Open Space - Ninos Parkway	PR	A-OS	27.1±	24.6±	
Detention Basin - Open Space	PR	A-OS	13.6±	13.4±	
Planned Development (Krumenacher Property)	PD	A	123.0±	119.0±	
Major Roads (Del Paso Rd & Elkhorn Blvd)	varies	varies	5.0±	5.0±	
Collector and Residential Streets	varies	varies	0.0±	49.6±	
		TOTALS	589.4±	589.4±	1,662± DU

*SNLD = Suburban Neighborhood Low Density (Detached Single-Family Residential)
-E = Estate (4.5 du/ac average net density)
-T = Traditional (6.0 du/ac average net density)
-C = Compact (7.5 du/ac average net density)

BIKE LANE CLASSIFICATION

- CLASS I BIKE TRAIL
- CLASS II BIKE LANE (on-street)
- CLASS III BIKE ROUTE (on-street)
- CLASS III BIKE ROUTE (on-street)

*Class I & II bike trail/lane locations are approximate and subject to change. Conceptual round-a-bout/traffic circles; feasibility, location, and design to be determined with future Small Lot Tentative Subdivision Map(s).

NORTH
FEET

X16010111 01 031

Exhibit 3 **Panhandle PUD Schematic Plan**

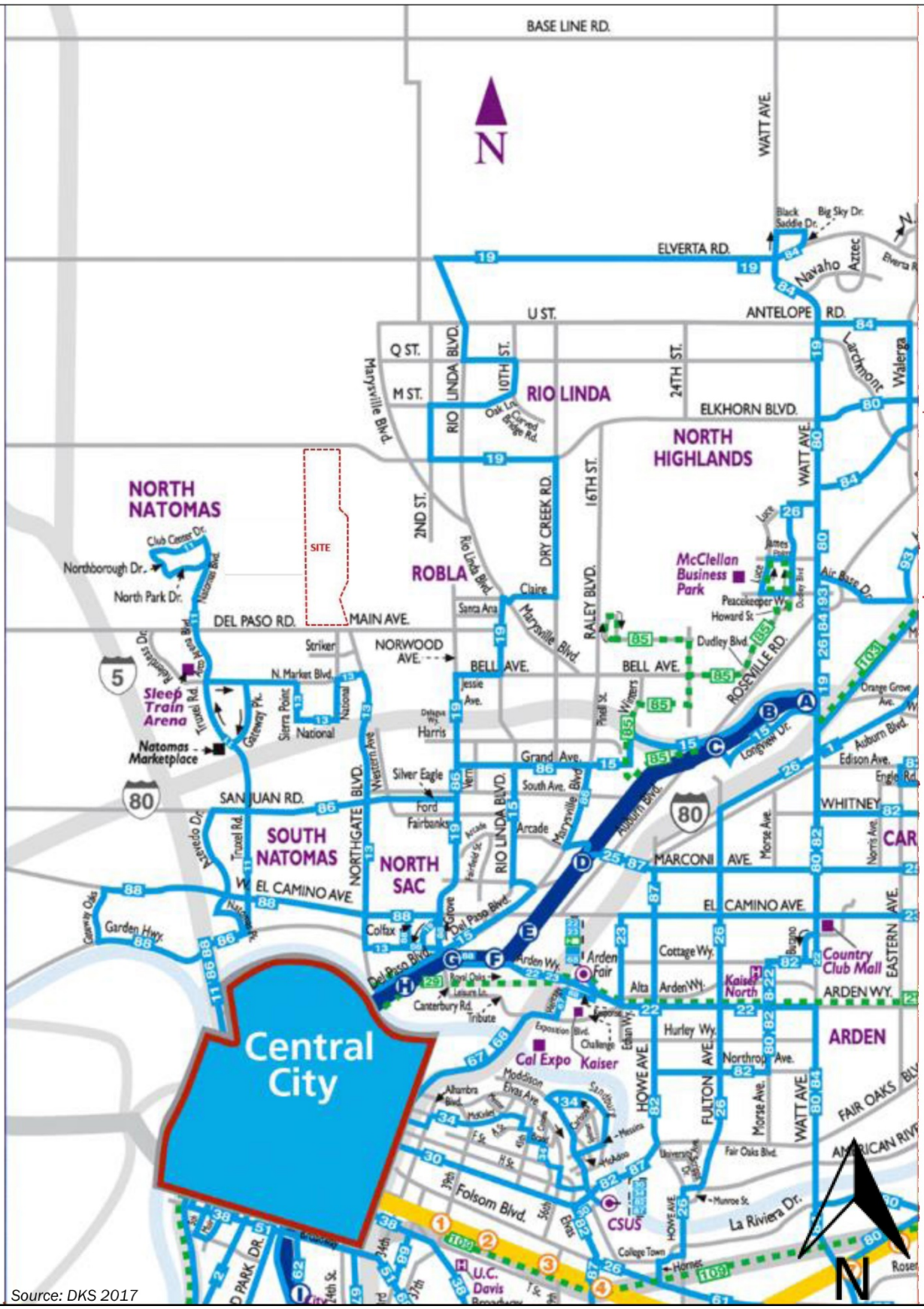
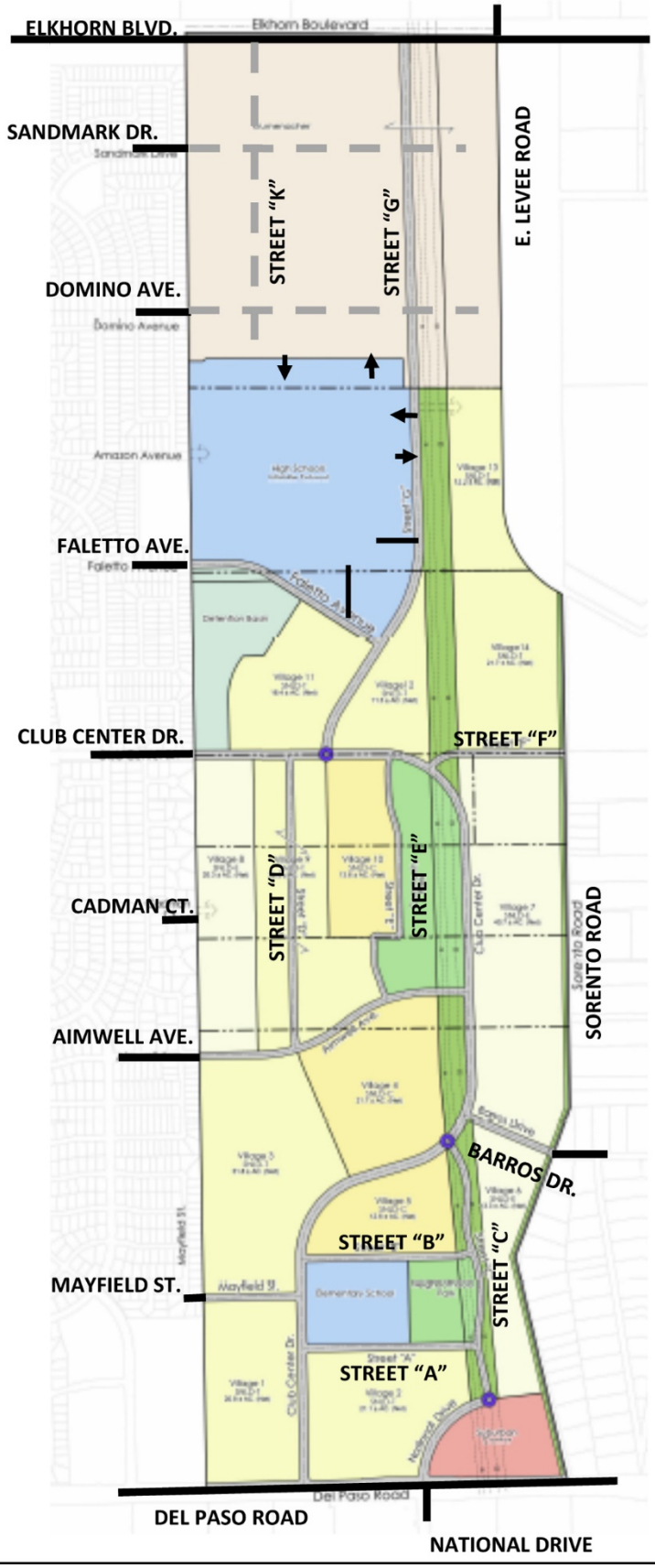


Exhibit 4 **Regional Transit Services**



Source: DKS 2017

X16010111 01 014

Exhibit 5

Project Circulation Plan*
(see Exhibit 3 for updated site plan)

ASCENT ENVIRONMENTAL

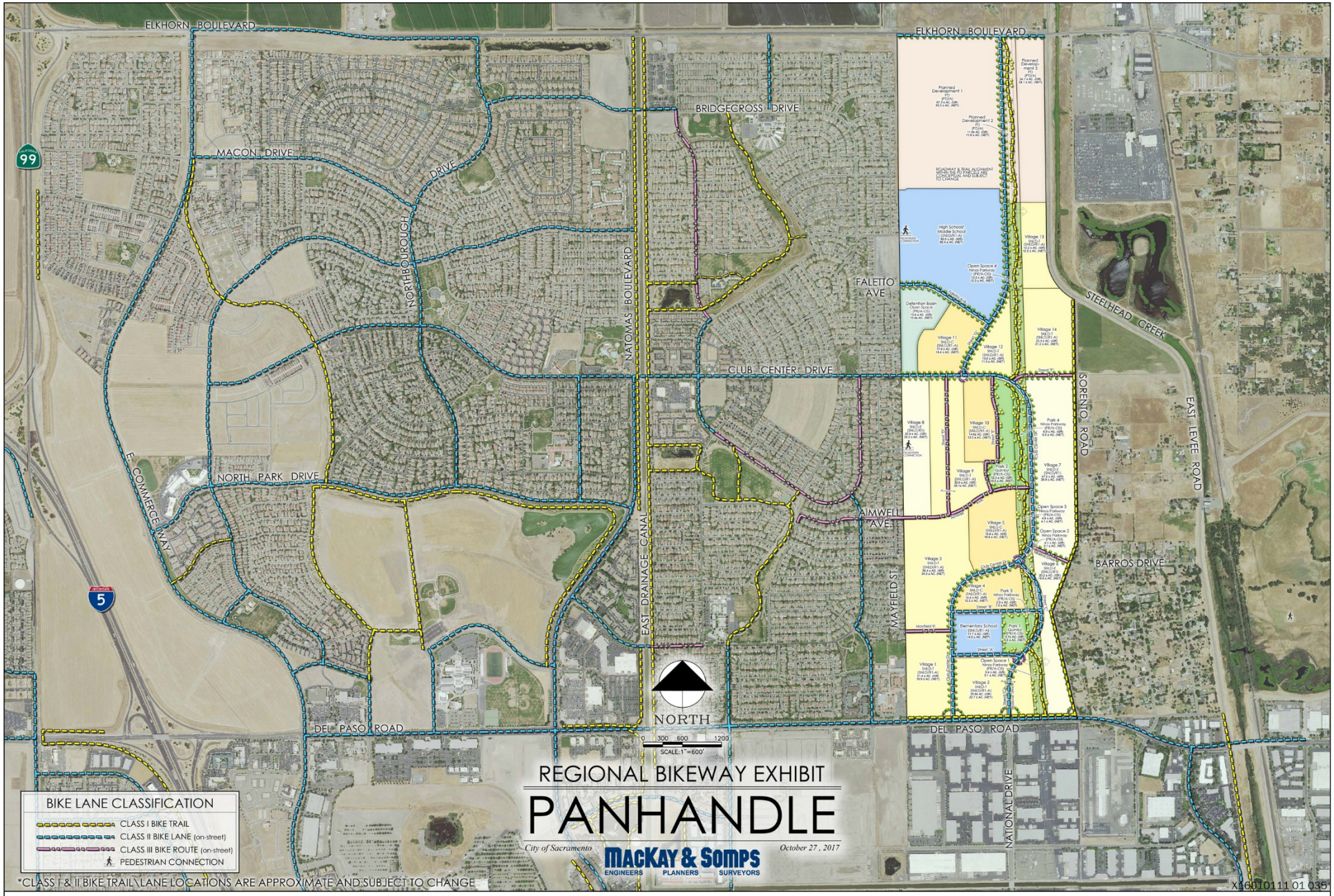
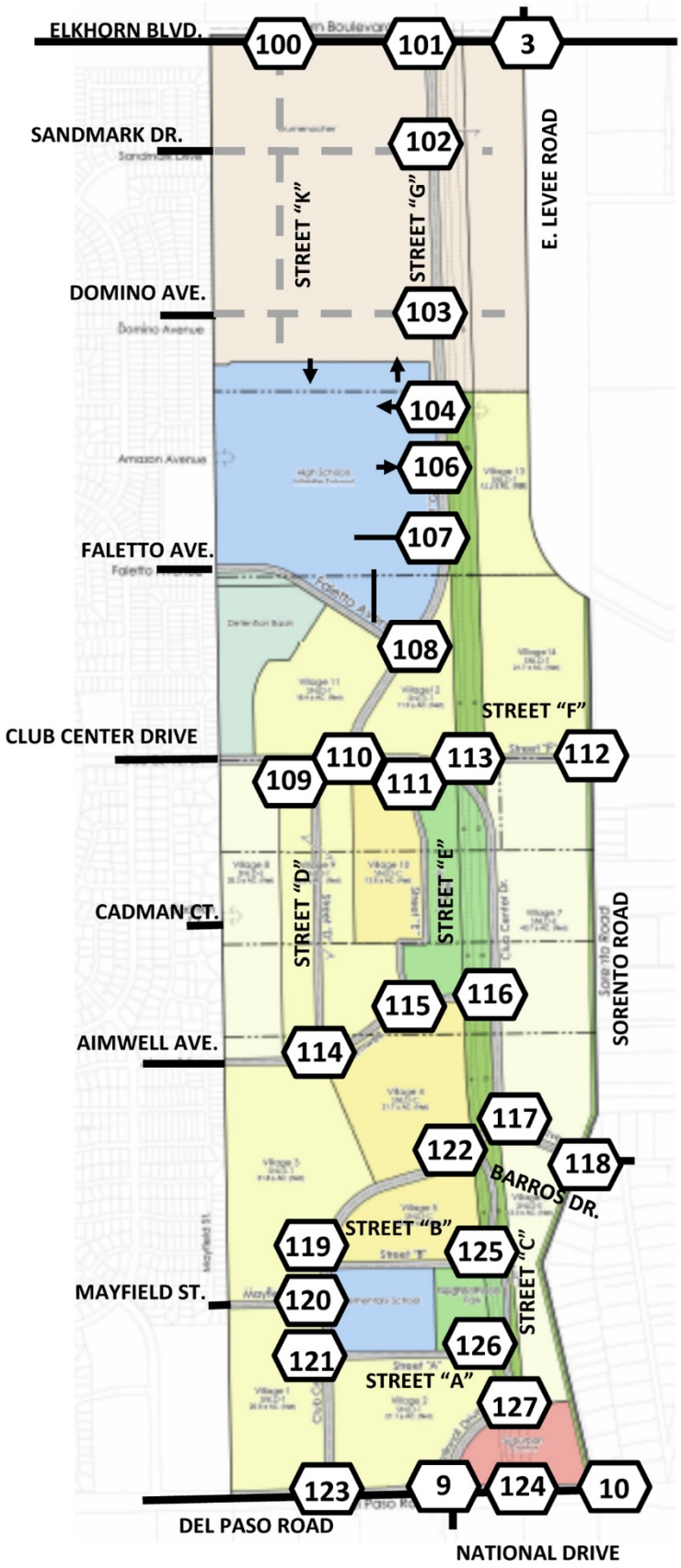


