

# Fairway Oaks Subdivision Project Initial Study/Mitigated Negative Declaration

## Errata Sheet August 20, 2012

### Introduction

This Erratum presents, in ~~strike-through~~ and double-underline format, the revisions to the Fairway Oaks Subdivision Initial Study/Mitigated Negative Declaration (IS/MND) (June 2012) needed to reflect the comments made during the public review period. The revisions to the IS/MND reflected in this Erratum do not affect the adequacy of the previous environmental analysis contained in the Fairway Oaks Subdivision IS/MND. Specifically, the changes provide clarification concerning comments provided to the City by the Sacramento Metropolitan Air Quality Management District (SMAQMD) regarding the greenhouse gas (GHG) section of the Fairway Oaks Subdivision IS/MND. Because the changes presented below would not result in any new significant impacts or increase in impact significance from what was identified in the IS/MND, recirculation of the Fairway Oaks Subdivision IS/MND is not required.

### Changes to IS/MND

#### Section VII, Greenhouse Gas Emissions

Section VII, Greenhouse Gas Emissions, of the IS/MND is hereby revised as follows:

a,b) In September 2006, Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the California Climate Solutions Act of 2006 (Stats. 2006, ch. 488) (Health & Saf. Code, § 38500 et seq.). AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. AB 32 delegated the authority for its implementation to the California Air Resources Board (CARB) and directs CARB to enforce the statewide cap. Based on CARB's ~~1990 to 2004~~ 2005 GHG inventory data, at the time AB 32 was signed in 2006, the GHG emissions level in California was estimated at 600 million metric tons of CO<sub>2</sub> equivalent (MMT<sub>CO<sub>2</sub>e</sub>) while 1990 levels were estimated to be 427 MMT<sub>CO<sub>2</sub>e</sub>. Thus, CARB staff recommended 427 MMT<sub>CO<sub>2</sub>e</sub> as the total statewide GHG 1990 emissions level and 2020 emissions limit, which would require a reduction in emission levels of 29 percent from 2005 Business as Usual (BAU) levels by 2020. The 2020 statewide limit was approved on December 6, 2007. Since that time, in accordance with AB 32, CARB has prepared the *Climate Change Scoping Plan* (Scoping Plan) for California, which was approved in 2008. In 2011, the *Functional Equivalent Document* for the Scoping Plan was amended and the Scoping Plan was re-approved August 24, 2011. The *Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document* includes updated projected BAU emissions based on more recent (2010) data. According to the supplemental report, a 16 percent reduction below the revised estimated BAU levels would be necessary to return to 1990 levels by 2020. Accordingly, California GHG emissions must be reduced by 173 MMT<sub>CO<sub>2</sub>e</sub>, or by ~~29-16~~ percent, relative to a 2010 Business As Usual (BAU) scenario by 2020.

SMAQMD recommends that the threshold of significance for GHG emissions selected by lead agencies be related to compliance with AB 32. Historically, the City of Galt utilizes a 29 percent reduction in GHG emissions as a threshold of significance, in accordance with the original goal set forth by the CARB based on 2005 inventory data. Accordingly, However, the City of Galt, as lead agency, shall require a quantitative GHG analysis for development

projects in order to demonstrate a project would reduce GHG emissions from 2010 BAU levels by 16 percent by 2020, in accordance with the *Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document*. General Plan EIR states that a significant impact related to GHG emissions would result if a conflict with the State's goal of reducing GHG emissions to 1990 levels by 2020 would result, as set forth by AB 32. Therefore, if the proposed project does not show a 16 percent reduction of project-related GHG emissions from 2010 BAU levels by 2020, the project would be considered to result in a cumulatively considerable contribution to global climate change.'s GHG emissions would substantially hinder the State's ability to attain the state-wide GHG reduction to 1990 levels by 2020, then the proposed project's GHG emissions would be considered significant. Various mitigation measures exist to reduce GHG emissions, including suggested measures from the Office of the Attorney General and the CARB as well as measures developed by local air quality control and management districts. In addition, the proposed project would be required to comply with the 2010 Green Building Standards Code (CalGreen Code), which includes such measures as a 20 percent mandatory reduction in indoor water use and diversion of 50 percent of construction waste from landfills. A variety of voluntary CalGreen Code measures also exists that would further reduce GHG emissions, but are not mandatory.

Implementation of the proposed project would contribute to increases of GHG emissions that are associated with global climate change. Estimated GHG emissions attributable to future development would be primarily associated with increases of CO<sub>2</sub> and other GHGs, such as CH<sub>4</sub> and N<sub>2</sub>O, from vehicles and utility usage. SMAQMD accepts the use of both the URBEMIS model and the South Coast Air Quality Management District's land use emissions model, CalEEMod, for quantification of GHG emissions. CalEEMod is a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions from land use projects. The model quantifies direct emissions from construction and operation (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The proposed project's short-term construction-related GHG emissions and long-term operational project GHG emissions were estimated using CalEEMod. Emissions are expressed in annual metric tons of CO<sub>2</sub> equivalent units of measure (i.e., MTCO<sub>2</sub>e), based on the global warming potential of the individual pollutants.

#### Short-Term GHG Emissions

Estimated increases in GHG emissions associated with construction of the proposed project are summarized in Table 4 (See Appendix B for CalEEMod output).

<b>Year</b>	<b>CO<sub>2</sub> emissions (MTCO<sub>2</sub>e)</b>
2012	417.06
2013	<del>98.63</del> 102.25
<b>Total Construction GHG Emissions</b>	<del>515.69</del> <b>519.31</b>
<i>Source: CalEEMod, December 2011-August 2012.</i>	

Based on the modeling conducted, short-term emissions of GHG associated with construction of the proposed project are estimated to be ~~515.69~~ 519.31 MTCO<sub>2</sub>e. Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Due to the size of the proposed project, the project's estimated construction-related GHG contribution to global climate change would be considered negligible on the overall global emissions scale. However, in order to present a worst-case scenario, the proposed project's construction-related GHG emissions have been amortized over the lifetime of the proposed project and

included with the operational GHG emissions.