Exhibit 6

Project Bike Plan and Regional Bikeway Connections

ASCENT ENVIRONMENTAL



Source: DKS 2017

X16010111 01 019

Exhibit 7 **Intersection Study Area**

Appendix B

AQMP Modeling and Calculations

Traffic Study & Title 24 Adjusted Project Emissions					
Category	ROG (tons/year)	NOX (tons/year)	PM10 (tons/year)	ROG Reduction (tons/year)	NOx Reduction (tons/year)
Area	24.4913	0.3204	0.1545		
Energy	0.3754	3.2236	0.2596	0.12	1.03
Mobile	3.4281	17.8381	20.8327	0.90	4.6396
Total	**28.29**	**21.38**	**21.25**	**1.02**	**5.67**
Reduction still needed				**0.61**	**3.23**

Traffic Study, Title 24, Mitigation Measures Adjusted Project Emissions						
Category	ROG (tons/year)	NOX (tons/year)	PM10 (tons/year)	ROG Reduction (tons/year)	NOx Reduction (tons/year)	
Area	24.4913	0.3204	0.1545			
Energy	0.3754	3.2236	0.2593			
Mobile	3.3626	17.5174	19.7894			
Total	**28.23**	**21.06**	**20.20**	**1.09**	**5.99**	8.06
Reduction still needed				**0.43**	**1.87**	

Mobile Sector Unmitigated Emissions				
Run	ROG (tons/year)	NOx (tons/year)	ROG Reduction Target (tons/year)	NOx Reduction Target (tons/year)
Baseline	4.3286	22.4777	**1.5**	**7.9**

Reduction targets based on 35% reduction from both ROG and NOx separately

Unmitigated Project Emissions								
Run	ROG (tons/year)	NOX (tons/year)	CO (tons/year)	SO2 (tons/year)	Fugitive PM10 (tons/year)	Exhaust PM10 (tons/year)	Fugitive PM2.5 (tons/year)	Exhaust PM2.5 (tons/year)
Baseline	29.3161	27.0552	79.8381	0.2642	27.6427	0.618	0.6094	8.0106

CalEEMod VMT Calculator (UNMITIGATED SCENARIO)

This calculator was created based on the default trip inputs for the unmitigated CalEEMod run. The calculator calculates the annual VMT from the proposed project using the same methodology from CalEEMod, described in Appendix A, for the UNMITIGATED SCENARIO. This calculator can be used to adjust land use trip rates for the MITIGATED PROJECT scenario which is based on the traffic study conducted for the project

Trip Type

CalEEMod defaults based on land uses inputted

Land Use	Size Metric	Amount	Weekday Trip Rate (size/day)	Sat Trip Rate (size/day)	Sun Trip Rate (size/day)	Miles			Trip %			Trip Purpose		
						H-w or C-W	H-S or C-C	H-O or C-O	H-w or C-W	H-S or C-C	H-O or C-O	Primary	Diverted	Pass-by
city park	acre	57.8	1.89	22.75	16.74	10.00	5.00	6.50	33.0%	48.0%	19.0%	66.0%	28.0%	6.0%
elementary school	student	500	1.29	0	0	10.00	5.00	6.50	65.0%	30.0%	5.0%	63.0%	25.0%	12.0%
junior high school	student	2800	1.62	0	0	10.00	5.00	6.50	72.8%	22.2%	5.0%	63.0%	25.0%	12.0%
Single Family Home	dwelling unit	2699	9.52	9.91	8.62	10.00	5.00	6.50	46.5%	12.5%	41.0%	86.0%	11.0%	3.0%

Total Trips

Total Trips = (TripRate weekday x 5 +Trip Sat + Trip Sun)

Average Daily Trips Based on CalEEMod Trip Gen Defaults per land use unit. Total trips Calculated

Land Use	Average Daily Trip Rate			
	weekday	Saturday	Sunday	Total Trips (weekly)
city park	109.24	1,314.95	967.57	**2,828.73**
elementary school	645.00	0.00	0.00	**3,225.00**
junior high school	4,536.00	0.00	0.00	**22,680.00**
Single Family Home	25,694.48	26,747.09	23,265.38	**178,484.87**
	30,984.72	**28,062.04**	**24,232.95**	**207,218.60**

Trip Length Calc

AVG Trip Length = Link % primary x trip length primary+link % divertedx0.25x length trip primary+link % passbyx0.1

Trip length calculated for each trip type based on trip purpose % and length defaults from CalEEMod

Land Use

		trip length			trip length			
city park	link % primary	primary	link % diverted	Constant (0.25)	primary	link % passby	constant	Trip Length
H-W or c-w	66.0%	10.00	28.0%	0.25	10	6.0%	0.1	7.3
h-s or c-c	66.0%	5.00	28.0%	0.25	5	6.0%	0.1	3.7
h-o or c-o	66.0%	6.50	28.0%	0.25	6.5	6.0%	0.1	4.8
elementary school								
H-W or c-w	63.0%	10.00	25.0%	0.25	10.00	12.0%	0.1	6.9
h-s or c-c	63.0%	5	25.0%	0.25	5.00	12.0%	0.1	3.5
h-o or c-o	63.0%	6.5	25.0%	0.25	6.50	12.0%	0.1	4.5
Junior high school								
H-W or c-w	63.0%	10	25.0%	0.25	10.00	12.0%	0.1	6.9
h-s or c-c	63.0%	5	25.0%	0.25	5.00	12.0%	0.1	3.5
h-o or c-o	63.0%	6.5	25.0%	0.25	6.50	12.0%	0.1	4.5
Single Family Home								
H-W or c-w	86.0%	10	11.0%	0.25	10	3.0%	0.1	8.9
h-s or c-c	86.0%	5	11.0%	0.25	5	3.0%	0.1	4.4
h-o or c-o	86.0%	6.5	11.0%	0.25	6.5	3.0%	0.1	5.8

VMT Calc Per Land Use Type (Weekly)

VMT = #Trips x AVG Trip Length per land use and trip type

Trip number for each trip type are derived by multiplying the total trips for each land use calculated above in the Total Trip Calcs by the trip % shown in the Trip Type table for each land use

city park	# trips	trip length	Weekly VMT	Annual VMT
H-W or c-w	933	7.3	6,820	
h-s or c-c	1,358	3.7	4,964	
h-o or c-o	537	4.8	2,553	
Total VMT			14,338	745,553.62
elementary school				
H-W or c-w	2,096	6.9	14,542	
h-s or c-c	968	3.5	3,362	
h-o or c-o	161	4.5	728	
Total VMT			18,631	968,813
junior high school				
H-W or c-w	16,511	6.9	114,537	
h-s or c-c	5,035	3.5	17,494	
h-o or c-o	1,134	4.5	5,118	
Total VMT			137,149	7,131,752
Single Family Home				
H-W or c-w	82,995	8.9	736,834	
h-s or c-c	22,311	4.4	99,070	
h-o or c-o	73,179	5.8	422,370	
Total VMT			1,258,274	65,430,233

Annual VMT Calc

the calculated weekly VMT for each land use is summed. This value is multiplied by 50 weeks/year to equal the annual VMT number calculated by CalEEMod

Summed Weekly VMT from Each Land Use	1,428,391.39	
Weeks per Year CalEEMod Uses for Annual VMT	52.00	
Calculated Annual VMT	**74,276,352**	67,144,600
		203,497

CalEEMod VMT Calculator (MITIGATED SCENARIO)

This calculator was created based on the default trip inputs for the unmitigated CalEEMod run. The calculator calculates the annual VMT from the proposed project using the same methodology from CalEEMod, described in Appendix A, for the MITIGATED SCENARIO. This calculator can be used to adjust land use trip rates for the MITIGATED PROJECT scenario which is based on the traffic study conducted for the project

Daily VMT Provided by Traffic Study	**152,688**
Annual VMT	**55,731,120**
Daily Trips Provided by Traffic Study	**24,270**
Total Trips (weekly)	**169,890**

Trip Type

CalEEMod defaults based on land uses inputted

Land Use	Size Metric	Amount	Weekday Trip Rate (size/day)	Sat Trip Rate (size/day)	Sun Trip Rate (size/day)	Miles			Trip %			Trip Purpose		
						H-w or C-W	H-S or C-C	H-O or C-O	H-w or C-W	H-S or C-C	H-O or C-O	Primary	Diverted	Pass-by
city park	acre	57.8	1.5571	17.3010	16.0554	5.00	4.99	6.55	33.0%	48.0%	19.0%	66.0%	28.0%	6.0%
elementary school	student	500	1.0000	0.0000	0.0000	5.00	5.00	6.60	65.0%	30.0%	5.0%	63.0%	25.0%	12.0%
junior high school	student	2800	1.0714	0.0000	0.0000	10.00	5.00	6.50	72.8%	22.2%	5.0%	63.0%	25.0%	12.0%
Single Family Home	dwelling unit	2699	7.4102	9.9100	8.6200	8.50	4.90	6.50	46.5%	12.5%	41.0%	86.0%	11.0%	3.0%

Total Trips

Total Trips = (TripRate weekday x 5 +Trip Sat + Trip Sun)

Average Daily Trips Based on CalEEMod Trip Gen Defaults per land use unit. Total trips Calculated

Land Use	Average Daily Trip Rate			
	weekday	Saturday	Sunday	Total Trips (weekly)
city park	90.00	1,000.00	928.00	**2,378.00**
elementary school	500.00	0.00	0.00	**2,500.00**
junior high school	3,000.00	0.00	0.00	**15,000.00**
Single Family Home	20,000.00	26,747.09	23,265.38	**150,012.47**
	23,590.00	**27,747.09**	**24,193.38**	**169,890.47**

Trip Length Calc

AVG Trip Length = Link % primary x trip length primary+link % divertedx0.25x length trip primary+link % passbyx0.1

Trip length calculated for each trip type based on trip purpose % and length defaults from CalEEMod

Land Use

		trip length			trip length			
city park	link % primary	primary	link % diverted	Constant (0.25)	primary	link % passby	constant	Trip Length
H-W or c-w	66.0%	5.00	28.0%	0.25	5	6.0%	0.1	3.7
h-s or c-c	66.0%	4.99	28.0%	0.25	4.99	6.0%	0.1	3.6
h-o or c-o	66.0%	6.55	28.0%	0.25	6.55	6.0%	0.1	4.8
elementary school								
H-W or c-w	63.0%	5.00	25.0%	0.25	5.00	12.0%	0.1	3.5
h-s or c-c	63.0%	5	25.0%	0.25	5.00	12.0%	0.1	3.5
h-o or c-o	63.0%	6.6	25.0%	0.25	6.60	12.0%	0.1	4.6
Junior high school								
H-W or c-w	63.0%	10	25.0%	0.25	10.00	12.0%	0.1	6.9
h-s or c-c	63.0%	5	25.0%	0.25	5.00	12.0%	0.1	3.5
h-o or c-o	63.0%	6.5	25.0%	0.25	6.50	12.0%	0.1	4.5
Single Family Home								
H-W or c-w	86.0%	8.5	11.0%	0.25	8.5	3.0%	0.1	7.5
h-s or c-c	86.0%	4.9	11.0%	0.25	4.9	3.0%	0.1	4.4
h-o or c-o	86.0%	6.5	11.0%	0.25	6.5	3.0%	0.1	5.8

VMT Calc Per Land Use Type (Weekly)

VMT = #Trips x AVG Trip Length per land use and trip type

Trip number for each trip type are derived by multiplying the total trips for each land use calculated above in the Total Trip Calcs by the trip % shown in the Trip Type table for each land use

city park	# trips	trip length	Weekly VMT	Annual VMT
H-W or c-w	785	3.7	2,869	
h-s or c-c	1,141	3.6	4,165	
h-o or c-o	452	4.8	2,163	
Total VMT			9,197	478,237.23
elementary school				
H-W or c-w	1,625	3.5	5,646	
h-s or c-c	750	3.5	2,606	
h-o or c-o	125	4.6	573	
Total VMT			8,825	458,887
junior high school				
H-W or c-w	10,920	6.9	75,752	
h-s or c-c	3,330	3.5	11,570	
h-o or c-o	750	4.5	3,385	
Total VMT			90,707	4,716,767
Single Family Home				
H-W or c-w	69,756	7.5	526,430	
h-s or c-c	18,752	4.4	81,602	
h-o or c-o	61,505	5.8	354,992	
Total VMT			963,024	50,077,238

Annual VMT Calc

the calculated weekly VMT for each land use is summed. This value is multiplied by 50 weeks/year to equal the annual VMT number calculated by CalEEMod

Summed Weekly VMT from Each Land Use	1,071,752.49	
Weeks per Year CalEEMod Uses for Annual VMT	52.00	
Calculated Annual VMT	**55,731,129**	9
		152,688

Mobile Sector Unmitigated Emissions				
Run	ROG (tons/year)	NOx (tons/year)	ROG Reduction Target (tons/year)	NOx Reduction Target (tons/year)
Baseline	4.3286	22.4777	**1.5**	**7.9**

Reduction targets based on 35% reduction from both ROG and NOx separately

Unmitigated Project Emissions								
Run	ROG (tons/yea	NOX (tons/yea	CO (tons/year)	SO2 (tons/yea	Fugitive PM10 (tons/year)	Exhaust PM10 (tons/year)	Fugitive PM2.5 (tons/year)	Exhaust PM2.5 (tons/year)
Baseline	29.3161	27.0552	79.8381	0.2642	27.6427	0.618	0.6094	8.0106

CalEEMod VMT Calculator (UNMITIGATED SCENARIO)

This calcultor was created based on the default trip inputs for the unmitigated CalEEMod run. The calculator calculateds the annual VMT from the proposed project using the same methodology from CalEEMod, described in Appendix A, for the UNMITIGATED SCENARIO. This calculator can be used to adjust land use trip rates for the MITIGATED PROJECT scenario which is based on the traffic study conducted for the project

Trip Type

CalEEMod defaults based on land uses inputted

Land Use	Size Metric	Amount	Weekday Trip Rate (size/day)	Sat Trip Rate (size/day)	Sun Trip Rate (size/day)	Miles			Trip %			Trip Purpose		
						H-w or C-W	H-S or C-C	H-O or C-O	H-w or C-W	H-S or C-C	H-O or C-O	Primary	Diverted	Pass-by
city park	acre	57.8	1.89	22.75	16.74	10.00	5.00	6.50	33.0%	48.0%	19.0%	66.0%	28.0%	6.0%
elementary school	student	500	1.29	0	0	10.00	5.00	6.50	65.0%	30.0%	5.0%	63.0%	25.0%	12.0%
junior high school	student	2800	1.62	0	0	10.00	5.00	6.50	72.8%	22.2%	5.0%	63.0%	25.0%	12.0%
Single Family Home	dwelling unit	2699	9.52	9.91	8.62	10.00	5.00	6.50	46.5%	12.5%	41.0%	86.0%	11.0%	3.0%

Total Trips

Total Trips = (TripRate weekday x 5 +Trip Sat + Trip Sun)

Average Daily Trips Based on CalEEMod Trip Gen Defaults per land use unit. Total trips Calculated

Land Use	Average Daily Trip Rate			
	weekday	Saturday	Sunday	Total Trips (weekly)
city park	109.24	1,314.95	967.57	**2,828.73**
elementary school	645.00	0.00	0.00	**3,225.00**
junior high school	4,536.00	0.00	0.00	**22,680.00**
Single Family Home	25,694.48	26,747.09	23,265.38	**178,484.87**
	30,984.72	**28,062.04**	**24,232.95**	**207,218.60**

Trip Length Calc

AVG Trip Length = Link % primary x trip length primary+link % divertedx0.25x length trip primary+link % passbyx0.1

Trip length calculated for each trip type based on trip purpose % and length defaults from CalEEMod

Land Use

		trip length			trip length			
city park	link % primary	primary	link % diverted	Constant (0.25)	primary	link % passby	constant	Trip Length
H-W or c-w	66.0%	10.00	28.0%	0.25	10	6.0%	0.1	7.3
h-s or c-c	66.0%	5.00	28.0%	0.25	5	6.0%	0.1	3.7
h-o or c-o	66.0%	6.50	28.0%	0.25	6.5	6.0%	0.1	4.8
elementary school								
H-W or c-w	63.0%	10.00	25.0%	0.25	10.00	12.0%	0.1	6.9
h-s or c-c	63.0%	5	25.0%	0.25	5.00	12.0%	0.1	3.5
h-o or c-o	63.0%	6.5	25.0%	0.25	6.50	12.0%	0.1	4.5
Junior high school								
H-W or c-w	63.0%	10	25.0%	0.25	10.00	12.0%	0.1	6.9
h-s or c-c	63.0%	5	25.0%	0.25	5.00	12.0%	0.1	3.5
h-o or c-o	63.0%	6.5	25.0%	0.25	6.50	12.0%	0.1	4.5
Single Family Home								
H-W or c-w	86.0%	10	11.0%	0.25	10	3.0%	0.1	8.9
h-s or c-c	86.0%	5	11.0%	0.25	5	3.0%	0.1	4.4
h-o or c-o	86.0%	6.5	11.0%	0.25	6.5	3.0%	0.1	5.8

VMT Calc Per Land Use Type (Weekly)

VMT = #Trips x AVG Trip Length per land use and trip type

Trip number for each trip type are derived by multiplying the total trips for each land use calculated above in the Total Trip Calcs by the trip % shown in the Trip Type table for each land use

city park	# trips	trip length	Weekly VMT	Annual VMT
H-W or c-w	933	7.3	6,820	
h-s or c-c	1,358	3.7	4,964	
h-o or c-o	537	4.8	2,553	
Total VMT			14,338	745,553.62
elementary school				
H-W or c-w	2,096	6.9	14,542	
h-s or c-c	968	3.5	3,362	
h-o or c-o	161	4.5	728	
Total VMT			18,631	968,813
junior high school				
H-W or c-w	16,511	6.9	114,537	
h-s or c-c	5,035	3.5	17,494	
h-o or c-o	1,134	4.5	5,118	
Total VMT			137,149	7,131,752
Single Family Home				
H-W or c-w	82,995	8.9	736,834	
h-s or c-c	22,311	4.4	99,070	
h-o or c-o	73,179	5.8	422,370	
Total VMT			1,258,274	65,430,233

Annual VMT Calc

the calculated weekly VMT for each land use is summed. This value is multiplied by 50 weeks/year to equal the annual VMT number calculated by CalEEMod

Summed Weekly VMT from Each Land Use	1,428,391.39	
Weeks per Year CalEEMod Uses for Annual VMT	52.00	
Calculated Annual VMT	**74,276,352**	67,144,600
		203,497

CalEEMod VMT Calculator (MITIGATED SCENARIO)

This calcultor was created based on the default trip inputs for the unmitigated CalEEMod run. The calculator calculateds the annual VMT from the proposed project using the same methodology from CalEEMod, described in Appendix A, for the MITIGATED SCENARIO. This calculator can be used to adjust land use trip rates for the MITIGATED PROJECT scenario which is based on the traffic study conducted for the project

Daily VMT Provided by Traffic Study	**152,688**
Annual VMT	**55,731,120**
Daily Trips Provided by Traffic Study	**24,270**
Total Trips (weekly)	**169,890**

Trip Type

CalEEMod defaults based on land uses inputted

Land Use	Size Metric	Amount	Weekday Trip Rate (size/day)	Sat Trip Rate (size/day)	Sun Trip Rate (size/day)	Miles			Trip %			Trip Purpose		
						H-w or C-W	H-S or C-C	H-O or C-O	H-w or C-W	H-S or C-C	H-O or C-O	Primary	Diverted	Pass-by
city park	acre	57.8	1.5571	17.3010	16.0554	5.00	4.99	6.55	33.0%	48.0%	19.0%	66.0%	28.0%	6.0%
elementary school	student	500	1.0000	0.0000	0.0000	5.00	5.00	6.60	65.0%	30.0%	5.0%	63.0%	25.0%	12.0%
junior high school	student	2800	1.0714	0.0000	0.0000	10.00	5.00	6.50	72.8%	22.2%	5.0%	63.0%	25.0%	12.0%
Single Family Home	dwelling unit	2699	7.4102	9.9100	8.6200	8.50	4.90	6.50	46.5%	12.5%	41.0%	86.0%	11.0%	3.0%

Total Trips

Total Trips = (TripRate weekday x 5 +Trip Sat + Trip Sun)

Average Daily Trips Based on CalEEMod Trip Gen Defaults per land use unit. Total trips Calculated

Land Use	Average Daily Trip Rate			
	weekday	Saturday	Sunday	Total Trips (weekly)
city park	90.00	1,000.00	928.00	**2,378.00**
elementary school	500.00	0.00	0.00	**2,500.00**
junior high school	3,000.00	0.00	0.00	**15,000.00**
Single Family Home	20,000.00	26,747.09	23,265.38	**150,012.47**
	23,590.00	**27,747.09**	**24,193.38**	**169,890.47**

Trip Length Calc

AVG Trip Length = Link % primary x trip length primary+link % divertedx0.25x length trip primary+link % passbyx0.1

Trip length calculated for each trip type based on trip purpose % and length defaults from CalEEMod

Land Use

city park	link % primary	trip length primary	link % diverted	Constant (0.25)	trip length primary	link % passby	constant	Trip Length
H-W or c-w	66.0%	5.00	28.0%	0.25	5	6.0%	0.1	3.7
h-s or c-c	66.0%	4.99	28.0%	0.25	4.99	6.0%	0.1	3.6
h-o or c-o	66.0%	6.55	28.0%	0.25	6.55	6.0%	0.1	4.8
elementary school								
H-W or c-w	63.0%	5.00	25.0%	0.25	5.00	12.0%	0.1	3.5
h-s or c-c	63.0%	5	25.0%	0.25	5.00	12.0%	0.1	3.5
h-o or c-o	63.0%	6.6	25.0%	0.25	6.60	12.0%	0.1	4.6
Junior high school								
H-W or c-w	63.0%	10	25.0%	0.25	10.00	12.0%	0.1	6.9
h-s or c-c	63.0%	5	25.0%	0.25	5.00	12.0%	0.1	3.5
h-o or c-o	63.0%	6.5	25.0%	0.25	6.50	12.0%	0.1	4.5
Single Family Home								
H-W or c-w	86.0%	8.5	11.0%	0.25	8.5	3.0%	0.1	7.5
h-s or c-c	86.0%	4.9	11.0%	0.25	4.9	3.0%	0.1	4.4
h-o or c-o	86.0%	6.5	11.0%	0.25	6.5	3.0%	0.1	5.8

VMT Calc Per Land Use Type (Weekly)

VMT = #Trips x AVG Trip Length per land use and trip type

Trip number for each trip type are derived by multiplying the total trips for each land use calculated above in the Total Trip Calcs by the trip % shown in the Trip Type table for each land use

city park	# trips	trip length	Weekly VMT	Annual VMT
H-W or c-w	785	3.7	2,869	
h-s or c-c	1,141	3.6	4,165	
h-o or c-o	452	4.8	2,163	
Total VMT			9,197	478,237.23
elementary school				
H-W or c-w	1,625	3.5	5,646	
h-s or c-c	750	3.5	2,606	
h-o or c-o	125	4.6	573	
Total VMT			8,825	458,887
junior high school				
H-W or c-w	10,920	6.9	75,752	
h-s or c-c	3,330	3.5	11,570	
h-o or c-o	750	4.5	3,385	
Total VMT			90,707	4,716,767
Single Family Home				
H-W or c-w	69,756	7.5	526,430	
h-s or c-c	18,752	4.4	81,602	
h-o or c-o	61,505	5.8	354,992	
Total VMT			963,024	50,077,238