### Long-Term GHG Emissions

The long-term operational GHG emissions estimate for the proposed project incorporates the project's potential area source and vehicle emissions, emissions associated with utility and water usage, and the generation of wastewater and solid waste. In addition, as noted above, the proposed project's construction-related GHG emissions have been amortized over the lifetime of the proposed project and included with the annual operational GHG emissions in order to present the absolute worst-case scenario. It should be noted that various environmental features are proposed to be implemented as part of the project that would reduce the project's operational GHG emissions. The environmental features include a variety of energy, solid waste, and water conservation features such as utilizing drought tolerant or native landscaping plants, installing ultra-low flush toilets, reuse or recycling of construction and demolition waste, utilizing energy efficient light, heating and cooling systems, and upgrading housing performance to exceed Title 24 requirements by a minimum of 15 percent (See Appendix C). Implementation of the environmental features would be a condition of approval for the proposed project tentative map. Some of the features have quantifiable associated GHG emission reductions (based on available information from California Air Pollution Control Officers Association [CAPCOA]'s *Quantifying Greenhouse Gas Mitigation Measures* and the Bay Area Air Quality Management District's *CEQA Guidelines*); however, some of the environmental features are considered Best Management Practices (BMPs) which cannot be quantified with any certainty. Therefore, based on available data, the following environmental features were included in the modeling for the proposed project:

- Minimizing turf areas by limiting to 33 percent or less of landscaped areas;
- Installing high efficiency irrigation systems that use low flow drip, bubblers, or sprinklers;
- Installing flow reducers on faucets and showerheads;
- Installing ultra-low flush toilets;
- Upgrading house performance to exceed Title 24 requirements by at least 15 percent; and
- Not installing fireplaces (utilize sealed gas units with efficiency rating of 60 percent or greater using CSA Standards.

Although all of the environmental features proposed for the project cannot be adequately quantified at this time, and uncertainty exists for those that have been quantified, the features would contribute towards a reduction of GHG emissions.

Estimated increases in GHG emissions associated with the proposed project, including construction emissions and taking into considerations the environmental features of the project listed above, at operational year 2020 are summarized in Table 5 (See Appendix B for CalEEMod output). As shown in the table, the annual GHG emissions associated with the proposed project by year 2020 would be 4,685.59-1,424.45 MTCO<sub>2</sub>e per year.

<b>Table 5 Operational GHG Emissions (Year 2020)</b>	
	<b>Annual CO<sub>2</sub> emissions (MTCO<sub>2</sub>e)</b>
Annual Operational GHG Emissions	1,675.28 <del>1,414.06</del>
Total Construction GHG Emissions <sup>1</sup>	10.31 <del>10.39</del>
<b>TOTAL GHG Emissions</b>	<b>1,685.59 <del>1,424.45</del></b>
<p><sup>1</sup> Construction GHG emissions are a one-time release; however, the project's construction GHG emissions have been amortized over a 50-year period (i.e., the approximate lifetime of the proposed project) and added to the annual operational GHG emissions in order to present an absolute worst-case scenario. Because construction would occur for only two years (as presented in Table 4 above), it should be noted that assuming construction emissions occur each year presents an exaggerated total value for operational GHG emissions.</p> <p><i>Source: CalEEMod, December 2011-August 2012.</i></p>	

It should be noted that various environmental features are proposed to be implemented as part of the project that would reduce the project's operational GHG emissions. The environmental features include a variety of energy, solid waste, and water conservation features such as utilizing drought tolerant or native landscaping plants, installing ultra-low flush toilets, reuse or recycling of construction and demolition waste, utilizing energy efficient light, heating and cooling systems, and upgrading housing performance to exceed Title 24 requirements by a minimum of 15 percent (See Appendix C). Implementation of the environmental features would be a condition of approval for the proposed project tentative map. Some of the features have quantifiable associated GHG emission reductions (based on available information from California Air Pollution Control Officers Association [CAPCOA]'s *Quantifying Greenhouse Gas Mitigation Measures* and the Bay Area Air Quality Management District's *CEQA Guidelines*); however, some of the environmental features are considered Best Management Practices (BMPs) which cannot be quantified with any certainty. Therefore, based on available data, the following environmental features of the proposed project would reduce the project's GHG emissions to approximately 1,523.07 MTCO<sub>2</sub>e per year (See Appendix B for GHG reduction calculations):

- Minimizing turf areas by limiting to 33 percent or less of landscaped areas;
- Installing high efficiency irrigation systems that use low flow drip, bubblers, or sprinklers;
- Installing flow reducers on faucets and showerheads;
- Installing ultra-low flush toilets;
- Upgrading house performance to exceed Title 24 requirements by at least 15 percent;
- Not installing fireplaces (utilize sealed gas units with efficiency rating of 60 percent or greater using CSA Standards);
- Planting shade trees;
- Meeting the CalGreen Code;
- Installing high efficiency HVAC filters; and
- Providing "complete streets" (i.e., bike and pedestrian features).

Although all of the environmental features proposed for the project cannot be adequately quantified at this time, and uncertainty exists for those that have been quantified, the features would contribute towards a reduction of GHG emissions. In addition to the environmental

features discussed above, the proposed project includes a 10.7-acre Open Space area that would include a neighborhood park with an oak tree preserve and a Class I bike trail that travels along Dry Creek. Furthermore, the proposed project includes an alternative access for pedestrians and bicycles to provide a direct connection from the project site to the Glendale Avenue/SR 99 southbound ramps intersection, which is intended to encourage alternative transportation. As a result, the project design alone with the incorporation of environmental features would reduce the project's GHG emissions from BAU levels.

Consistent with the SMAQMD's recommendation that significance thresholds for GHG emissions be related to compliance with AB 32, the City, as lead agency, utilizes a threshold of significance for GHG emissions that a development project must show a minimum GHG emission reduction of 16 percent from 2010 BAU levels by 2020, consistent with the Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document. Thus, the project's 2010 BAU levels were evaluated in order to determine the net decrease in the proposed project's GHG emissions over time. In order to estimate the 2010 BAU levels for the proposed project, the same land use and trip generation rates for the project were applied to the modeling, except at an operational year of 2010. As presented in Table 6 below, the proposed project's 2010 BAU GHG emissions, including construction-related emissions, were estimated to be approximately 1,758.01 MTCO<sub>2</sub>e per year.