Annual VMT Calc

the calculated weekly VMT for each land use is summed. This value is multiplied by 50 weeks/year to equal the annual VMT number calculated by CalEEMod

Summed Weekly VMT from Each Land Use	1,071,752.49	
Weeks per Year CalEEMod Uses for Annual VMT	52.00	
Calculated Annual VMT	**55,731,129**	9
		152,688

Traffic Study & Title 24 Adjusted Project Emissions					
Category	ROG (tons/year)	NOX (tons/year)	PM10 (tons/year)	ROG Reduction (tons/year)	NOx Reduction (tons/year)
Area	24.4913	0.3204	0.1545		
Energy	0.3754	3.2236	0.2596	0.12	1.03
Mobile	3.4281	17.8381	20.8327	0.90	4.6396
Total	**28.29**	**21.38**	**21.25**	**1.02**	**5.67**
Reduction still needed				**0.61**	**3.23**

Traffic Study, Title 24, Mitigation Measures Adjusted Project Emissions						
Category	ROG (tons/year)	NOX (tons/year)	PM10 (tons/year)	ROG Reduction (tons/year)	NOx Reduction (tons/year)	
Area	24.4913	0.3204	0.1545			
Energy	0.3754	3.2236	0.2593			
Mobile	3.3626	17.5174	19.7894			
Total	**28.23**	**21.06**	**20.20**	**1.09**	**5.99**	8.06
Reduction still needed				**0.43**	**1.87**	

Panhandle Baseline Operational - No Commercial

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	500.00	Student	10.00	41,801.69	0
Junior High School	2,800.00	Student	7.56	329,172.71	0
City Park	57.80	Acre	57.80	2,517,768.00	0
Single Family Housing	2,699.00	Dwelling Unit	407.40	4,858,200.00	7206

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2035
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - No commercial, addition of 39 residential units

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Panhandle Baseline Operational - No Commercial - Sacramento County, Summer

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	0.96	10.00
tblLandUse	LotAcreage	876.30	407.40
tblProjectCharacteristics	OperationalYear	2018	2035

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	12.3610	0.0000	0.0000	11.4797	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**12.3610**	**0.0000**	**0.0000**	**11.4797**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	12.3610	0.0000	0.0000	11.4797	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**12.3610**	**0.0000**	**0.0000**	**11.4797**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	136.2987	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360	0.0000	401.6775	401.6775	0.3836	0.0000	411.2667
Energy	2.7190	23.3269	10.5599	0.1483		1.8786	1.8786		1.8786	1.8786		29,661.8883	29,661.8883	0.5685	0.5438	29,838.1541
Mobile	34.0903	134.7914	347.0120	1.5494	174.4451	0.7361	175.1811	46.5742	0.6839	47.2581		157,893.7110	157,893.7110	5.4298		158,029.4558
Total	**173.1081**	**160.6813**	**579.8010**	**1.7095**	**174.4451**	**3.8507**	**178.2958**	**46.5742**	**3.7986**	**50.3727**	**0.0000**	**187,957.2768**	**187,957.2768**	**6.3819**	**0.5438**	**188,278.8765**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	136.2987	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360	0.0000	401.6775	401.6775	0.3836	0.0000	411.2667
Energy	2.7190	23.3269	10.5599	0.1483		1.8786	1.8786		1.8786	1.8786		29,661.8883	29,661.8883	0.5685	0.5438	29,838.1541
Mobile	34.0903	134.7914	347.0120	1.5494	174.4451	0.7361	175.1811	46.5742	0.6839	47.2581		157,893.7110	157,893.7110	5.4298		158,029.4558
Total	**173.1081**	**160.6813**	**579.8010**	**1.7095**	**174.4451**	**3.8507**	**178.2958**	**46.5742**	**3.7986**	**50.3727**	**0.0000**	**187,957.2768**	**187,957.2768**	**6.3819**	**0.5438**	**188,278.8765**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	8/28/2017	8/27/2017	5	550	
2	Building Construction	Building Construction	8/28/2017	8/27/2017	5	7750	
3	Demolition	Demolition	8/28/2017	8/27/2017	5	500	
4	Grading	Grading	8/28/2017	8/27/2017	5	775	
5	Paving	Paving	8/28/2017	8/27/2017	5	550	
6	Site Preparation	Site Preparation	8/28/2017	8/27/2017	5	300	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1937.5

Acres of Paving: 0

Residential Indoor: 9,837,855; Residential Outdoor: 3,279,285; Non-Residential Indoor: 556,462; Non-Residential Outdoor: 185,487; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Panhandle Baseline Operational - No Commercial - Sacramento County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	437.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	2,185.00	762.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Building Construction - 2017

Unmitigated Construction On-Site

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

3.3 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

3.3 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Demolition - 2017

Unmitigated Construction On-Site

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

3.4 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

3.4 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	34.0903	134.7914	347.0120	1.5494	174.4451	0.7361	175.1811	46.5742	0.6839	47.2581		157,893.7110	157,893.7110	5.4298		158,029.4558
Unmitigated	34.0903	134.7914	347.0120	1.5494	174.4451	0.7361	175.1811	46.5742	0.6839	47.2581		157,893.7110	157,893.7110	5.4298		158,029.4558

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	109.24	1,314.95	967.57	745,554	745,554
Elementary School	645.00	0.00	0.00	968,813	968,813
Junior High School	4,536.00	0.00	0.00	7,131,752	7,131,752
Single Family Housing	25,694.48	26,747.09	23265.38	65,430,233	65,430,233
Total	30,984.72	28,062.04	24,232.95	74,276,352	74,276,352

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	10.00	5.00	6.50	33.00	48.00	19.00	66	28	6
Elementary School	10.00	5.00	6.50	65.00	30.00	5.00	63	25	12
Junior High School	10.00	5.00	6.50	72.80	22.20	5.00	63	25	12
Single Family Housing	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
Junior High School	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
City Park	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
Single Family Housing	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.7190	23.3269	10.5599	0.1483		1.8786	1.8786		1.8786	1.8786		29,661.8883	29,661.8883	0.5685	0.5438	29,838.1541
NaturalGas Unmitigated	2.7190	23.3269	10.5599	0.1483		1.8786	1.8786		1.8786	1.8786		29,661.8883	29,661.8883	0.5685	0.5438	29,838.1541

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	1756.82	0.0190	0.1722	0.1447	1.0300e-003		0.0131	0.0131		0.0131	0.0131		206.6843	206.6843	3.9600e-003	3.7900e-003	207.9125
Junior High School	13834.3	0.1492	1.3563	1.1393	8.1400e-003		0.1031	0.1031		0.1031	0.1031		1,627.5614	1,627.5614	0.0312	0.0298	1,637.2332
Single Family Housing	236535	2.5509	21.7983	9.2759	0.1391		1.7624	1.7624		1.7624	1.7624		27,827.6426	27,827.6426	0.5334	0.5102	27,993.0084
Total		**2.7190**	**23.3269**	**10.5599**	**0.1483**		**1.8786**	**1.8786**		**1.8786**	**1.8786**		**29,661.8883**	**29,661.8883**	**0.5685**	**0.5438**	**29,838.1541**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	1.75682	0.0190	0.1722	0.1447	1.0300e-003		0.0131	0.0131		0.0131	0.0131		206.6843	206.6843	3.9600e-003	3.7900e-003	207.9125
Junior High School	13.8343	0.1492	1.3563	1.1393	8.1400e-003		0.1031	0.1031		0.1031	0.1031		1,627.5614	1,627.5614	0.0312	0.0298	1,637.2332
Single Family Housing	236.535	2.5509	21.7983	9.2759	0.1391		1.7624	1.7624		1.7624	1.7624		27,827.6426	27,827.6426	0.5334	0.5102	27,993.0084
Total		**2.7190**	**23.3269**	**10.5599**	**0.1483**		**1.8786**	**1.8786**		**1.8786**	**1.8786**		**29,661.8883**	**29,661.8883**	**0.5685**	**0.5438**	**29,838.1541**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	136.2987	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360	0.0000	401.6775	401.6775	0.3836	0.0000	411.2667
Unmitigated	136.2987	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360	0.0000	401.6775	401.6775	0.3836	0.0000	411.2667

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	17.5991					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	112.0341					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.6656	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360		401.6775	401.6775	0.3836		411.2667
Total	**136.2987**	**2.5630**	**222.2291**	**0.0118**		**1.2360**	**1.2360**		**1.2360**	**1.2360**	**0.0000**	**401.6775**	**401.6775**	**0.3836**	**0.0000**	**411.2667**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	17.5991					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	112.0341					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.6656	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360		401.6775	401.6775	0.3836		411.2667
Total	**136.2987**	**2.5630**	**222.2291**	**0.0118**		**1.2360**	**1.2360**		**1.2360**	**1.2360**	**0.0000**	**401.6775**	**401.6775**	**0.3836**	**0.0000**	**411.2667**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Panhandle Baseline Operational - No Commercial

Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	500.00	Student	10.00	41,801.69	0
Junior High School	2,800.00	Student	7.56	329,172.71	0
City Park	57.80	Acre	57.80	2,517,768.00	0
Single Family Housing	2,699.00	Dwelling Unit	407.40	4,858,200.00	7206

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2035
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - No commercial, addition of 39 residential units

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Panhandle Baseline Operational - No Commercial - Sacramento County, Winter

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	0.96	10.00
tblLandUse	LotAcreage	876.30	407.40
tblProjectCharacteristics	OperationalYear	2018	2035

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	12.3826	0.0000	0.0000	11.5004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**12.3826**	**0.0000**	**0.0000**	**11.5004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	12.3826	0.0000	0.0000	11.5004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**12.3826**	**0.0000**	**0.0000**	**11.5004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	136.2987	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360	0.0000	401.6775	401.6775	0.3836	0.0000	411.2667
Energy	2.7190	23.3269	10.5599	0.1483		1.8786	1.8786		1.8786	1.8786		29,661.8883	29,661.8883	0.5685	0.5438	29,838.1541
Mobile	24.6952	140.1055	314.3061	1.4058	174.4451	0.7395	175.1845	46.5742	0.6872	47.2614		143,491.1734	143,491.1734	5.5129		143,628.9968
Total	**163.7130**	**165.9954**	**547.0951**	**1.5659**	**174.4451**	**3.8541**	**178.2992**	**46.5742**	**3.8018**	**50.3760**	**0.0000**	**173,554.7392**	**173,554.7392**	**6.4650**	**0.5438**	**173,878.4176**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	136.2987	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360	0.0000	401.6775	401.6775	0.3836	0.0000	411.2667
Energy	2.7190	23.3269	10.5599	0.1483		1.8786	1.8786		1.8786	1.8786		29,661.8883	29,661.8883	0.5685	0.5438	29,838.1541
Mobile	24.6952	140.1055	314.3061	1.4058	174.4451	0.7395	175.1845	46.5742	0.6872	47.2614		143,491.1734	143,491.1734	5.5129		143,628.9968
Total	**163.7130**	**165.9954**	**547.0951**	**1.5659**	**174.4451**	**3.8541**	**178.2992**	**46.5742**	**3.8018**	**50.3760**	**0.0000**	**173,554.7392**	**173,554.7392**	**6.4650**	**0.5438**	**173,878.4176**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	8/28/2017	8/27/2017	5	550	
2	Building Construction	Building Construction	8/28/2017	8/27/2017	5	7750	
3	Demolition	Demolition	8/28/2017	8/27/2017	5	500	
4	Grading	Grading	8/28/2017	8/27/2017	5	775	
5	Paving	Paving	8/28/2017	8/27/2017	5	550	
6	Site Preparation	Site Preparation	8/28/2017	8/27/2017	5	300	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1937.5

Acres of Paving: 0

Residential Indoor: 9,837,855; Residential Outdoor: 3,279,285; Non-Residential Indoor: 556,462; Non-Residential Outdoor: 185,487; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Panhandle Baseline Operational - No Commercial - Sacramento County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Panhandle Baseline Operational - No Commercial - Sacramento County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	437.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	2,185.00	762.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Building Construction - 2017

Unmitigated Construction On-Site

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

3.3 Building Construction - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

3.3 Building Construction - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Demolition - 2017

Unmitigated Construction On-Site

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

3.4 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

3.4 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Grading - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Site Preparation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Site Preparation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	24.6952	140.1055	314.3061	1.4058	174.4451	0.7395	175.1845	46.5742	0.6872	47.2614		143,491.1734	143,491.1734	5.5129		143,628.9968
Unmitigated	24.6952	140.1055	314.3061	1.4058	174.4451	0.7395	175.1845	46.5742	0.6872	47.2614		143,491.1734	143,491.1734	5.5129		143,628.9968

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	109.24	1,314.95	967.57	745,554	745,554
Elementary School	645.00	0.00	0.00	968,813	968,813
Junior High School	4,536.00	0.00	0.00	7,131,752	7,131,752
Single Family Housing	25,694.48	26,747.09	23265.38	65,430,233	65,430,233
Total	30,984.72	28,062.04	24,232.95	74,276,352	74,276,352

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	10.00	5.00	6.50	33.00	48.00	19.00	66	28	6
Elementary School	10.00	5.00	6.50	65.00	30.00	5.00	63	25	12
Junior High School	10.00	5.00	6.50	72.80	22.20	5.00	63	25	12
Single Family Housing	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
Junior High School	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
City Park	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
Single Family Housing	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.7190	23.3269	10.5599	0.1483		1.8786	1.8786		1.8786	1.8786		29,661.8883	29,661.8883	0.5685	0.5438	29,838.1541
NaturalGas Unmitigated	2.7190	23.3269	10.5599	0.1483		1.8786	1.8786		1.8786	1.8786		29,661.8883	29,661.8883	0.5685	0.5438	29,838.1541

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	1756.82	0.0190	0.1722	0.1447	1.0300e-003		0.0131	0.0131		0.0131	0.0131		206.6843	206.6843	3.9600e-003	3.7900e-003	207.9125
Junior High School	13834.3	0.1492	1.3563	1.1393	8.1400e-003		0.1031	0.1031		0.1031	0.1031		1,627.5614	1,627.5614	0.0312	0.0298	1,637.2332
Single Family Housing	236535	2.5509	21.7983	9.2759	0.1391		1.7624	1.7624		1.7624	1.7624		27,827.6426	27,827.6426	0.5334	0.5102	27,993.0084
Total		**2.7190**	**23.3269**	**10.5599**	**0.1483**		**1.8786**	**1.8786**		**1.8786**	**1.8786**		**29,661.8883**	**29,661.8883**	**0.5685**	**0.5438**	**29,838.1541**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	1.75682	0.0190	0.1722	0.1447	1.0300e-003		0.0131	0.0131		0.0131	0.0131		206.6843	206.6843	3.9600e-003	3.7900e-003	207.9125
Junior High School	13.8343	0.1492	1.3563	1.1393	8.1400e-003		0.1031	0.1031		0.1031	0.1031		1,627.5614	1,627.5614	0.0312	0.0298	1,637.2332
Single Family Housing	236.535	2.5509	21.7983	9.2759	0.1391		1.7624	1.7624		1.7624	1.7624		27,827.6426	27,827.6426	0.5334	0.5102	27,993.0084
Total		**2.7190**	**23.3269**	**10.5599**	**0.1483**		**1.8786**	**1.8786**		**1.8786**	**1.8786**		**29,661.8883**	**29,661.8883**	**0.5685**	**0.5438**	**29,838.1541**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	136.2987	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360	0.0000	401.6775	401.6775	0.3836	0.0000	411.2667
Unmitigated	136.2987	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360	0.0000	401.6775	401.6775	0.3836	0.0000	411.2667

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	17.5991					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	112.0341					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.6656	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360		401.6775	401.6775	0.3836		411.2667
Total	**136.2987**	**2.5630**	**222.2291**	**0.0118**		**1.2360**	**1.2360**		**1.2360**	**1.2360**	**0.0000**	**401.6775**	**401.6775**	**0.3836**	**0.0000**	**411.2667**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	17.5991					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	112.0341					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.6656	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360		401.6775	401.6775	0.3836		411.2667
Total	**136.2987**	**2.5630**	**222.2291**	**0.0118**		**1.2360**	**1.2360**		**1.2360**	**1.2360**	**0.0000**	**401.6775**	**401.6775**	**0.3836**	**0.0000**	**411.2667**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Panhandle Baseline Operational - No Commercial

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	500.00	Student	10.00	41,801.69	0
Junior High School	2,800.00	Student	7.56	329,172.71	0
City Park	57.80	Acre	57.80	2,517,768.00	0
Single Family Housing	2,699.00	Dwelling Unit	407.40	4,858,200.00	7206

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2035
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - No commercial, addition of 39 residential units

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Panhandle Baseline Operational - No Commercial - Sacramento County, Annual

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	0.96	10.00
tblLandUse	LotAcreage	876.30	407.40
tblProjectCharacteristics	OperationalYear	2018	2035

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	24.4913	0.3204	27.7786	1.4700e-003		0.1545	0.1545		0.1545	0.1545	0.0000	45.5495	45.5495	0.0435	0.0000	46.6369
Energy	0.4962	4.2572	1.9272	0.0271		0.3428	0.3428		0.3428	0.3428	0.0000	12,203.0494	12,203.0494	0.4524	0.1642	12,263.2756
Mobile	4.3286	22.4777	50.1323	0.2357	27.6427	0.1206	27.7633	7.4012	0.1121	7.5133	0.0000	21,820.5966	21,820.5966	0.7982	0.0000	21,840.5526
Waste						0.0000	0.0000		0.0000	0.0000	649.8512	0.0000	649.8512	38.4051	0.0000	1,609.9789
Water						0.0000	0.0000		0.0000	0.0000	65.0467	432.9974	498.0441	0.2452	0.1459	547.6382
Total	**29.3161**	**27.0552**	**79.8381**	**0.2642**	**27.6427**	**0.6180**	**28.2606**	**7.4012**	**0.6094**	**8.0106**	**714.8979**	**34,502.1929**	**35,217.0908**	**39.9444**	**0.3100**	**36,308.0821**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	24.4913	0.3204	27.7786	1.4700e-003		0.1545	0.1545		0.1545	0.1545	0.0000	45.5495	45.5495	0.0435	0.0000	46.6369
Energy	0.4962	4.2572	1.9272	0.0271		0.3428	0.3428		0.3428	0.3428	0.0000	12,203.0494	12,203.0494	0.4524	0.1642	12,263.2756
Mobile	4.3286	22.4777	50.1323	0.2357	27.6427	0.1206	27.7633	7.4012	0.1121	7.5133	0.0000	21,820.5966	21,820.5966	0.7982	0.0000	21,840.5526
Waste						0.0000	0.0000		0.0000	0.0000	649.8512	0.0000	649.8512	38.4051	0.0000	1,609.9789
Water						0.0000	0.0000		0.0000	0.0000	65.0467	432.9974	498.0441	0.2452	0.1459	547.6382
Total	**29.3161**	**27.0552**	**79.8381**	**0.2642**	**27.6427**	**0.6180**	**28.2606**	**7.4012**	**0.6094**	**8.0106**	**714.8979**	**34,502.1929**	**35,217.0908**	**39.9444**	**0.3100**	**36,308.0821**

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

3.0 Construction Detail

Construction Phase

Panhandle Baseline Operational - No Commercial - Sacramento County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	8/28/2017	8/27/2017	5	550	
2	Building Construction	Building Construction	8/28/2017	8/27/2017	5	7750	
3	Demolition	Demolition	8/28/2017	8/27/2017	5	500	
4	Grading	Grading	8/28/2017	8/27/2017	5	775	
5	Paving	Paving	8/28/2017	8/27/2017	5	550	
6	Site Preparation	Site Preparation	8/28/2017	8/27/2017	5	300	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1937.5

Acres of Paving: 0

Residential Indoor: 9,837,855; Residential Outdoor: 3,279,285; Non-Residential Indoor: 556,462; Non-Residential Outdoor: 185,487; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Panhandle Baseline Operational - No Commercial - Sacramento County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	437.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	2,185.00	762.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2017

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2017

Mitigated Construction Off-Site

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

3.3 Building Construction - 2017

Unmitigated Construction On-Site

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

3.3 Building Construction - 2017

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.3 Building Construction - 2017

Mitigated Construction Off-Site

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

3.4 Demolition - 2017

Unmitigated Construction On-Site

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

3.4 Demolition - 2017

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.4 Demolition - 2017

Mitigated Construction Off-Site

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

3.5 Grading - 2017

Unmitigated Construction On-Site

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

3.5 Grading - 2017

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.5 Grading - 2017

Mitigated Construction Off-Site

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

3.6 Paving - 2017

Unmitigated Construction On-Site

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

3.6 Paving - 2017

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.6 Paving - 2017

Mitigated Construction Off-Site

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

3.7 Site Preparation - 2017

Unmitigated Construction On-Site

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

3.7 Site Preparation - 2017

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.7 Site Preparation - 2017

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.3286	22.4777	50.1323	0.2357	27.6427	0.1206	27.7633	7.4012	0.1121	7.5133	0.0000	21,820.5966	21,820.5966	0.7982	0.0000	21,840.5526
Unmitigated	4.3286	22.4777	50.1323	0.2357	27.6427	0.1206	27.7633	7.4012	0.1121	7.5133	0.0000	21,820.5966	21,820.5966	0.7982	0.0000	21,840.5526

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	109.24	1,314.95	967.57	745,554	745,554
Elementary School	645.00	0.00	0.00	968,813	968,813
Junior High School	4,536.00	0.00	0.00	7,131,752	7,131,752
Single Family Housing	25,694.48	26,747.09	23265.38	65,430,233	65,430,233
Total	30,984.72	28,062.04	24,232.95	74,276,352	74,276,352

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	10.00	5.00	6.50	33.00	48.00	19.00	66	28	6
Elementary School	10.00	5.00	6.50	65.00	30.00	5.00	63	25	12
Junior High School	10.00	5.00	6.50	72.80	22.20	5.00	63	25	12
Single Family Housing	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
Junior High School	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
City Park	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
Single Family Housing	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	7,292.1911	7,292.1911	0.3582	0.0741	7,323.2346
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	7,292.1911	7,292.1911	0.3582	0.0741	7,323.2346
NaturalGas Mitigated	0.4962	4.2572	1.9272	0.0271		0.3428	0.3428		0.3428	0.3428	0.0000	4,910.8583	4,910.8583	0.0941	0.0900	4,940.0410
NaturalGas Unmitigated	0.4962	4.2572	1.9272	0.0271		0.3428	0.3428		0.3428	0.3428	0.0000	4,910.8583	4,910.8583	0.0941	0.0900	4,940.0410

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	641238	3.4600e-003	0.0314	0.0264	1.9000e-004		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	34.2189	34.2189	6.6000e-004	6.3000e-004	34.4222
Junior High School	5.04951e+006	0.0272	0.2475	0.2079	1.4900e-003		0.0188	0.0188		0.0188	0.0188	0.0000	269.4611	269.4611	5.1600e-003	4.9400e-003	271.0623
Single Family Housing	8.63353e+007	0.4655	3.9782	1.6929	0.0254		0.3216	0.3216		0.3216	0.3216	0.0000	4,607.1783	4,607.1783	0.0883	0.0845	4,634.5565
Total		**0.4962**	**4.2571**	**1.9272**	**0.0271**		**0.3428**	**0.3428**		**0.3428**	**0.3428**	**0.0000**	**4,910.8583**	**4,910.8583**	**0.0941**	**0.0900**	**4,940.0410**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	641238	3.4600e-003	0.0314	0.0264	1.9000e-004		2.3900e-003	2.3900e-003		2.3900e-003	2.3900e-003	0.0000	34.2189	34.2189	6.6000e-004	6.3000e-004	34.4222
Junior High School	5.04951e+006	0.0272	0.2475	0.2079	1.4900e-003		0.0188	0.0188		0.0188	0.0188	0.0000	269.4611	269.4611	5.1600e-003	4.9400e-003	271.0623
Single Family Housing	8.63353e+007	0.4655	3.9782	1.6929	0.0254		0.3216	0.3216		0.3216	0.3216	0.0000	4,607.1783	4,607.1783	0.0883	0.0845	4,634.5565
Total		**0.4962**	**4.2571**	**1.9272**	**0.0271**		**0.3428**	**0.3428**		**0.3428**	**0.3428**	**0.0000**	**4,910.8583**	**4,910.8583**	**0.0941**	**0.0900**	**4,940.0410**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	313931	84.0581	4.1300e-003	8.5000e-004	84.4160
Junior High School	2.47209e+006	661.9263	0.0325	6.7300e-003	664.7442
Single Family Housing	2.4448e+007	6,546.2067	0.3216	0.0665	6,574.0744
Total		**7,292.1911**	**0.3582**	**0.0741**	**7,323.2346**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	313931	84.0581	4.1300e-003	8.5000e-004	84.4160
Junior High School	2.47209e+006	661.9263	0.0325	6.7300e-003	664.7442
Single Family Housing	2.4448e+007	6,546.2067	0.3216	0.0665	6,574.0744
Total		**7,292.1911**	**0.3582**	**0.0741**	**7,323.2346**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	24.4913	0.3204	27.7786	1.4700e-003		0.1545	0.1545		0.1545	0.1545	0.0000	45.5495	45.5495	0.0435	0.0000	46.6369
Unmitigated	24.4913	0.3204	27.7786	1.4700e-003		0.1545	0.1545		0.1545	0.1545	0.0000	45.5495	45.5495	0.0435	0.0000	46.6369