<b>Table 6</b>	
<b>Operational GHG Emissions (2010 BAU)</b>	
	<b>Annual CO<sub>2</sub> emissions (MTCO<sub>2</sub>e)</b>
<u>Annual Operational GHG Emissions</u>	<u>1,747.62</u>
<u>Total Construction GHG Emissions<sup>1</sup></u>	<u>10.39</u>
<b><u>TOTAL GHG EMISSIONS</u></b>	<b><u>1,758.01</u></b>
<sup>1</sup> See Table 5; Amortized over the estimated 50-year project lifetime.	
Source: CalEEMod, December 2011-August 2012.	

Consequently, the proposed project would result in approximately a 18.97 percent reduction in annual GHG emissions from the project's 2010 BAU level by 2020 ([1,758.01 MTCO<sub>2</sub>e at 2010 BAU – 1,424.45 MTCO<sub>2</sub>e at year 2020] / 1,758.01 MTCO<sub>2</sub>e at 2010 BAU x 100% = 18.97%), which exceeds the 16 percent minimum GHG emission reduction threshold utilized by the City. The reduction in the proposed project's GHG emissions over the years would be attributable to the advancement of vehicle and equipment efficiency as well as more stringent standards and regulations as time progresses. It should be noted that although a reduction related to such attributes would occur for every development project, CalEEMod takes into consideration how much of each attribute is applied for each specific project based on the size of the project and associated land uses.

As mentioned previously, the Office of the Attorney General has compiled a list of a variety of suggested measures for reducing the global warming-related impacts of an individual project; however, it should be noted that the list is not intended to be exhaustive. Therefore, Table 6<sup>7</sup> presents applicable suggested measures and how the proposed project would comply with the measures.

<b>Table 6<sup>7</sup></b> <b>Suggested Measures vs. Project Environmental Features</b>
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Office of the California Attorney General Methods to Offset or Reduce Global Warming Impacts	Project Environmental Features
<b>Energy Efficiency</b>	
Incorporate green building practices and design elements.	Project environmental features include compliance with the CalGreen Code as well as various other environmental features that support green building and design, such as energy efficiency measures for landscaping, plumbing, insulation, windows, and heating, ventilation, and air conditioning.
Install energy efficient lighting (e.g., light emitting diodes (LEDs)), heating and cooling systems, appliances, equipment, and control systems.	Project environmental features include compliance with the CalGreen Code, installation of energy efficient lighting and control systems, plumbing for solar hot water and electricity, upgrading house performance to exceed Title 24 requirements by a minimum of 15 percent, installation of insulation with a California 01350 Specification or without added formaldehydes, installation of energy efficient windows with double panes, low-emissivity, and low conductivity frames, installation of energy efficiency heating and cooling systems, appliances, equipment, and control systems, and not installing fireplaces.
Use passive solar design, e.g., orient buildings and incorporate landscaping to maximize passive solar heating during cool seasons, and enhance natural ventilation. Design buildings to take advantage of sunlight.	Project environmental features include compliance with the CalGreen Code and the planting of shade trees.
Install light colored "cool" roofs and cool pavements.	Project environmental features include compliance with the CalGreen Code and the use of durable and non-combustible roofing materials like concrete tiles.
Install efficient lighting, (including LEDs) for traffic, street, and other outdoor lighting.	Project environmental features include compliance with the CalGreen Code, reduction of outdoor light pollution by shielding fixtures and/or directing light downward, reduction of unnecessary outdoor lighting, and installation of energy efficient lighting and control systems.
Reduce unnecessary outdoor	Included as an environmental

<b>Table 6.7</b>	
<b>Suggested Measures vs. Project Environmental Features</b>	
<b>Office of the California Attorney General Methods to Offset or Reduce Global Warming Impacts</b>	<b>Project Environmental Features</b>
lighting.	feature of the project.
Use automatic covers, efficient pumps and motors, and solar heating for pools and spas.	Included as an environmental feature of the project.
<b>Renewable Energy and Energy Storage</b>	
Install solar, wind, and geothermal power systems and solar hot water heaters.	Project environmental features include compliance with the CalGreen Code, plumbing for solar hot water and electricity, and encouraging use of solar heating for pools and spas.
<b>Water Conservation and Efficiency</b>	
Incorporate water-reducing features into building and landscape design.	Included as an environmental feature of the project.
Create water-efficient landscapes.	Included as an environmental feature of the project. Other project environmental features include compliance with the CalGreen Code, not using invasive plant species listed by the California Invasive Plant Council (Cal-IPC), having 75 percent of plants be drought tolerant or California natives, minimizing turf areas by not installing on slopes exceeding 10 percent or in areas less than 8-feet-wide, limiting the turf to 33 percent or less of landscaped areas, and grouping plants by water needs.
Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls and use water-efficient irrigation methods.	Project environmental features include compliance with the CalGreen Code and installing high efficiency irrigation systems that use low flow drip, bubblers, or sprinklers.
Design buildings to be water-efficient. Install water-efficient fixtures and appliances.	Project environmental features include installing flow reducers on faucets, showerheads, and ultra-low flush toilets.
Provide education about water conservation and available programs and incentives.	Included as an environmental feature of the project.
<b>Solid Waste Measures</b>	
Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).	Included as an environmental feature of the project.
Integrate reuse and recycling into	Project environmental features

<b>Table 6.7</b>	
<b>Suggested Measures vs. Project Environmental Features</b>	
<b>Office of the California Attorney General Methods to Offset or Reduce Global Warming Impacts</b>	<b>Project Environmental Features</b>
residential, industrial, institutional, and commercial projects.	include compliance with the CalGreen Code, reuse and recycling of construction and demolition waste, incorporation of recycled flyash in concrete, using sustainable decking materials like recycled content or Forest Stewardship Councils (FSC) certified wood, and using alternative siding materials like recycled content or fiber-cement siding.
Provide education and publicity about reducing waste and available recycling services.	Included as an environmental feature of the project.
<b>Land Use Measures</b>	
Ensure consistency with “smart growth” principles - mixed-use, infill, and higher density projects that provide alternatives to individual vehicle travel and promote the efficient delivery of services and goods.	The proposed project includes a rezone of a portion of the site from Low-Density Single-Family Planned Development (R1A-PD) to Maximum-Density Single-Family Residential Planned Development (R1C-PD). The majority of the surrounding area consists of existing development. Approximately 11 acres of open space would be preserved and available for public use and enjoyment.
Preserve and create open space and parks. Preserve existing trees, and plant replacement trees at a set ratio.	The proposed project includes approximately 11 acres of open space for public use and enjoyment. The project’s impacts on existing trees is discussed in detail in the Biological Resources section of this IS/MND. It should be noted that the project would comply with the City’s Street Tree Ordinance and General Plan policies related to tree preservation.
Include pedestrian and bicycle facilities within projects and ensure that existing non-motorized routes are maintained and enhanced.	The proposed project includes pedestrian and bicycle paths and sidewalks, including a bike trail connection with Lincoln Way to the west and Glendale Avenue to the north. The improvements would connect the open space area to schools, parks, and other destination points. A direct pedestrian and bicycle connection is included from Chase Drive to the