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.2118					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	20.4462					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.8332	0.3204	27.7786	1.4700e-003		0.1545	0.1545		0.1545	0.1545	0.0000	45.5495	45.5495	0.0435	0.0000	46.6369
Total	**24.4912**	**0.3204**	**27.7786**	**1.4700e-003**		**0.1545**	**0.1545**		**0.1545**	**0.1545**	**0.0000**	**45.5495**	**45.5495**	**0.0435**	**0.0000**	**46.6369**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.2118					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	20.4462					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.8332	0.3204	27.7786	1.4700e-003		0.1545	0.1545		0.1545	0.1545	0.0000	45.5495	45.5495	0.0435	0.0000	46.6369
Total	**24.4912**	**0.3204**	**27.7786**	**1.4700e-003**		**0.1545**	**0.1545**		**0.1545**	**0.1545**	**0.0000**	**45.5495**	**45.5495**	**0.0435**	**0.0000**	**46.6369**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	498.0441	0.2452	0.1459	547.6382
Unmitigated	498.0441	0.2452	0.1459	547.6382

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 68.8676	64.5400	3.1700e-003	6.6000e-004	64.8148
Elementary School	1.21212 / 3.11688	4.9670	1.7000e-003	9.8000e-004	5.3011
Junior High School	6.78787 / 17.4545	27.8152	9.5100e-003	5.4800e-003	29.6864
Single Family Housing	175.851 / 110.862	400.7219	0.2308	0.1387	447.8359
Total		**498.0441**	**0.2452**	**0.1459**	**547.6382**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 68.8676	64.5400	3.1700e-003	6.6000e-004	64.8148
Elementary School	1.21212 / 3.11688	4.9670	1.7000e-003	9.8000e-004	5.3011
Junior High School	6.78787 / 17.4545	27.8152	9.5100e-003	5.4800e-003	29.6864
Single Family Housing	175.851 / 110.862	400.7219	0.2308	0.1387	447.8359
Total		**498.0441**	**0.2452**	**0.1459**	**547.6382**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	649.8512	38.4051	0.0000	1,609.9789
Unmitigated	649.8512	38.4051	0.0000	1,609.9789

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	4.97	1.0089	0.0596	0.0000	2.4994
Elementary School	91.25	18.5229	1.0947	0.0000	45.8898
Junior High School	511	103.7284	6.1302	0.0000	256.9827
Single Family Housing	2594.16	526.5910	31.1206	0.0000	1,304.6070
Total		**649.8512**	**38.4051**	**0.0000**	**1,609.9789**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	4.97	1.0089	0.0596	0.0000	2.4994
Elementary School	91.25	18.5229	1.0947	0.0000	45.8898
Junior High School	511	103.7284	6.1302	0.0000	256.9827
Single Family Housing	2594.16	526.5910	31.1206	0.0000	1,304.6070
Total		**649.8512**	**38.4051**	**0.0000**	**1,609.9789**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Panhandle Operational TS Title 24 Adjusted - No Commercial

Sacramento County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	500.00	Student	10.00	41,801.69	0
Junior High School	2,800.00	Student	7.56	329,172.71	0
City Park	57.80	Acre	57.80	2,517,768.00	0
Single Family Housing	2,699.00	Dwelling Unit	407.40	4,858,200.00	7206

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2035
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	557.05	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Panhandle Operational TS Title 24 Adjusted - No Commercial - Sacramento County, Summer

Project Characteristics - Adjusted SMUD intensity factor based on RPS and 2009 SMUD report

Land Use - No commercial, addition of 39 residential units

Vehicle Trips - Trip lengths adjusted to match traffic study VMT. Trip generation rates match total trips from traffic study.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use - 2016 Title 24 adjustment: 5% decrease for non-residential; 28% reduction for residential.

Construction Phase - Operational run only

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	550.00	0.00
tblConstructionPhase	NumDays	7,750.00	0.00
tblConstructionPhase	NumDays	500.00	0.00
tblConstructionPhase	NumDays	775.00	0.00
tblConstructionPhase	NumDays	550.00	0.00
tblConstructionPhase	NumDays	300.00	0.00
tblConstructionPhase	PhaseEndDate	8/10/2057	7/2/2055
tblConstructionPhase	PhaseEndDate	5/23/2053	9/8/2023
tblConstructionPhase	PhaseEndDate	7/26/2019	8/27/2017
tblConstructionPhase	PhaseEndDate	9/8/2023	9/18/2020
tblConstructionPhase	PhaseEndDate	7/2/2055	5/23/2053
tblConstructionPhase	PhaseEndDate	9/18/2020	7/26/2019
tblEnergyUse	T24E	2.15	2.04
tblEnergyUse	T24E	2.15	2.04
tblEnergyUse	T24E	768.93	553.63
tblEnergyUse	T24NG	14.68	13.95
tblEnergyUse	T24NG	14.68	13.95

tblEnergyUse	T24NG	29,300.87	21,096.63
tblLandUse	LotAcreage	0.96	10.00
tblLandUse	LotAcreage	876.30	407.40
tblProjectCharacteristics	CO2IntensityFactor	590.31	557.05
tblProjectCharacteristics	OperationalYear	2018	2035
tblVehicleTrips	CC_TL	5.00	4.99
tblVehicleTrips	CNW_TL	6.50	6.55
tblVehicleTrips	CNW_TL	6.50	6.60
tblVehicleTrips	CW_TL	10.00	5.00
tblVehicleTrips	CW_TL	10.00	5.00
tblVehicleTrips	HS_TL	5.00	4.90
tblVehicleTrips	HW_TL	10.00	8.50
tblVehicleTrips	ST_TR	22.75	17.30
tblVehicleTrips	SU_TR	16.74	16.06
tblVehicleTrips	WD_TR	1.89	1.56
tblVehicleTrips	WD_TR	1.29	1.00
tblVehicleTrips	WD_TR	1.62	1.07
tblVehicleTrips	WD_TR	9.52	7.41

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	2.1943	0.0000	0.0000	2.0433	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2019	0.0000	0.0000	0.0000	0.0000	0.0000	2.3913	0.0000	0.0000	2.2000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2020	0.0000	0.0000	0.0000	0.0000	0.0000	2.1750	0.0000	0.0000	2.0010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.8931	0.0000	0.0000	0.8396	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2053	0.0000	0.0000	0.0000	0.0000	0.0000	0.1164	0.0000	0.0000	0.1164	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2055	0.0000	0.0000	0.0000	0.0000	0.0000	7.4300e-003	0.0000	0.0000	7.4300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.3913**	**0.0000**	**0.0000**	**2.2000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	2.1943	0.0000	0.0000	2.0433	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2019	0.0000	0.0000	0.0000	0.0000	0.0000	2.3913	0.0000	0.0000	2.2000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2020	0.0000	0.0000	0.0000	0.0000	0.0000	2.1750	0.0000	0.0000	2.0010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.8931	0.0000	0.0000	0.8396	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2053	0.0000	0.0000	0.0000	0.0000	0.0000	0.1164	0.0000	0.0000	0.1164	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2055	0.0000	0.0000	0.0000	0.0000	0.0000	7.4300e-003	0.0000	0.0000	7.4300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.3913**	**0.0000**	**0.0000**	**2.2000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	136.2987	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360	0.0000	401.6775	401.6775	0.3836	0.0000	411.2667
Energy	2.0568	17.6633	8.1197	0.1122		1.4210	1.4210		1.4210	1.4210		22,437.3742	22,437.3742	0.4301	0.4114	22,570.7083
Mobile	31.2120	123.0395	303.6141	1.3462	150.6329	0.6441	151.2770	40.2167	0.5984	40.8151		137,201.6327	137,201.6327	4.7848		137,321.2527
Total	**169.5675**	**143.2658**	**533.9629**	**1.4702**	**150.6329**	**3.3012**	**153.9341**	**40.2167**	**3.2555**	**43.4722**	**0.0000**	**160,040.6844**	**160,040.6844**	**5.5984**	**0.4114**	**160,303.2276**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	136.2987	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360	0.0000	401.6775	401.6775	0.3836	0.0000	411.2667
Energy	2.0568	17.6633	8.1197	0.1122		1.4210	1.4210		1.4210	1.4210		22,437.3742	22,437.3742	0.4301	0.4114	22,570.7083
Mobile	31.2120	123.0395	303.6141	1.3462	150.6329	0.6441	151.2770	40.2167	0.5984	40.8151		137,201.6327	137,201.6327	4.7848		137,321.2527
Total	**169.5675**	**143.2658**	**533.9629**	**1.4702**	**150.6329**	**3.3012**	**153.9341**	**40.2167**	**3.2555**	**43.4722**	**0.0000**	**160,040.6844**	**160,040.6844**	**5.5984**	**0.4114**	**160,303.2276**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/28/2017	8/27/2017	5	0	
2	Site Preparation	Site Preparation	7/27/2019	7/26/2019	5	0	
3	Grading	Grading	9/19/2020	9/18/2020	5	0	
4	Building Construction	Building Construction	9/9/2023	9/8/2023	5	0	
5	Paving	Paving	5/24/2053	5/23/2053	5	0	
6	Architectural Coating	Architectural Coating	7/3/2055	7/2/2055	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1937.5

Acres of Paving: 0

Residential Indoor: 9,837,855; Residential Outdoor: 3,279,285; Non-Residential Indoor: 556,462; Non-Residential Outdoor: 185,487; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Panhandle Operational TS Title 24 Adjusted - No Commercial - Sacramento County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Panhandle Operational TS Title 24 Adjusted - No Commercial - Sacramento County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	437.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	2,185.00	762.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

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

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

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

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2053

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2053

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2053

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2055

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2055

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2055

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	31.2120	123.0395	303.6141	1.3462	150.6329	0.6441	151.2770	40.2167	0.5984	40.8151		137,201.6327	137,201.6327	4.7848		137,321.2527
Unmitigated	31.2120	123.0395	303.6141	1.3462	150.6329	0.6441	151.2770	40.2167	0.5984	40.8151		137,201.6327	137,201.6327	4.7848		137,321.2527

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	90.00	1,000.00	928.00	478,238	478,238
Elementary School	500.00	0.00	0.00	458,887	458,887
Junior High School	2,999.92	0.00	0.00	4,716,641	4,716,641
Single Family Housing	20,000.13	26,747.09	23265.38	50,077,454	50,077,454
Total	23,590.05	27,747.09	24,193.38	55,731,220	55,731,220

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	5.00	4.99	6.55	33.00	48.00	19.00	66	28	6
Elementary School	5.00	5.00	6.60	65.00	30.00	5.00	63	25	12
Junior High School	10.00	5.00	6.50	72.80	22.20	5.00	63	25	12
Single Family Housing	8.50	4.90	6.50	46.50	12.50	41.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
Junior High School	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
City Park	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
Single Family Housing	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.0568	17.6633	8.1197	0.1122		1.4210	1.4210		1.4210	1.4210		22,437.3742	22,437.3742	0.4301	0.4114	22,570.7083
NaturalGas Unmitigated	2.0568	17.6633	8.1197	0.1122		1.4210	1.4210		1.4210	1.4210		22,437.3742	22,437.3742	0.4301	0.4114	22,570.7083

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	1673.21	0.0180	0.1640	0.1378	9.8000e-004		0.0125	0.0125		0.0125	0.0125		196.8486	196.8486	3.7700e-003	3.6100e-003	198.0183
Junior High School	13175.9	0.1421	1.2918	1.0851	7.7500e-003		0.0982	0.0982		0.0982	0.0982		1,550.1090	1,550.1090	0.0297	0.0284	1,559.3206
Single Family Housing	175869	1.8966	16.2075	6.8968	0.1035		1.3104	1.3104		1.3104	1.3104		20,690.4166	20,690.4166	0.3966	0.3793	20,813.3694
Total		**2.0568**	**17.6633**	**8.1197**	**0.1122**		**1.4210**	**1.4210**		**1.4210**	**1.4210**		**22,437.3742**	**22,437.3742**	**0.4301**	**0.4114**	**22,570.7083**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	1.67321	0.0180	0.1640	0.1378	9.8000e-004		0.0125	0.0125		0.0125	0.0125		196.8486	196.8486	3.7700e-003	3.6100e-003	198.0183
Junior High School	13.1759	0.1421	1.2918	1.0851	7.7500e-003		0.0982	0.0982		0.0982	0.0982		1,550.1090	1,550.1090	0.0297	0.0284	1,559.3206
Single Family Housing	175.869	1.8966	16.2075	6.8968	0.1035		1.3104	1.3104		1.3104	1.3104		20,690.4166	20,690.4166	0.3966	0.3793	20,813.3694
Total		**2.0568**	**17.6633**	**8.1197**	**0.1122**		**1.4210**	**1.4210**		**1.4210**	**1.4210**		**22,437.3742**	**22,437.3742**	**0.4301**	**0.4114**	**22,570.7083**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	136.2987	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360	0.0000	401.6775	401.6775	0.3836	0.0000	411.2667
Unmitigated	136.2987	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360	0.0000	401.6775	401.6775	0.3836	0.0000	411.2667

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	17.5991					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	112.0341					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.6656	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360		401.6775	401.6775	0.3836		411.2667
Total	**136.2987**	**2.5630**	**222.2291**	**0.0118**		**1.2360**	**1.2360**		**1.2360**	**1.2360**	**0.0000**	**401.6775**	**401.6775**	**0.3836**	**0.0000**	**411.2667**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	17.5991					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	112.0341					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.6656	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360		401.6775	401.6775	0.3836		411.2667
Total	**136.2987**	**2.5630**	**222.2291**	**0.0118**		**1.2360**	**1.2360**		**1.2360**	**1.2360**	**0.0000**	**401.6775**	**401.6775**	**0.3836**	**0.0000**	**411.2667**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Panhandle Operational TS Title 24 Adjusted - No Commercial

Sacramento County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	500.00	Student	10.00	41,801.69	0
Junior High School	2,800.00	Student	7.56	329,172.71	0
City Park	57.80	Acre	57.80	2,517,768.00	0
Single Family Housing	2,699.00	Dwelling Unit	407.40	4,858,200.00	7206

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2035
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	557.05	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Panhandle Operational TS Title 24 Adjusted - No Commercial - Sacramento County, Winter

Project Characteristics - Adjusted SMUD intensity factor based on RPS and 2009 SMUD report

Land Use - No commercial, addition of 39 residential units

Vehicle Trips - Trip lengths adjusted to match traffic study VMT. Trip generation rates match total trips from traffic study.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use - 2016 Title 24 adjustment: 5% decrease for non-residential; 28% reduction for residential.

Construction Phase - Operational run only

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	550.00	0.00
tblConstructionPhase	NumDays	7,750.00	0.00
tblConstructionPhase	NumDays	500.00	0.00
tblConstructionPhase	NumDays	775.00	0.00
tblConstructionPhase	NumDays	550.00	0.00
tblConstructionPhase	NumDays	300.00	0.00
tblConstructionPhase	PhaseEndDate	8/10/2057	7/2/2055
tblConstructionPhase	PhaseEndDate	5/23/2053	9/8/2023
tblConstructionPhase	PhaseEndDate	7/26/2019	8/27/2017
tblConstructionPhase	PhaseEndDate	9/8/2023	9/18/2020
tblConstructionPhase	PhaseEndDate	7/2/2055	5/23/2053
tblConstructionPhase	PhaseEndDate	9/18/2020	7/26/2019
tblEnergyUse	T24E	2.15	2.04
tblEnergyUse	T24E	2.15	2.04
tblEnergyUse	T24E	768.93	553.63
tblEnergyUse	T24NG	14.68	13.95
tblEnergyUse	T24NG	14.68	13.95

tblEnergyUse	T24NG	29,300.87	21,096.63
tblLandUse	LotAcreage	0.96	10.00
tblLandUse	LotAcreage	876.30	407.40
tblProjectCharacteristics	CO2IntensityFactor	590.31	557.05
tblProjectCharacteristics	OperationalYear	2018	2035
tblVehicleTrips	CC_TL	5.00	4.99
tblVehicleTrips	CNW_TL	6.50	6.55
tblVehicleTrips	CNW_TL	6.50	6.60
tblVehicleTrips	CW_TL	10.00	5.00
tblVehicleTrips	CW_TL	10.00	5.00
tblVehicleTrips	HS_TL	5.00	4.90
tblVehicleTrips	HW_TL	10.00	8.50
tblVehicleTrips	ST_TR	22.75	17.30
tblVehicleTrips	SU_TR	16.74	16.06
tblVehicleTrips	WD_TR	1.89	1.56
tblVehicleTrips	WD_TR	1.29	1.00
tblVehicleTrips	WD_TR	1.62	1.07
tblVehicleTrips	WD_TR	9.52	7.41

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	2.1943	0.0000	0.0000	2.0433	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2019	0.0000	0.0000	0.0000	0.0000	0.0000	2.3913	0.0000	0.0000	2.2000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2020	0.0000	0.0000	0.0000	0.0000	0.0000	2.1750	0.0000	0.0000	2.0010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.9006	0.0000	0.0000	0.8468	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2053	0.0000	0.0000	0.0000	0.0000	0.0000	0.1164	0.0000	0.0000	0.1164	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2055	0.0000	0.0000	0.0000	0.0000	0.0000	7.4300e-003	0.0000	0.0000	7.4300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.3913**	**0.0000**	**0.0000**	**2.2000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	2.1943	0.0000	0.0000	2.0433	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2019	0.0000	0.0000	0.0000	0.0000	0.0000	2.3913	0.0000	0.0000	2.2000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2020	0.0000	0.0000	0.0000	0.0000	0.0000	2.1750	0.0000	0.0000	2.0010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.9006	0.0000	0.0000	0.8468	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2053	0.0000	0.0000	0.0000	0.0000	0.0000	0.1164	0.0000	0.0000	0.1164	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2055	0.0000	0.0000	0.0000	0.0000	0.0000	7.4300e-003	0.0000	0.0000	7.4300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**2.3913**	**0.0000**	**0.0000**	**2.2000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	136.2987	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360	0.0000	401.6775	401.6775	0.3836	0.0000	411.2667
Energy	2.0568	17.6633	8.1197	0.1122		1.4210	1.4210		1.4210	1.4210		22,437.3742	22,437.3742	0.4301	0.4114	22,570.7083
Mobile	22.3939	127.5340	277.1150	1.2214	150.6329	0.6473	151.2802	40.2167	0.6015	40.8182		124,684.4080	124,684.4080	4.8741		124,806.2607
Total	**160.7494**	**147.7603**	**507.4638**	**1.3454**	**150.6329**	**3.3044**	**153.9373**	**40.2167**	**3.2586**	**43.4752**	**0.0000**	**147,523.4597**	**147,523.4597**	**5.6877**	**0.4114**	**147,788.2357**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	136.2987	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360	0.0000	401.6775	401.6775	0.3836	0.0000	411.2667
Energy	2.0568	17.6633	8.1197	0.1122		1.4210	1.4210		1.4210	1.4210		22,437.3742	22,437.3742	0.4301	0.4114	22,570.7083
Mobile	22.3939	127.5340	277.1150	1.2214	150.6329	0.6473	151.2802	40.2167	0.6015	40.8182		124,684.4080	124,684.4080	4.8741		124,806.2607
Total	**160.7494**	**147.7603**	**507.4638**	**1.3454**	**150.6329**	**3.3044**	**153.9373**	**40.2167**	**3.2586**	**43.4752**	**0.0000**	**147,523.4597**	**147,523.4597**	**5.6877**	**0.4114**	**147,788.2357**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/28/2017	8/27/2017	5	0	
2	Site Preparation	Site Preparation	7/27/2019	7/26/2019	5	0	
3	Grading	Grading	9/19/2020	9/18/2020	5	0	
4	Building Construction	Building Construction	9/9/2023	9/8/2023	5	0	
5	Paving	Paving	5/24/2053	5/23/2053	5	0	
6	Architectural Coating	Architectural Coating	7/3/2055	7/2/2055	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1937.5

Acres of Paving: 0

Residential Indoor: 9,837,855; Residential Outdoor: 3,279,285; Non-Residential Indoor: 556,462; Non-Residential Outdoor: 185,487; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Panhandle Operational TS Title 24 Adjusted - No Commercial - Sacramento County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	437.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	2,185.00	762.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

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

3.2 Demolition - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

3.2 Demolition - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

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

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

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

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2053

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2053

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2053

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2055

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2055

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2055

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	22.3939	127.5340	277.1150	1.2214	150.6329	0.6473	151.2802	40.2167	0.6015	40.8182		124,684.4080	124,684.4080	4.8741		124,806.2607
Unmitigated	22.3939	127.5340	277.1150	1.2214	150.6329	0.6473	151.2802	40.2167	0.6015	40.8182		124,684.4080	124,684.4080	4.8741		124,806.2607

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	90.00	1,000.00	928.00	478,238	478,238
Elementary School	500.00	0.00	0.00	458,887	458,887
Junior High School	2,999.92	0.00	0.00	4,716,641	4,716,641
Single Family Housing	20,000.13	26,747.09	23265.38	50,077,454	50,077,454
Total	23,590.05	27,747.09	24,193.38	55,731,220	55,731,220

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	5.00	4.99	6.55	33.00	48.00	19.00	66	28	6
Elementary School	5.00	5.00	6.60	65.00	30.00	5.00	63	25	12
Junior High School	10.00	5.00	6.50	72.80	22.20	5.00	63	25	12
Single Family Housing	8.50	4.90	6.50	46.50	12.50	41.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
Junior High School	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
City Park	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
Single Family Housing	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.0568	17.6633	8.1197	0.1122		1.4210	1.4210		1.4210	1.4210		22,437.3742	22,437.3742	0.4301	0.4114	22,570.7083
NaturalGas Unmitigated	2.0568	17.6633	8.1197	0.1122		1.4210	1.4210		1.4210	1.4210		22,437.3742	22,437.3742	0.4301	0.4114	22,570.7083

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	1673.21	0.0180	0.1640	0.1378	9.8000e-004		0.0125	0.0125		0.0125	0.0125		196.8486	196.8486	3.7700e-003	3.6100e-003	198.0183
Junior High School	13175.9	0.1421	1.2918	1.0851	7.7500e-003		0.0982	0.0982		0.0982	0.0982		1,550.1090	1,550.1090	0.0297	0.0284	1,559.3206
Single Family Housing	175869	1.8966	16.2075	6.8968	0.1035		1.3104	1.3104		1.3104	1.3104		20,690.4166	20,690.4166	0.3966	0.3793	20,813.3694
Total		**2.0568**	**17.6633**	**8.1197**	**0.1122**		**1.4210**	**1.4210**		**1.4210**	**1.4210**		**22,437.3742**	**22,437.3742**	**0.4301**	**0.4114**	**22,570.7083**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	1.67321	0.0180	0.1640	0.1378	9.8000e-004		0.0125	0.0125		0.0125	0.0125		196.8486	196.8486	3.7700e-003	3.6100e-003	198.0183
Junior High School	13.1759	0.1421	1.2918	1.0851	7.7500e-003		0.0982	0.0982		0.0982	0.0982		1,550.1090	1,550.1090	0.0297	0.0284	1,559.3206
Single Family Housing	175.869	1.8966	16.2075	6.8968	0.1035		1.3104	1.3104		1.3104	1.3104		20,690.4166	20,690.4166	0.3966	0.3793	20,813.3694
Total		**2.0568**	**17.6633**	**8.1197**	**0.1122**		**1.4210**	**1.4210**		**1.4210**	**1.4210**		**22,437.3742**	**22,437.3742**	**0.4301**	**0.4114**	**22,570.7083**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	136.2987	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360	0.0000	401.6775	401.6775	0.3836	0.0000	411.2667
Unmitigated	136.2987	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360	0.0000	401.6775	401.6775	0.3836	0.0000	411.2667

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	17.5991					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	112.0341					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.6656	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360		401.6775	401.6775	0.3836		411.2667
Total	**136.2987**	**2.5630**	**222.2291**	**0.0118**		**1.2360**	**1.2360**		**1.2360**	**1.2360**	**0.0000**	**401.6775**	**401.6775**	**0.3836**	**0.0000**	**411.2667**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	17.5991					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	112.0341					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.6656	2.5630	222.2291	0.0118		1.2360	1.2360		1.2360	1.2360		401.6775	401.6775	0.3836		411.2667
Total	**136.2987**	**2.5630**	**222.2291**	**0.0118**		**1.2360**	**1.2360**		**1.2360**	**1.2360**	**0.0000**	**401.6775**	**401.6775**	**0.3836**	**0.0000**	**411.2667**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Panhandle Operational TS Title 24 Adjusted - No Commercial

Sacramento County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	500.00	Student	10.00	41,801.69	0
Junior High School	2,800.00	Student	7.56	329,172.71	0
City Park	57.80	Acre	57.80	2,517,768.00	0
Single Family Housing	2,699.00	Dwelling Unit	407.40	4,858,200.00	7206

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2035
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	557.05	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Panhandle Operational TS Title 24 Adjusted - No Commercial - Sacramento County, Annual

Project Characteristics - Adjusted SMUD intensity factor based on RPS and 2009 SMUD report

Land Use - No commercial, addition of 39 residential units

Construction Phase - Operational run only

Vehicle Trips - Trip lengths adjusted to match traffic study VMT. Trip generation rates match total trips from traffic study.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use - 2016 Title 24 adjustment: 5% decrease for non-residential; 28% reduction for residential.