<b>Table 6.7</b>	
<b>Suggested Measures vs. Project Environmental Features</b>	
<b>Office of the California Attorney General Methods to Offset or Reduce Global Warming Impacts</b>	<b>Project Environmental Features</b>
	Glendale Avenue/SR 99 southbound ramps intersection as well, which would encourage alternative transportation. Project environmental features include that new residents be provided with information on available alternate transportation options.
<b>Transportation and Motor Vehicles</b>	
Promote "least polluting" ways to connect people and goods to their destinations.	See above. Pedestrian and bicycle paths and sidewalks are proposed, which are intended to encourage the use of alternative transportation.
Incorporate bicycle lanes, routes, and facilities into street systems, new subdivisions, and large developments.	See above. The proposed project includes pedestrian and bicycle paths and sidewalks.
Ensure that the project enhances, and does not disrupt or create barriers to, non-motorized transportation.	See above. An alternative access point to the project site is proposed, which would be a direct pedestrian and bicycle connection from Chase Drive to Glendale Avenue.
Connect parks and open space through shared pedestrian/bike paths and trails to encourage walking and bicycling. Create bicycle lanes and walking paths directed to the location of schools, parks, and other destination points.	See above. The project includes pedestrian/bike paths and trails, including a Class I bike trail along Dry Creek, which would continue north along the eastern portion of the site. The bike trail would eventually connect with Lincoln Way to the west and become a Class II on-street bike path on Lincoln Way. The bike trail would also connect to Glendale Avenue to the north, and would become a Class II on-street lane. The improvements would connect the open space area to schools, parks, and other destination points. In addition, a direct pedestrian and bicycle connection from the project site to the Glendale Avenue/SR 99 southbound ramps intersection is proposed, which is intended to encourage alternative transportation.
Provide information on alternative transportation options for consumers, residents, tenants, and employees to reduce transportation-related emissions.	Project environmental features include that new residents would be provided information on available alternative transportation options.

<b>Table 6.7</b>	
<b>Suggested Measures vs. Project Environmental Features</b>	
<b>Office of the California Attorney General Methods to Offset or Reduce Global Warming Impacts</b>	<b>Project Environmental Features</b>
Enforce and follow limits on idling time for commercial vehicles, including delivery and construction vehicles.	An idling time of five minutes for construction equipment and vehicles is required, per Mitigation Measure III-2 in the Air Quality section of this IS/MND and the California Code of Regulations.
<b>Agriculture and Forestry</b>	
Preserve forested areas, agricultural lands, wildlife habitat and corridors, wetlands, watersheds, groundwater recharge areas, and other open space that provide carbon sequestration benefits.	The proposed project includes approximately 11 acres of open space that would include an oak tree preserve. Dry Creek, which is a large natural drainage and a substantial riparian area, comprises much of the eastern border of the project site. Several seasonal wetlands occur in this riparian area as well. Mitigation Measures IV-13 and IV-14 in the Biological Resources section of this IS/MND ensure that any impacts related to the wetlands and riparian area would be reduced to less-than-significant levels.
Protect existing trees and encourage the planting of new trees. Adopt a tree protection and replacement ordinance.	As stated previously and discussed further in the Biological Resources section of this IS/MND, the proposed project would comply with the City's Street Tree Ordinance and General Plan policies related to tree preservation.

## Conclusion

The City's General Plan EIR states that, depending on the feasibility and level of implementation as applied to individual development projects consistent with the General Plan, the inclusion of trip reduction measures, energy conservation policies, and future project-specific compliance with SMAQMD permitting would reduce air quality and GHG emissions. However, because the increase in GHG emissions from buildout of the General Plan could potentially conflict with the goal of AB 32 to reduce GHG emissions to 1990 levels by 2020, the EIR made the conservative determination that a significant and unavoidable impact would result. It should be noted that Findings of Fact and a Statement of Overriding Considerations were adopted as part of the EIR Certification. Because the proposed project is consistent with the City's General Plan, the project's GHG emissions were included in the General Plan EIR's analysis for buildout of the entire General Plan. In addition, the proposed project includes environmental features that would reduce the project's GHG emissions from BAU levels and is consistent with various suggested measures from the Office of the Attorney General. Therefore, the proposed project would not result in emissions of GHG in excess of what has already been anticipated in the General Plan EIR.

~~Consequently, the proposed project would not result in increased GHG emissions, but, on the contrary, would reduce GHG emissions from what was anticipated in the General Plan EIR, which was already overridden by the City. Therefore, the proposed project would result in less than significant impacts related to operational GHG emissions. However, the project's estimated GHG emissions have been provided for disclosure purposes.~~

## Conclusion

Furthermore, As stated previously, short-term construction GHG emissions are a one-time release of GHGs and are not expected to significantly contribute to global climate change over the lifetime of the proposed project; however, construction emissions have been included with the operational emissions in order to present a worst-case scenario. Even under a worst-case scenario, where construction GHG emissions are amortized over the lifetime of the project and incorporated into the estimated annual operational GHG emissions, the overall annual GHG emissions associated with the project would still be reduced by over 16 percent by the year 2020. It should be noted that the actual annual emissions over the lifetime of the project would be less than presented above, due to the one-time release of construction-related GHG emissions as well as the remaining environmental features of the project that could not be included in the modeling. Because the project would meet the City's 16 percent minimum reduction threshold, per the *Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document*, the project would not be expected to hinder the State's ability to reach the GHG reduction target or conflict with an applicable plan, policy, or regulation related to GHG reduction. Therefore, impacts related to GHG emissions and global climate change would be considered **less-than-significant**.

~~The proposed project is incorporating various environmental features that would reduce the project's annual operational GHG emissions by at least 10.04 percent. As shown in Table 6, the environmental features are consistent with various suggested measures from the Office of the Attorney General. Although the exact total reduction due to all of the proposed project's environmental features cannot be calculated at this time with any certainty, the proposed project's operational GHG emissions would be below BAU levels and below what was anticipated in the General Plan EIR analysis. The proposed project is consistent with the City's General Plan, GHG emissions of which were determined in the EIR to be significant and unavoidable, but were overridden by the City through the adoption of Findings of Fact and a Statement of Overriding Considerations. Therefore, because the proposed project would not result in emissions of GHG in excess of what has already been anticipated in the General Plan EIR, for which Findings of Fact and a Statement of Overriding Considerations~~

~~was adopted, and includes GHG emission reduction features that would reduce project-related GHG emissions from BAU, the proposed project's GHG emissions would not be expected to conflict with the State's goal per AB 32 or any other plans or regulations for reducing GHG emissions. Therefore, the proposed project would have a **less-than-significant** impact on the environment.~~

The modeling results associated with the above changes are attached. The above changes are for clarification purposes only and do not change the conclusions of the IS/MND.

**Attachment**

**GHG Modeling Results**

**Galt Fairway Oaks - YEAR 2020**  
**Sacramento Metropolitan AQMD Air District, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
Single Family Housing	100	Dwelling Unit

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	3.5	<b>Utility Company</b>	Sacramento Municipal Utility District
<b>Climate Zone</b>	6	<b>Precipitation Freq (Days)</b>	58		

**1.3 User Entered Comments**

Project Characteristics - Note: Gas is anticipated to be provided by PG&E; electricity is anticipated to be provided by SMUD. Estimations in this analysis are based on SMUD factors only.

Land Use - Based on information from applicant.

Construction Phase - Based on URBEMIS model defaults.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

## 2.0 Emissions Summary

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### 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					
2012											0.00	416.08	416.08	0.05	0.00	417.06
2013											0.00	102.02	102.02	0.01	0.00	102.25
<b>Total</b>											<b>0.00</b>	<b>518.10</b>	<b>518.10</b>	<b>0.06</b>	<b>0.00</b>	<b>519.31</b>

#### 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					
2012											0.00	416.08	416.08	0.05	0.00	417.06
2013											0.00	102.02	102.02	0.01	0.00	102.25
<b>Total</b>											<b>0.00</b>	<b>518.10</b>	<b>518.10</b>	<b>0.06</b>	<b>0.00</b>	<b>519.31</b>

## 2.2 Overall Operational

### Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.00	1.23	1.23	0.00	0.00	1.25
Energy											0.00	366.62	366.62	0.01	0.01	369.05
Mobile											0.00	1,017.38	1,017.38	0.04	0.00	1,018.19
Waste											19.51	0.00	19.51	1.15	0.00	43.73
Water											0.00	12.57	12.57	0.20	0.01	18.37
<b>Total</b>											<b>19.51</b>	<b>1,397.80</b>	<b>1,417.31</b>	<b>1.40</b>	<b>0.02</b>	<b>1,450.59</b>



## 2.2 Overall Operational

### Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.00	1.23	1.23	0.00	0.00	1.25
Energy											0.00	333.47	333.47	0.01	0.01	335.69
Mobile											0.00	1,017.38	1,017.38	0.04	0.00	1,018.19
Waste											19.51	0.00	19.51	1.15	0.00	43.73
Water											0.00	10.56	10.56	0.16	0.00	15.20
<b>Total</b>											<b>19.51</b>	<b>1,362.64</b>	<b>1,382.15</b>	<b>1.36</b>	<b>0.01</b>	<b>1,414.06</b>

## 3.0 Construction Detail

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### 3.1 Mitigation Measures Construction

### 3.2 Grading - 2012

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	152.62	152.62	0.02	0.00	152.95
<b>Total</b>											<b>0.00</b>	<b>152.62</b>	<b>152.62</b>	<b>0.02</b>	<b>0.00</b>	<b>152.95</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	2.63	2.63	0.00	0.00	2.64
<b>Total</b>											<b>0.00</b>	<b>2.63</b>	<b>2.63</b>	<b>0.00</b>	<b>0.00</b>	<b>2.64</b>

### 3.2 Grading - 2012

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	152.62	152.62	0.02	0.00	152.95
<b>Total</b>											<b>0.00</b>	<b>152.62</b>	<b>152.62</b>	<b>0.02</b>	<b>0.00</b>	<b>152.95</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	2.63	2.63	0.00	0.00	2.64
<b>Total</b>											<b>0.00</b>	<b>2.63</b>	<b>2.63</b>	<b>0.00</b>	<b>0.00</b>	<b>2.64</b>

### 3.3 Paving - 2012

#### 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											0.00	14.55	14.55	0.00	0.00	14.61
Paving											0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>											<b>0.00</b>	<b>14.55</b>	<b>14.55</b>	<b>0.00</b>	<b>0.00</b>	<b>14.61</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	0.70	0.70	0.00	0.00	0.70
<b>Total</b>											<b>0.00</b>	<b>0.70</b>	<b>0.70</b>	<b>0.00</b>	<b>0.00</b>	<b>0.70</b>

### 3.3 Paving - 2012

#### 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											0.00	14.55	14.55	0.00	0.00	14.61
Paving											0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>											<b>0.00</b>	<b>14.55</b>	<b>14.55</b>	<b>0.00</b>	<b>0.00</b>	<b>14.61</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	0.70	0.70	0.00	0.00	0.70
<b>Total</b>											<b>0.00</b>	<b>0.70</b>	<b>0.70</b>	<b>0.00</b>	<b>0.00</b>	<b>0.70</b>

### 3.4 Building Construction - 2012

#### 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											0.00	212.55	212.55	0.03	0.00	213.10
<b>Total</b>											<b>0.00</b>	<b>212.55</b>	<b>212.55</b>	<b>0.03</b>	<b>0.00</b>	<b>213.10</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	15.29	15.29	0.00	0.00	15.30
Worker											0.00	17.74	17.74	0.00	0.00	17.76
<b>Total</b>											<b>0.00</b>	<b>33.03</b>	<b>33.03</b>	<b>0.00</b>	<b>0.00</b>	<b>33.06</b>

### 3.4 Building Construction - 2012

#### 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											0.00	212.55	212.55	0.03	0.00	213.10
<b>Total</b>											<b>0.00</b>	<b>212.55</b>	<b>212.55</b>	<b>0.03</b>	<b>0.00</b>	<b>213.10</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	15.29	15.29	0.00	0.00	15.30
Worker											0.00	17.74	17.74	0.00	0.00	17.76
<b>Total</b>											<b>0.00</b>	<b>33.03</b>	<b>33.03</b>	<b>0.00</b>	<b>0.00</b>	<b>33.06</b>

### 3.4 Building Construction - 2013

#### 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											0.00	82.45	82.45	0.01	0.00	82.65
<b>Total</b>											<b>0.00</b>	<b>82.45</b>	<b>82.45</b>	<b>0.01</b>	<b>0.00</b>	<b>82.65</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	5.95	5.95	0.00	0.00	5.96
Worker											0.00	6.72	6.72	0.00	0.00	6.73
<b>Total</b>											<b>0.00</b>	<b>12.67</b>	<b>12.67</b>	<b>0.00</b>	<b>0.00</b>	<b>12.69</b>



### 3.4 Building Construction - 2013

#### 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											0.00	82.45	82.45	0.01	0.00	82.65
<b>Total</b>											<b>0.00</b>	<b>82.45</b>	<b>82.45</b>	<b>0.01</b>	<b>0.00</b>	<b>82.65</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	5.95	5.95	0.00	0.00	5.96
Worker											0.00	6.72	6.72	0.00	0.00	6.73
<b>Total</b>											<b>0.00</b>	<b>12.67</b>	<b>12.67</b>	<b>0.00</b>	<b>0.00</b>	<b>12.69</b>

### 3.5 Architectural Coating - 2013

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	5.61	5.61	0.00	0.00	5.63
<b>Total</b>											<b>0.00</b>	<b>5.61</b>	<b>5.61</b>	<b>0.00</b>	<b>0.00</b>	<b>5.63</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	1.28	1.28	0.00	0.00	1.28
<b>Total</b>											<b>0.00</b>	<b>1.28</b>	<b>1.28</b>	<b>0.00</b>	<b>0.00</b>	<b>1.28</b>

### 3.5 Architectural Coating - 2013

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	5.61	5.61	0.00	0.00	5.63
<b>Total</b>											<b>0.00</b>	<b>5.61</b>	<b>5.61</b>	<b>0.00</b>	<b>0.00</b>	<b>5.63</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	1.28	1.28	0.00	0.00	1.28
<b>Total</b>											<b>0.00</b>	<b>1.28</b>	<b>1.28</b>	<b>0.00</b>	<b>0.00</b>	<b>1.28</b>

### 4.0 Mobile Detail

#### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.00	1,017.38	1,017.38	0.04	0.00	1,018.19
Unmitigated											0.00	1,017.38	1,017.38	0.04	0.00	1,018.19
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	957.00	1,008.00	877.00	2,632,813	2,632,813
<b>Total</b>	<b>957.00</b>	<b>1,008.00</b>	<b>877.00</b>	<b>2,632,813</b>	<b>2,632,813</b>

#### 4.3 Trip Type Information

Land Use	Miles			Trip %		
	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
Single Family Housing	10.80	7.30	7.50	32.90	18.00	49.10

### 5.0 Energy Detail

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### 5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive 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											0.00	163.82	163.82	0.01	0.00	165.00
Electricity Unmitigated											0.00	172.64	172.64	0.01	0.00	173.89
NaturalGas Mitigated											0.00	169.65	169.65	0.00	0.00	170.68
NaturalGas Unmitigated											0.00	193.98	193.98	0.00	0.00	195.16
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 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	tons/yr										MT/yr					
Single Family Housing	3.63497e+006											0.00	193.98	193.98	0.00	0.00	195.16
<b>Total</b>												<b>0.00</b>	<b>193.98</b>	<b>193.98</b>	<b>0.00</b>	<b>0.00</b>	<b>195.16</b>

### 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	tons/yr										MT/yr					
Single Family Housing	3.1791e+006											0.00	169.65	169.65	0.00	0.00	170.68
<b>Total</b>												<b>0.00</b>	<b>169.65</b>	<b>169.65</b>	<b>0.00</b>	<b>0.00</b>	<b>170.68</b>

### 5.3 Energy by Land Use - Electricity

#### Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Single Family Housing	685459					172.64	0.01	0.00	173.89
<b>Total</b>						<b>172.64</b>	<b>0.01</b>	<b>0.00</b>	<b>173.89</b>

#### Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Single Family Housing	650431					163.82	0.01	0.00	165.00
<b>Total</b>						<b>163.82</b>	<b>0.01</b>	<b>0.00</b>	<b>165.00</b>

## 6.0 Area Detail

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### 6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.00	1.23	1.23	0.00	0.00	1.25
Unmitigated											0.00	1.23	1.23	0.00	0.00	1.25
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 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											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Hearth											0.00	0.00	0.00	0.00	0.00	0.00
Landscaping											0.00	1.23	1.23	0.00	0.00	1.25
<b>Total</b>											<b>0.00</b>	<b>1.23</b>	<b>1.23</b>	<b>0.00</b>	<b>0.00</b>	<b>1.25</b>



## 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											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Hearth											0.00	0.00	0.00	0.00	0.00	0.00
Landscaping											0.00	1.23	1.23	0.00	0.00	1.25
<b>Total</b>											<b>0.00</b>	<b>1.23</b>	<b>1.23</b>	<b>0.00</b>	<b>0.00</b>	<b>1.25</b>

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Turf Reduction
- Use Water Efficient Irrigation System

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					10.56	0.16	0.00	15.20
Unmitigated					12.57	0.20	0.01	18.37
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Single Family Housing	6.5154 / 4.10754					12.57	0.20	0.01	18.37
<b>Total</b>						<b>12.57</b>	<b>0.20</b>	<b>0.01</b>	<b>18.37</b>

## 7.2 Water by Land Use

### Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Single Family Housing	5.21232 / 3.85698					10.56	0.16	0.00	15.20
<b>Total</b>						<b>10.56</b>	<b>0.16</b>	<b>0.00</b>	<b>15.20</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

#### Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					19.51	1.15	0.00	43.73
Unmitigated					19.51	1.15	0.00	43.73
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 8.2 Waste by Land Use

### Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Single Family Housing	96.12					19.51	1.15	0.00	43.73
<b>Total</b>						<b>19.51</b>	<b>1.15</b>	<b>0.00</b>	<b>43.73</b>

### Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Single Family Housing	96.12					19.51	1.15	0.00	43.73
<b>Total</b>						<b>19.51</b>	<b>1.15</b>	<b>0.00</b>	<b>43.73</b>

## 9.0 Vegetation

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**Galt Fairway Oaks - BAU YEAR 2010**  
**Sacramento Metropolitan AQMD Air District, Annual**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric
Single Family Housing	100	Dwelling Unit

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	3.5	<b>Utility Company</b>	Sacramento Municipal Utility District
<b>Climate Zone</b>	6	<b>Precipitation Freq (Days)</b>	58		

**1.3 User Entered Comments**

Project Characteristics - Note: Gas is anticipated to be provided by PG&E; electricity is anticipated to be provided by SMUD. Estimations in this analysis are based on SMUD factors only.

Land Use - Based on information from applicant.

Construction Phase - Based on URBEMIS model defaults.

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

## 2.0 Emissions Summary

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### 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					
2012											0.00	416.08	416.08	0.05	0.00	417.06
2013											0.00	102.02	102.02	0.01	0.00	102.25
<b>Total</b>											<b>0.00</b>	<b>518.10</b>	<b>518.10</b>	<b>0.06</b>	<b>0.00</b>	<b>519.31</b>

#### 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					
2012											0.00	416.08	416.08	0.05	0.00	417.06
2013											0.00	102.02	102.02	0.01	0.00	102.25
<b>Total</b>											<b>0.00</b>	<b>518.10</b>	<b>518.10</b>	<b>0.06</b>	<b>0.00</b>	<b>519.31</b>

## 2.2 Overall Operational

### Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.00	1.23	1.23	0.00	0.00	1.26
Energy											0.00	366.62	366.62	0.01	0.01	369.05
Mobile											0.00	1,313.43	1,313.43	0.08	0.00	1,315.21
Waste											19.51	0.00	19.51	1.15	0.00	43.73
Water											0.00	12.57	12.57	0.20	0.01	18.37
<b>Total</b>											<b>19.51</b>	<b>1,693.85</b>	<b>1,713.36</b>	<b>1.44</b>	<b>0.02</b>	<b>1,747.62</b>

## 2.2 Overall Operational

### Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.00	1.23	1.23	0.00	0.00	1.26
Energy											0.00	332.72	332.72	0.01	0.01	334.94
Mobile											0.00	1,313.43	1,313.43	0.08	0.00	1,315.21
Waste											19.51	0.00	19.51	1.15	0.00	43.73
Water											0.00	10.56	10.56	0.16	0.00	15.20
<b>Total</b>											<b>19.51</b>	<b>1,657.94</b>	<b>1,677.45</b>	<b>1.40</b>	<b>0.01</b>	<b>1,710.34</b>

## 3.0 Construction Detail

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### 3.1 Mitigation Measures Construction



### 3.2 Grading - 2012

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	152.62	152.62	0.02	0.00	152.95
<b>Total</b>											<b>0.00</b>	<b>152.62</b>	<b>152.62</b>	<b>0.02</b>	<b>0.00</b>	<b>152.95</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	2.63	2.63	0.00	0.00	2.64
<b>Total</b>											<b>0.00</b>	<b>2.63</b>	<b>2.63</b>	<b>0.00</b>	<b>0.00</b>	<b>2.64</b>

### 3.2 Grading - 2012

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	152.62	152.62	0.02	0.00	152.95
<b>Total</b>											<b>0.00</b>	<b>152.62</b>	<b>152.62</b>	<b>0.02</b>	<b>0.00</b>	<b>152.95</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	2.63	2.63	0.00	0.00	2.64
<b>Total</b>											<b>0.00</b>	<b>2.63</b>	<b>2.63</b>	<b>0.00</b>	<b>0.00</b>	<b>2.64</b>

### 3.3 Paving - 2012

#### 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											0.00	14.55	14.55	0.00	0.00	14.61
Paving											0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>											<b>0.00</b>	<b>14.55</b>	<b>14.55</b>	<b>0.00</b>	<b>0.00</b>	<b>14.61</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	0.70	0.70	0.00	0.00	0.70
<b>Total</b>											<b>0.00</b>	<b>0.70</b>	<b>0.70</b>	<b>0.00</b>	<b>0.00</b>	<b>0.70</b>

### 3.3 Paving - 2012

#### 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											0.00	14.55	14.55	0.00	0.00	14.61
Paving											0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>											<b>0.00</b>	<b>14.55</b>	<b>14.55</b>	<b>0.00</b>	<b>0.00</b>	<b>14.61</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	0.70	0.70	0.00	0.00	0.70
<b>Total</b>											<b>0.00</b>	<b>0.70</b>	<b>0.70</b>	<b>0.00</b>	<b>0.00</b>	<b>0.70</b>

### 3.4 Building Construction - 2012

#### 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											0.00	212.55	212.55	0.03	0.00	213.10
<b>Total</b>											<b>0.00</b>	<b>212.55</b>	<b>212.55</b>	<b>0.03</b>	<b>0.00</b>	<b>213.10</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	15.29	15.29	0.00	0.00	15.30
Worker											0.00	17.74	17.74	0.00	0.00	17.76
<b>Total</b>											<b>0.00</b>	<b>33.03</b>	<b>33.03</b>	<b>0.00</b>	<b>0.00</b>	<b>33.06</b>

### 3.4 Building Construction - 2012

#### 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											0.00	212.55	212.55	0.03	0.00	213.10
<b>Total</b>											<b>0.00</b>	<b>212.55</b>	<b>212.55</b>	<b>0.03</b>	<b>0.00</b>	<b>213.10</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	15.29	15.29	0.00	0.00	15.30
Worker											0.00	17.74	17.74	0.00	0.00	17.76
<b>Total</b>											<b>0.00</b>	<b>33.03</b>	<b>33.03</b>	<b>0.00</b>	<b>0.00</b>	<b>33.06</b>

### 3.4 Building Construction - 2013

#### 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											0.00	82.45	82.45	0.01	0.00	82.65
<b>Total</b>											<b>0.00</b>	<b>82.45</b>	<b>82.45</b>	<b>0.01</b>	<b>0.00</b>	<b>82.65</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	5.95	5.95	0.00	0.00	5.96
Worker											0.00	6.72	6.72	0.00	0.00	6.73
<b>Total</b>											<b>0.00</b>	<b>12.67</b>	<b>12.67</b>	<b>0.00</b>	<b>0.00</b>	<b>12.69</b>

### 3.4 Building Construction - 2013

#### 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											0.00	82.45	82.45	0.01	0.00	82.65
<b>Total</b>											<b>0.00</b>	<b>82.45</b>	<b>82.45</b>	<b>0.01</b>	<b>0.00</b>	<b>82.65</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	5.95	5.95	0.00	0.00	5.96
Worker											0.00	6.72	6.72	0.00	0.00	6.73
<b>Total</b>											<b>0.00</b>	<b>12.67</b>	<b>12.67</b>	<b>0.00</b>	<b>0.00</b>	<b>12.69</b>



### 3.5 Architectural Coating - 2013

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	5.61	5.61	0.00	0.00	5.63
<b>Total</b>											<b>0.00</b>	<b>5.61</b>	<b>5.61</b>	<b>0.00</b>	<b>0.00</b>	<b>5.63</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	1.28	1.28	0.00	0.00	1.28
<b>Total</b>											<b>0.00</b>	<b>1.28</b>	<b>1.28</b>	<b>0.00</b>	<b>0.00</b>	<b>1.28</b>

### 3.5 Architectural Coating - 2013

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Off-Road											0.00	5.61	5.61	0.00	0.00	5.63
<b>Total</b>											<b>0.00</b>	<b>5.61</b>	<b>5.61</b>	<b>0.00</b>	<b>0.00</b>	<b>5.63</b>

#### 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											0.00	0.00	0.00	0.00	0.00	0.00
Vendor											0.00	0.00	0.00	0.00	0.00	0.00
Worker											0.00	1.28	1.28	0.00	0.00	1.28
<b>Total</b>											<b>0.00</b>	<b>1.28</b>	<b>1.28</b>	<b>0.00</b>	<b>0.00</b>	<b>1.28</b>

### 4.0 Mobile Detail

#### 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.00	1,313.43	1,313.43	0.08	0.00	1,315.21
Unmitigated											0.00	1,313.43	1,313.43	0.08	0.00	1,315.21
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

#### 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	957.00	1,008.00	877.00	2,632,813	2,632,813
<b>Total</b>	<b>957.00</b>	<b>1,008.00</b>	<b>877.00</b>	<b>2,632,813</b>	<b>2,632,813</b>

#### 4.3 Trip Type Information

Land Use	Miles			Trip %		
	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
Single Family Housing	10.80	7.30	7.50	32.90	18.00	49.10

### 5.0 Energy Detail

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### 5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive 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											0.00	163.07	163.07	0.01	0.00	164.25
Electricity Unmitigated											0.00	172.64	172.64	0.01	0.00	173.89
NaturalGas Mitigated											0.00	169.65	169.65	0.00	0.00	170.68
NaturalGas Unmitigated											0.00	193.98	193.98	0.00	0.00	195.16
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 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	tons/yr										MT/yr					
Single Family Housing	3.63497e+006											0.00	193.98	193.98	0.00	0.00	195.16
<b>Total</b>												<b>0.00</b>	<b>193.98</b>	<b>193.98</b>	<b>0.00</b>	<b>0.00</b>	<b>195.16</b>

### 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	tons/yr										MT/yr					
Single Family Housing	3.1791e+006											0.00	169.65	169.65	0.00	0.00	170.68
<b>Total</b>												<b>0.00</b>	<b>169.65</b>	<b>169.65</b>	<b>0.00</b>	<b>0.00</b>	<b>170.68</b>

### 5.3 Energy by Land Use - Electricity

#### Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Single Family Housing	685459					172.64	0.01	0.00	173.89
<b>Total</b>						<b>172.64</b>	<b>0.01</b>	<b>0.00</b>	<b>173.89</b>

#### Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Single Family Housing	647474					163.07	0.01	0.00	164.25
<b>Total</b>						<b>163.07</b>	<b>0.01</b>	<b>0.00</b>	<b>164.25</b>

## 6.0 Area Detail

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### 6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.00	1.23	1.23	0.00	0.00	1.26
Unmitigated											0.00	1.23	1.23	0.00	0.00	1.26
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 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											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Hearth											0.00	0.00	0.00	0.00	0.00	0.00
Landscaping											0.00	1.23	1.23	0.00	0.00	1.26
<b>Total</b>											<b>0.00</b>	<b>1.23</b>	<b>1.23</b>	<b>0.00</b>	<b>0.00</b>	<b>1.26</b>

## 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											0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products											0.00	0.00	0.00	0.00	0.00	0.00
Hearth											0.00	0.00	0.00	0.00	0.00	0.00
Landscaping											0.00	1.23	1.23	0.00	0.00	1.26
<b>Total</b>											<b>0.00</b>	<b>1.23</b>	<b>1.23</b>	<b>0.00</b>	<b>0.00</b>	<b>1.26</b>

## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Turf Reduction
- Use Water Efficient Irrigation System



	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					10.56	0.16	0.00	15.20
Unmitigated					12.57	0.20	0.01	18.37
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 7.2 Water by Land Use

### Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Single Family Housing	6.5154 / 4.10754					12.57	0.20	0.01	18.37
<b>Total</b>						<b>12.57</b>	<b>0.20</b>	<b>0.01</b>	<b>18.37</b>

## 7.2 Water by Land Use

### Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Single Family Housing	5.21232 / 3.85698					10.56	0.16	0.00	15.20
<b>Total</b>						<b>10.56</b>	<b>0.16</b>	<b>0.00</b>	<b>15.20</b>

## 8.0 Waste Detail

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### 8.1 Mitigation Measures Waste

#### Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					19.51	1.15	0.00	43.73
Unmitigated					19.51	1.15	0.00	43.73
<b>Total</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

## 8.2 Waste by Land Use

### Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Single Family Housing	96.12					19.51	1.15	0.00	43.73
<b>Total</b>						<b>19.51</b>	<b>1.15</b>	<b>0.00</b>	<b>43.73</b>

### Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Single Family Housing	96.12					19.51	1.15	0.00	43.73
<b>Total</b>						<b>19.51</b>	<b>1.15</b>	<b>0.00</b>	<b>43.73</b>

## 9.0 Vegetation

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