Mobile Land Use Mitigation -

Mobile Commute Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	550.00	0.00
tblConstructionPhase	NumDays	7,750.00	0.00
tblConstructionPhase	NumDays	500.00	0.00
tblConstructionPhase	NumDays	775.00	0.00
tblConstructionPhase	NumDays	550.00	0.00
tblConstructionPhase	NumDays	300.00	0.00
tblEnergyUse	T24E	2.15	2.04
tblEnergyUse	T24E	2.15	2.04
tblEnergyUse	T24E	768.93	553.63
tblEnergyUse	T24NG	14.68	13.95
tblEnergyUse	T24NG	14.68	13.95
tblEnergyUse	T24NG	29,300.87	21,096.63
tblGrading	AcresOfGrading	0.00	1,937.50
tblLandUse	LotAcreage	0.96	10.00
tblLandUse	LotAcreage	876.30	407.40

tblProjectCharacteristics	CO2IntensityFactor	590.31	557.05
tblProjectCharacteristics	OperationalYear	2018	2035
tblVehicleTrips	CC_TL	5.00	4.99
tblVehicleTrips	CNW_TL	6.50	6.55
tblVehicleTrips	CNW_TL	6.50	6.60
tblVehicleTrips	CW_TL	10.00	5.00
tblVehicleTrips	CW_TL	10.00	5.00
tblVehicleTrips	HS_TL	5.00	4.90
tblVehicleTrips	HW_TL	10.00	8.50
tblVehicleTrips	ST_TR	22.75	17.30
tblVehicleTrips	SU_TR	16.74	16.06
tblVehicleTrips	WD_TR	1.89	1.56
tblVehicleTrips	WD_TR	1.29	1.00
tblVehicleTrips	WD_TR	1.62	1.07
tblVehicleTrips	WD_TR	9.52	7.41

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	24.4913	0.3204	27.7786	1.4700e-003		0.1545	0.1545		0.1545	0.1545	0.0000	45.5495	45.5495	0.0435	0.0000	46.6369
Energy	0.3754	3.2236	1.4818	0.0205		0.2593	0.2593		0.2593	0.2593	0.0000	10,438.9459	10,438.9459	0.4213	0.1405	10,491.3554
Mobile	3.4277	17.8359	38.3031	0.1780	20.7384	0.0918	20.8301	5.5526	0.0853	5.6378	0.0000	16,480.8980	16,480.8980	0.6127	0.0000	16,496.2163
Waste						0.0000	0.0000		0.0000	0.0000	649.8512	0.0000	649.8512	38.4051	0.0000	1,609.9789
Water						0.0000	0.0000		0.0000	0.0000	65.0467	408.6009	473.6476	0.2452	0.1459	523.2417
Total	**28.2943**	**21.3799**	**67.5636**	**0.1999**	**20.7384**	**0.5056**	**21.2440**	**5.5526**	**0.4991**	**6.0517**	**714.8979**	**27,373.9943**	**28,088.8921**	**39.7278**	**0.2864**	**29,167.4291**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	24.4913	0.3204	27.7786	1.4700e-003		0.1545	0.1545		0.1545	0.1545	0.0000	45.5495	45.5495	0.0435	0.0000	46.6369
Energy	0.3754	3.2236	1.4818	0.0205		0.2593	0.2593		0.2593	0.2593	0.0000	10,438.9459	10,438.9459	0.4213	0.1405	10,491.3554
Mobile	3.3626	17.5174	36.7961	0.1698	19.7015	0.0879	19.7894	5.2750	0.0817	5.3566	0.0000	15,721.9499	15,721.9499	0.5903	0.0000	15,736.7067
Waste						0.0000	0.0000		0.0000	0.0000	649.8512	0.0000	649.8512	38.4051	0.0000	1,609.9789
Water						0.0000	0.0000		0.0000	0.0000	65.0467	408.6009	473.6476	0.2452	0.1459	523.2417
Total	**28.2292**	**21.0614**	**66.0566**	**0.1917**	**19.7015**	**0.5018**	**20.2032**	**5.2750**	**0.4955**	**5.7705**	**714.8979**	**26,615.0462**	**27,329.9440**	**39.7053**	**0.2864**	**28,407.9195**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.23**	**1.49**	**2.23**	**4.11**	**5.00**	**0.76**	**4.90**	**5.00**	**0.72**	**4.65**	**0.00**	**2.77**	**2.70**	**0.06**	**0.00**	**2.60**

3.0 Construction Detail

Construction Phase

Panhandle Operational TS Title 24 Adjusted - No Commercial - Sacramento County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/28/2017	8/27/2017	5	0	
2	Site Preparation	Site Preparation	8/28/2017	8/27/2017	5	0	
3	Grading	Grading	8/28/2017	8/27/2017	5	0	
4	Building Construction	Building Construction	8/28/2017	8/27/2017	5	0	
5	Paving	Paving	8/28/2017	8/27/2017	5	0	
6	Architectural Coating	Architectural Coating	8/28/2017	8/27/2017	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1937.5

Acres of Paving: 0

Residential Indoor: 9,837,855; Residential Outdoor: 3,279,285; Non-Residential Indoor: 556,462; Non-Residential Outdoor: 185,487; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Panhandle Operational TS Title 24 Adjusted - No Commercial - Sacramento County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	2,185.00	762.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	437.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

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

3.2 Demolition - 2017

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.2 Demolition - 2017

Mitigated Construction Off-Site

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

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

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

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

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

3.4 Grading - 2017

Unmitigated Construction On-Site

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

3.4 Grading - 2017

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.4 Grading - 2017

Mitigated Construction Off-Site

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

3.5 Building Construction - 2017

Unmitigated Construction On-Site

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

3.5 Building Construction - 2017

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.5 Building Construction - 2017

Mitigated Construction Off-Site

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

3.6 Paving - 2017

Unmitigated Construction On-Site

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

3.6 Paving - 2017

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.6 Paving - 2017

Mitigated Construction Off-Site

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

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2017

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2017

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

Provide Traffic Calming Measures

Implement Trip Reduction Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.3626	17.5174	36.7961	0.1698	19.7015	0.0879	19.7894	5.2750	0.0817	5.3566	0.0000	15,721.9499	15,721.9499	0.5903	0.0000	15,736.7067
Unmitigated	3.4277	17.8359	38.3031	0.1780	20.7384	0.0918	20.8301	5.5526	0.0853	5.6378	0.0000	16,480.8980	16,480.8980	0.6127	0.0000	16,496.2163

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	90.17	999.94	928.27	478,448	454,526
Elementary School	500.00	0.00	0.00	458,887	435,943
Junior High School	2,996.00	0.00	0.00	4,710,478	4,474,954
Single Family Housing	19,999.59	26,747.09	23265.38	50,076,553	47,572,726
Total	23,585.76	27,747.03	24,193.65	55,724,367	52,938,148

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	5.00	4.99	6.55	33.00	48.00	19.00	66	28	6
Elementary School	5.00	5.00	6.60	65.00	30.00	5.00	63	25	12
Junior High School	10.00	5.00	6.50	72.80	22.20	5.00	63	25	12
Single Family Housing	8.50	4.90	6.50	46.50	12.50	41.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Elementary School	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
Junior High School	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
City Park	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566
Single Family Housing	0.578893	0.033999	0.212840	0.104491	0.010628	0.004325	0.018736	0.026318	0.001852	0.001362	0.005392	0.000598	0.000566

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6,724.1869	6,724.1869	0.3501	0.0724	6,754.5215
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6,724.1869	6,724.1869	0.3501	0.0724	6,754.5215
NaturalGas Mitigated	0.3754	3.2236	1.4818	0.0205		0.2593	0.2593		0.2593	0.2593	0.0000	3,714.7589	3,714.7589	0.0712	0.0681	3,736.8339
NaturalGas Unmitigated	0.3754	3.2236	1.4818	0.0205		0.2593	0.2593		0.2593	0.2593	0.0000	3,714.7589	3,714.7589	0.0712	0.0681	3,736.8339

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	610723	3.2900e-003	0.0299	0.0252	1.8000e-004		2.2800e-003	2.2800e-003		2.2800e-003	2.2800e-003	0.0000	32.5905	32.5905	6.2000e-004	6.0000e-004	32.7842
Junior High School	4.80921e+006	0.0259	0.2358	0.1980	1.4100e-003		0.0179	0.0179		0.0179	0.0179	0.0000	256.6379	256.6379	4.9200e-003	4.7100e-003	258.1630
Single Family Housing	6.4192e+007	0.3461	2.9579	1.2587	0.0189		0.2392	0.2392		0.2392	0.2392	0.0000	3,425.5305	3,425.5305	0.0657	0.0628	3,445.8867
Total		**0.3754**	**3.2236**	**1.4819**	**0.0205**		**0.2594**	**0.2594**		**0.2594**	**0.2594**	**0.0000**	**3,714.7589**	**3,714.7589**	**0.0712**	**0.0681**	**3,736.8339**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	610723	3.2900e-003	0.0299	0.0252	1.8000e-004		2.2800e-003	2.2800e-003		2.2800e-003	2.2800e-003	0.0000	32.5905	32.5905	6.2000e-004	6.0000e-004	32.7842
Junior High School	4.80921e+006	0.0259	0.2358	0.1980	1.4100e-003		0.0179	0.0179		0.0179	0.0179	0.0000	256.6379	256.6379	4.9200e-003	4.7100e-003	258.1630
Single Family Housing	6.4192e+007	0.3461	2.9579	1.2587	0.0189		0.2392	0.2392		0.2392	0.2392	0.0000	3,425.5305	3,425.5305	0.0657	0.0628	3,445.8867
Total		**0.3754**	**3.2236**	**1.4819**	**0.0205**		**0.2594**	**0.2594**		**0.2594**	**0.2594**	**0.0000**	**3,714.7589**	**3,714.7589**	**0.0712**	**0.0681**	**3,736.8339**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	309333	78.1602	4.0700e-003	8.4000e-004	78.5128
Junior High School	2.43588e+006	615.4822	0.0320	6.6300e-003	618.2588
Single Family Housing	2.38669e+007	6,030.5446	0.3140	0.0650	6,057.7500
Total		**6,724.1869**	**0.3501**	**0.0724**	**6,754.5215**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	309333	78.1602	4.0700e-003	8.4000e-004	78.5128
Junior High School	2.43588e+006	615.4822	0.0320	6.6300e-003	618.2588
Single Family Housing	2.38669e+007	6,030.5446	0.3140	0.0650	6,057.7500
Total		**6,724.1869**	**0.3501**	**0.0724**	**6,754.5215**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	24.4913	0.3204	27.7786	1.4700e-003		0.1545	0.1545		0.1545	0.1545	0.0000	45.5495	45.5495	0.0435	0.0000	46.6369
Unmitigated	24.4913	0.3204	27.7786	1.4700e-003		0.1545	0.1545		0.1545	0.1545	0.0000	45.5495	45.5495	0.0435	0.0000	46.6369

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.2118					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	20.4462					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.8332	0.3204	27.7786	1.4700e-003		0.1545	0.1545		0.1545	0.1545	0.0000	45.5495	45.5495	0.0435	0.0000	46.6369
Total	**24.4912**	**0.3204**	**27.7786**	**1.4700e-003**		**0.1545**	**0.1545**		**0.1545**	**0.1545**	**0.0000**	**45.5495**	**45.5495**	**0.0435**	**0.0000**	**46.6369**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.2118					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	20.4462					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.8332	0.3204	27.7786	1.4700e-003		0.1545	0.1545		0.1545	0.1545	0.0000	45.5495	45.5495	0.0435	0.0000	46.6369
Total	**24.4912**	**0.3204**	**27.7786**	**1.4700e-003**		**0.1545**	**0.1545**		**0.1545**	**0.1545**	**0.0000**	**45.5495**	**45.5495**	**0.0435**	**0.0000**	**46.6369**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	473.6476	0.2452	0.1459	523.2417
Unmitigated	473.6476	0.2452	0.1459	523.2417

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 68.8676	60.9036	3.1700e-003	6.6000e-004	61.1784
Elementary School	1.21212 / 3.11688	4.7113	1.7000e-003	9.8000e-004	5.0455
Junior High School	6.78787 / 17.4545	26.3833	9.5100e-003	5.4800e-003	28.2545
Single Family Housing	175.851 / 110.862	381.6493	0.2308	0.1387	428.7634
Total		**473.6476**	**0.2452**	**0.1459**	**523.2417**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 68.8676	60.9036	3.1700e-003	6.6000e-004	61.1784
Elementary School	1.21212 / 3.11688	4.7113	1.7000e-003	9.8000e-004	5.0455
Junior High School	6.78787 / 17.4545	26.3833	9.5100e-003	5.4800e-003	28.2545
Single Family Housing	175.851 / 110.862	381.6493	0.2308	0.1387	428.7634
Total		**473.6476**	**0.2452**	**0.1459**	**523.2417**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	649.8512	38.4051	0.0000	1,609.9789
Unmitigated	649.8512	38.4051	0.0000	1,609.9789

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	4.97	1.0089	0.0596	0.0000	2.4994
Elementary School	91.25	18.5229	1.0947	0.0000	45.8898
Junior High School	511	103.7284	6.1302	0.0000	256.9827
Single Family Housing	2594.16	526.5910	31.1206	0.0000	1,304.6070
Total		**649.8512**	**38.4051**	**0.0000**	**1,609.9789**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	4.97	1.0089	0.0596	0.0000	2.4994
Elementary School	91.25	18.5229	1.0947	0.0000	45.8898
Junior High School	511	103.7284	6.1302	0.0000	256.9827
Single Family Housing	2594.16	526.5910	31.1206	0.0000	1,304.6070
Total		**649.8512**	**38.4051**	**0.0000**	**1,609.9789**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation