Mestre Greve Associates
Division of Landrum & Brown

21 January 2015

Ms. Dana Privitt, AICP
Kimley-Horn
765 The City Drive, Suite 200
Orange, CA 92868

Subject: Newport Executive Center Air Quality and GHG Emissions Modeling Results (Report #561901-00)

Dear Dana,

The purpose of this letter is to present the results of the air pollutant and GHG emissions modeling for the proposed Newport Executive Center medical office project in the City of Newport Beach. The emissions were calculated using SCAQMD's CalEEMod (version 2013.2.2) and are compared to SCAQMD's recommended significance thresholds. The results show that the emissions associated with the proposed project will be less than the SCAQMD significance thresholds. In addition, we discuss the fact that the Proposed Project will not potentially result in any off-site air quality hot-spot impacts.

Project Description

The project proposes construction of approximately 64,000 square feet of medical office building in two two-story buildings on an approximate 4.10-acre parcel located on the southeast side of Birch Street just north of Mesa Drive in the City of Newport Beach.

There are currently two developed residential properties on the north side of the Project Site while the southern portion of the Site is vacant. The existing structures on the residential properties will be demolished to make way for the Project.

There are existing office buildings located directly north of the Site and to the west across Birch Street and residential uses located adjacent to the Project Site to the east and south. Other than the residential uses, there are no other sensitive receptors in the immediate project area.

The project applicant estimates that the earliest construction would start is July 2015 and take approximately one year to complete. The new building construction will be concrete tilt-up. The Grading Plan for the Project shows that there will be approximately 10,000 CY of cut and 4,300 CY of fill, with 5,700 CY of material exported from the site. The plans show that the parking lot will take up approximately 2.4 acres of the site.

Significance Thresholds

Regional Criteria Air Pollutants

In their "1993 CEQA Air Quality Handbook", the SCAQMD has established significance thresholds to assess the impact of project related air pollutant emissions. Table 1 presents these significance thresholds. There are separate thresholds for short-term construction and long-term operational emissions. A project with daily emission rates below these thresholds are considered to have a less than significant effect on regional air quality. It should be noted the thresholds recommended by the SCAQMD are very low and subject to controversy. It is up to the individual lead agencies to determine if the SCAQMD thresholds are appropriate for their projects.

Table 1
SCAQMD Regional Pollutant Emission Thresholds of Significance

	Regional Significance Threshold (lbs/day)					
	CO	VOC	NO_x	PM_{10}	$PM_{2.5}$	SO_x
Construction	550	75	100	150	55	150
Operation	550	55	55	150	55	150

Local Criteria Air Pollutants

As part of the SCAQMD's environmental justice program, attention was focused on localized effects of air quality. In accordance with Governing Board direction, SCAQMD staff developed localized significance threshold (LST) methodology and mass rate look-up tables by source receptor area (SRA) that can be used to determine whether or not a project may generate significant adverse localized air quality impacts. The LST's represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area. The LST methodology is described in "Final Localized Significance Threshold Methodology" dated June 2003 by the SCAQMD and is available at the SCAQMD website (http://aqmd.gov/ceqa/handbook/LST/LST.html).

The LST mass rate look-up tables provided by the SCAQMD allow one to determine if the daily emissions for proposed construction or operational activities could result in significant localized air quality impacts. If the calculated on-site emissions for the proposed construction or operational activities are below the LST emission levels found on the LST mass rate look-up table, then the proposed construction or operation activity will not result in a significant impact on local air quality.

The LST mass rate look-up tables are applicable to the following pollutants only: oxides of nitrogen (NO_X), carbon monoxide (CO), respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$). LST's are derived based on the location of the activity (i.e., the source/receptor area); the emission rates of NO_X, CO, PM_{10}, and $PM_{2.5}$; and the distance to the nearest exposed individual. This distance is based upon the uses around the project and the Ambient Air Quality Standard (AAQS) averaging times for the pollutants of concern. The shortest AAQS averaging time for CO and NO_2 are for one-hour and the nearest exposed individual is the location where a person could be expected to remain for 1-hour. The shortest averaging time for the PM_{10} and $PM_{2.5}$ AAQS is 24 hours and the nearest exposed individual is the location where a person could be expected to remain for 24-hours. Typically, this is the nearest residential use.

The LST methodology presents mass emission rates for each SRA, project sizes of 1, 2, and

5 acres, and nearest receptor distances of 25, 50, 100, 200, and 500 meters. For project sizes between the values given, or with receptors at distances between the given distances, the methodology uses linear interpolation to determine the thresholds. If receptors are within 25 meters of the site, the methodology document says that the threshold for the 25-meter distance should be used.

The project is located in SRA 18. The nearest residential uses are located adjacent to the proposed project to the east and south. Therefore, per the LST methodology a 25-meter (82-foot) receptor distance was used was used to establish the threshold for all pollutants. The project site is approximately 4.10 acres. This information was used to determine the localized significance thresholds applicable to the project.

The LST thresholds specific for the proposed project are presented in Table 2. A project with on-site daily emission rates below these thresholds is considered to have a less than significant effect on local air quality.

Table 2
Localized Significance Thresholds

	Localized Significance Threshold (lbs/day)			
	CO	NO_x	PM_{10}	$PM_{2.5}$
Construction	1,486.3	177.2	11.9	7.8
Operation	1,486.3	177.2	3.4	2.0

In addition, the project would cause a significant local air quality impact, often referred to as a hot-spot, if the project results in increased traffic volumes and/or decreases in Level of Service (LOS) that would result in an exceedance of the AAQS at a sensitive receptor adjacent to a roadway or intersection. If future air pollutant concentrations with the project are projected to exceed the NAAQS, then the project will have a significant local air quality impact. This impact is assessed under the Hot Spot Impacts Heading.

Greenhouse Gas Emissions

On December 5, 2008, the South Coast Air Quality Management District (SCAQMD) adopted GHG significance threshold for Stationary Sources, Rules and Plans where the SCAQMD is lead agency. The threshold uses a tiered approach. The project is compared with the requirements of each tier sequentially and would not to result in a significant impact if it complies with any tier. Tier 1 excludes projects that are specifically exempt from SB97 from resulting in a significant impact. Tier 2 excludes projects that are consistent with a GHG reduction plan that has a certified final CEQA document and complies with AB 32 GHG reduction goals.

Tier 3 excludes projects with annual emissions lower than a screening threshold. For industrial stationary source projects, the SCAQMD adopted a screening threshold of 10,000 MT CO_2EQ/year. This threshold was selected to capture 90% of the GHG emissions from these types of projects where the combustion of natural gas is the primary source of GHG emissions. SCAQMD concluded that projects with emissions less than the screening threshold would not result in a significant cumulative impact.

Tier 4 consists of three decision tree options. Under the first option, the project would be excluded if design features and/or mitigation measures resulted in emissions 30 percent lower than business as usual emissions. Under the second option, the project would be excluded if it had early compliance with AB 32 through early implementation of CARB's Scoping Plan measures. Under the third option, project would be excluded if it met sector based performance standards. However, the specifics of the Tier 4 compliance options were not adopted by the SCAQMD board to allow further time to develop the options and coordinate with CARB's GHG significance threshold development efforts. Tier 5 would exclude projects that implement offsite mitigation (GHG reduction projects) or purchase offsets to reduce GHG emission impacts to less than the proposed screening level

While not adopted by the SCAQMD Board, the guidance document prepared for the stationary source threshold (SCAQMD 2008b) also suggested the same tiered approach for residential and commercial projects with a 3,000 MTCO_2EQ/year screening threshold. However, at the time of adoption of the industrial stationary source threshold the SCAQMD felt additional analysis was required along with coordination with CARB's GHG significance threshold development efforts.

At the most recent SCAQMD GHG working group meeting (November, 2009), SCAQMD staff presented two options for screening thresholds for residential and commercial projects. The first option would have different thresholds for specific land uses. The proposed threshold for residential projects is 3,500 MT CO_2EQ/year, the commercial threshold is 1,400 MT CO_2EQ/year, and the mixed-use threshold is 3,000 MT CO_2EQ/year. The second option would apply the 3,000 MT CO_2EQ/year screening threshold for all commercial/residential projects. Lead agencies would be able to select either option. These thresholds are based on capturing 90% of the emissions from projects and requiring them to comply with the higher tiers of the threshold (i.e., performance requirements or GHG reductions outside of the project) to not result in a significant impact.

Staff also presented updated for compliance options for Tier 4 of the significance thresholds. The first option would be a reduction of 23.9% in GHG emissions over the base case. This percentage reduction represents the land use sector portion of the CARB Scoping Plan's overall reduction of 28%. This target would be updated as the AB 32 Scoping Plan is revised. The base case scenario for this reduction still needs to be defined. Residual emissions would need to be less than 25,000 MT CO_2EQ/year to comply with the option. Staff proposed efficiency targets for the third option of 4.6 MT CO_2EQ/year per service population (population employment) for project level analysis and 6.6 MT CO_2EQ/year for plan level analyses. For project level analyses, residual emissions would need to be less than 25,000 MT CO_2EQ/year to comply with this option.

For this project the 3,000 MT CO_2EQ per year screening threshold will be used for the significance threshold for this project. The methodology recommends that total construction emissions be amortized over a 30-year period or the project's expected lifetime if it is less than 30 years. The SCAQMD's working group has not set a date for finalizing the recommendations.

Modeling Assumptions

The CalEEMod model was set to calculate operational, long-term, emissions for a 64,100 square feet of medical office building on 1.7 acres and a 2.4-acre parking lot. The attached worksheets present the specific information that was used to model the operational emissions from the Project. CalEEMod defaults assumptions were used to calculate the operational emissions.

The data used to estimate the emissions resulting from construction of the Project were based on the information received from the project applicant and CalEEMod default assumptions adjusted for the specifics of the project. The construction was assumed to begin at the earliest potential date, the first week of July 2015. The date of construction is relevant to the modeling because it determines the mobile source emission factors used to determine emissions from off-road and on-road vehicles. These emission factors, taken from CARB's EMFAC and OFFROAD models are representative of the fleet average vehicle mix estimated by those models. In future years, older, more polluting, vehicles are anticipated to be replaced by new equipment that comply with stringent existing and future emissions regulations. This results in a reduction in the fleet average emission factor in future years. Therefore, assuming construction starts at the earliest possible date results in a higher estimate of emissions than if a later date were used.

Demolition is anticipated to take approximately one week to complete. There is approximately 13,150 square feet of existing buildings on site that will be demolished and removed with the project. CalEEMod estimates that it will take 60 truck trips to remove the demolition debris. A 20-mile trip length was assumed for these truck trips. On site equipment used during the demolition was estimated to include a concrete saw, an excavator, and a rubber tired dozer. Site preparation is anticipated to take approximately two weeks and require one scraper and one tractor/loader/backhoe. Other than noted above, CalEEMod default assumptions were used for the Demolition and Site Preparation emissions calculations.

Grading is anticipated to take approximately three weeks and require one grader, one scraper, one excavator, and three tractor/loader/backhoe. The 5,700 CY of material exported during grading was estimated by CalEEMod to take 713 truck trips. However, this assumes 8 CY haul trucks. This is the smallest haul truck used. Haul truck capacities range from approximately 8 CY to 20 CY. For this project, 12 CY or larger haul trucks would be expected to be utilized. Therefore, the modeling assumed 475 truck trips with a 20-mile trip length. Other than noted above, CalEEMod default assumptions were used for the Grading emissions calculations.

Building construction is anticipated to take approximately 44 weeks. Equipment used during construction is anticipated be one crane, three forklifts, one tractor/loader/backhoes, on generator set, and one welder. Paving is anticipated to take two weeks and use one cement mixer, one paver, one paving equipment, one roller, and one tractor loader backhoe. Painting is anticipated to take six weeks and use one air compressor. Exterior and interior shell painting will occur with construction of the building with the majority of interior painting occurring when tenant improvements are performed. Other than as noted above, CalEEMod defaults were used for the Building Construction, Paving, and Painting phases.

Modeling Results

Criteria Pollutant Emissions

Tables 3 and 4 present the results of the criteria pollutant emissions modeling for construction activities. Table 3 presents the total construction emissions, on-site and off-site, which are compared with the regional significance thresholds presented previously in Table 1. Table 4 presents the on-site construction emissions that are compared with the local significance thresholds presented in Table 2. These tables show that the construction emissions will be less than the significance thresholds. Therefore, construction of the project is not anticipated to result in a significant air quality impact.

Table 3
Regional Construction Emissions

	Daily Emissions (lbs/day)					
Activity	**CO**	**NO_x**	**VOC**	**PM_{10}**	**$PM_{2.5}$**	**SO_x**
Individual Activities						
Demolition	21.7	28.1	2.7	2.7	1.5	0.03
Site Preparation	15.1	3.5	1.9	4.7	2.9	0.02
Grading	34.9	36.0	4.7	4.7	3.3	0.06
Building Construction (2015)	25.7	33.1	4.2	3.1	2.3	0.04
Building Construction (2016)	24.9	31.2	3.9	2.9	2.1	0.04
Painting	2.6	2.4	52.3	0.3	0.2	0.00
Paving	10.0	13.1	2.0	1.0	0.8	0.02
Concurrent Activities						
Construction, Paving & Painting	37.5	46.8	58.1	4.3	3.2	0.1
Significance Threshold	***550***	***100***	***75***	***150***	***55***	***150***
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

Table 4
On-Site Construction Emissions

	Daily Emissions (lbs/day)			
Activity	**CO**	**NO_x**	**PM_{10}**	**$PM_{2.5}$**
Individual Activities				
Demolition	18.3	24.3	2.3	1.4
Site Preparation	14.0	3.4	4.6	2.9
Grading	27.5	26.3	3.8	2.9
Building Construction (2015)	19.0	30.1	2.2	2.0
Building Construction (2016)	18.7	28.6	2.0	1.9
Painting	1.9	2.4	0.2	0.2
Painting	9.0	13.1	0.8	0.7
Concurrent Activities				
Construction, Paving & Painting	29.6	44.0	3.0	2.8
Significance Threshold	***1,486.3***	***177.2***	***10.2***	***3.1***
Exceed Threshold?	*No*	*No*	*No*	*No*

Tables 5 and 6 present the results of the criteria pollutant emissions modeling for long-term operation of the Project. Table 5 presents the total operational emissions, on-site and off-site, which are compared with the regional significance thresholds presented previously in Table 1. Table 6 presents the on-site operational emissions that are compared with the local significance thresholds presented in Table 2. These tables show that the long-term operational emissions will be less than the significance thresholds. Therefore, operation of the project will not result in a significant air quality impact.

Table 5
Regional Operational Emissions

	Daily Emissions (lbs/day)					
Activity	**CO**	**VOC**	**NO_x**	**PM_{10}**	**$PM_{2.5}$**	**SO_x**
Vehicular Emissions	73.4	7.0	15.0	12.9	3.6	0.18
Natural Gas Combustion	0.1	0.0	0.2	0.0	0.0	0.00
Landscaping	0.0	0.0	0.0	0.0	0.0	0.00
Consumer Products	0.0	3.3	0.0	0.0	0.0	0.00
Architectural Coatings	0.0	0.4	0.0	0.0	0.0	0.00
Total Emissions	**73.6**	**10.8**	**15.1**	**12.9**	**3.6**	**0.2**
Significance Threshold	***550***	***55***	***55***	***150***	***55***	***150***
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

Table 6
On-Site Operational Emissions

	Daily Emissions (lbs/day)			
Activity	**CO**	**NO_x**	**PM_{10}**	**$PM_{2.5}$**
Vehicular Emissions	5.2	1.05	0.91	0.25
Natural Gas Combustion	0.1	0.16	0.01	0.01
Landscaping	0.0	0.00	0.00	0.00
Consumer Products	0.0	0.00	0.00	0.00
Architectural Coatings	0.0	0.00	0.00	0.00
Total Emissions	**5.3**	**1.22**	**0.92**	**0.26**
Significance Threshold	***1,486.3***	***177.2***	***3.4***	***2.0***
Exceed Threshold?	*No*	*No*	*No*	*No*

GHG Emissions

Table 7 presents the results of the construction GHG emissions calculations. The total metric tons (MT) of CO_2, CH_4, and N_2O emissions are presented in along with the CO_2 equivalent (CO_2EQ) emissions. The CO_2EQ emissions are equal to the sum of the individual pollutant emissions times their Global Warming Potential (GWP) which is a measure of the warming potential of the gas compared to CO_2 which makes the GWP for CO_2 to be 1. The GWP of CH_4 is 21 and the GWP of N_2O is 310. As suggested by the SCAQMD significance thresholds, construction emissions are amortized over a 30-year period and then added to the annual operational emissions. The total annual emissions, operational and amortized construction, are compared with the screening threshold in Table 8.

Table 7
Construction GHG Emissions

	Total Emissions (MT/Year)			
Activity	**CO_2**	**CH_4**	**N_2O**	**CO_2EQ**
Demolition	7.1	0.00	0.00	7.2
Site Preparation	9.5	0.00	0.00	9.6
Grading	42.9	0.01	0.00	43.0
Building Construction (2015)	171.6	0.03	0.00	172.2
Building Construction (2016)	227.0	0.04	0.00	227.9
Painting	5.8	0.00	0.00	5.8
Paving	7.1	0.00	0.00	7.1
Total Emissions	**471.0**	**0.08**	**0.00**	**472.8**
Project Life Average Annual Emissions*	***15.7***	***0.00***	***0.00***	***15.8***

*Based on 30 Year Project Life Per SCAQMD Significance Thresholds

Table 8 presents the results of the operational GHG emissions calculations. As with the construction GHG emissions, the annual metric tons (MT) of CO_2, CH_4, and N_2O are presented along with the CO_2EQ emissions calculated from these values. Table 8 shows the total annual GHG emissions expected to result from the project is 2,587 MT. This is less than the SCAQMD's 3,000 MT per year screening threshold. Therefore, the GHG emissions due to the project are not considered significant.

Table 8
Operational GHG Emissions

	Annual Emissions (MT/yr)			
Activity	**CO_2**	**CH_4**	**N_20**	**CO_2EQ**
Vehicular Emissions	1,864.0	0.08	0.00	1,865.6
Natural Gas Combustion	32.8	0.00	0.00	33.0
Electricity	312.3	0.01	0.00	313.5
Landscaping	0.0	0.00	0.00	0.0
Consumer Products	0.0	0.00	0.00	0.0
Architectural Coatings	0.0	0.00	0.00	0.0
Municipal Waste	140.3	8.29	0.00	314.4
Water	37.3	0.26	0.01	44.9
Operational Emissions	2,386.7	8.65	0.01	2,571.4
Construction Emissions	15.7	0.00	0.00	15.8
Total Project Emissions	2,402.4	8.65	0.01	2,587.2
Screening Threshold:				***3,000***
Exceed Threshold?				***No***

Hot Spot Impacts

Increased traffic volumes due to the project result in increased pollutant emissions near the roads utilized by this traffic, which can cause pollutant levels to exceed the ambient air quality standards. Carbon monoxide (CO) and particulates (PM_{10} and $PM_{2.5}$) are the pollutants of major concern along roadways.

CO modeling was performed for the 2003 AQMP to demonstrate attainment of the federal CO standards in the South Coast Air Basin (SCAB). Modeling was performed for four intersections considered the worst-case intersections in the SCAB. These intersections included; Wilshire at Veteran, Sunset at Highland, La Cienega at Century, and Long Beach at Imperial. Table 4-10 of Appendix V of the AQMP shows that modeled 1-hour average concentrations at these four intersections for 2002 conditions are actually below the 8-hour standard of 9 ppm. The highest modeled 1-hour average concentration of 4.6 ppm occurred at the Wilshire and Veteran intersection. Generally, only intersections operating at LOS of D or worse are considered to have the potential to cause CO concentrations to exceed the state ambient air quality standards of 20 ppm for a 1-hour averaging time and 9 ppm for an 8-hour averaging time.

Roads with substantial diesel truck volumes have the potential to result in particulate hot spots. The FHWA has published guidance on performing a qualitative analysis of particulate hot spots because at this time a reliable and accurate methodology for quantitatively assessing particulate hotspots has not been established. The FHWA guidance considers a road with an average daily diesel truck volume of 10,000 or less does not have the potential to result in a hot spot.

The traffic study prepared for the Project, "Traffic Impact Analysis for The Proposed Newport Executive Center in the City of Newport Beach" by Kimley Horn, dated November 2014 analyzed traffic impacts at 15 intersections potentially impacted by the Project. This included an estimate of the traffic volumes and the LOS of these intersections with and without the Project. This data shows that no intersections are anticipated to operate at LOS of D or worse. Therefore, no exceedances of the CO AAQS would be anticipated near these intersections. None of the roads examined by the traffic study are projected to have truck volumes approaching the 10,000 per day required for a potential PM hotspot.

The project is not anticipated to cause or significantly contribute to any CO or particulate matter concentrations exceeding the AAQS along roadways serving the project. Therefore, the Project will not result in a significant local air quality impact along roadways serving the project.

Conclusion

Based on the CalEEMod emissions modeling, emissions of criteria pollutants associated with the Project will not exceed the SCAQMD local or regional significance thresholds during construction and operation. Further, the modeling shows that annual GHG emissions will not exceed the SCAQMD's recommended screening threshold for GHG Impacts. Finally, the traffic data for the Project indicates that no off-site exceedances of the AAQS are anticipated to result along roads or intersections carrying project related traffic. Therefore, the Project is not anticipated to result in any significant air quality or GHG impacts.

Note that due to the size of the CalEEMod output files, they have not been attached to this letter. However, we have provided you with a .zip file with the CalEEMod input and output files that can be provided to whomever wishes to review the data.

If you have any questions or need any other information, please do not hesitate to call.

Sincerely,
Mestre Greve Associates
Division of Landrum and Brown

Matthew B. Jones, P.E.
Project Manager

Attachments: CalEEMod Operational Emissions Input Assumptions

CalEEMod Input Summary - Land Use & Vehicular Trips

Project Characteristics

File Name:	Newport Exec Cntr.xls
Project:	Newport Exec Center
Year:	2016
Size:	4.1 Acres
Population:	0
Location:	ORA
Climate Zone:	8
Urbanization:	Urban
Wind Speed:	2.2 m/s
Precipitation:	30 days/year
Utility:	Southern California Edison
CO_2:	630.89 lb/MWhr
CH_4:	0.029 lb/MWhr
N_2O:	0.006 lb/MWhr

Land Use Information

Category:	Commercial	Parking
Land Use:	Medical Office Building	Parking Lot
Units:	64 1000sqft	2.39 Acre
Lot Size:	1.7 Acres	2.4 Acres
Bulding Size	64,000 sq. ft.	104,108 sq. ft.
Population:	0	0

Vehicle Miles Traveled

Daily	**VMT**	**VMT**	**Total**
Home-Work:	0	0	0
Home-Shop	0	0	0
Home-Other	0	0	0
Comm-Cust:	5,103	0	5,103
Comm-Work:	5,802	0	5,802
Comm-NonWork:	1,550	0	1,550
Total:	**12,454**	**0**	**12,454**

Annual	**4,545,867**	**0**	4,545,867
CalEEMod Out	4,533,413	0	4,533,413
Δ	12,454	0	12,454
%Δ	0.27%	#DIV/0!	0.27%

CalEEMod Input Summary - Land Use & Vehicular Trips

File Name: Newport Exec Cntr.xls
Project: Newport Exec Center

Trip Generation

Trip Rate			
Weekday:	36.13 / 1000sqft	0 / Acre	
Saturday:	8.96 / 1000sqft	0 / Acre	
Sunday:	1.55 / 1000sqft	0 / Acre	
Daily Trips:			**Total**
Weekday:	2,312	0	2,312
Saturday:	573	0	573
Sunday:	99	0	99
Average:	1,748	0	1,748

Trip Type

Trip Purpose		
Primary:	60%	0%
Diverted:	30%	0%
Pass By:	10%	0%
Origin-Destination		
Home-Work:	0%	0%
Home-School:	0%	0%
Home-Office:	0%	0%
Comm-Cust:	51%	0%
Comm-Work:	30%	0%
Comm-NonWork:	19%	0%

Trip Length

Trip Length Basis		
Home-Work:	0.00	0.00
Home-School:	0.00	0.00
Home-Office	0.00	0.00
Comm-Cust	8.40	8.40
Comm-Work	16.60	16.60
Comm-NonWork	6.90	6.90
Modeled Trip Length		
Home-Work:	0.01	0.00
Home-School:	0.01	0.00
Home-Office:	0.01	0.00
Comm-Cust:	5.68	0.00
Comm-Work:	11.22	0.00
Comm-NonWork:	4.67	0.00

CalEEMod Input Summary - Operational Emissions

File Name: Newport Exec Cntr.xls

Project: Newport Exec Center

Electicity and Natural Gas

	Medical Office Building	Parking Lot
Electrical Use (kWhr/size/year)		
Title 24:	6	0
Non-Title 24:	5	0
Lighting:	5	1
Total:	**16**	**1**
Natural Gas (kBTU/size/year)		
Title 24:	9	0
Non-Title 24:	1	0
Total:	**10**	**0**

Water & Wastewater

	Medical Office Building	Parking Lot
Water Use (gal/yr)		
Indoor:	8,030,754	0
Outdoor:	1,529,668	0
Total:	**9,560,422**	**0**
Electricity Intensity (kWhr/Mgal)		
Supply:	9,727	9,727
Supply Treat:	111	111
Distribute:	1,272	1,272
Waste Treat:	1,911	1,911
Total:	**11,638**	**11,638**
Waste Disposal		
Septic Tank:	10.3%	10.3%
Aerobic:	87.5%	87.5%
Anerobic		
Lagoon:	*2.2%*	*2.2%*
w/ Combust:	*100.0%*	*100.0%*
w/ Cogen:	*0.0%*	*0.0%*

Architectural Coatings

	Interior	Exterior
Residential		
Size:	0 sq. ft.	0 sq. ft.
Rate:	50 g/L	100 g/L
Commercial		
Square Feet:	100,685 sq. ft.	33,562 sq. ft.
Emission Factor:	250 g/L	250 g/L
	Reapplication Rate	**10.0%**

CalEEMod Input Summary - Operational Emissions

File Name: Newport Exec Cntr.xls

Project: Newport Exec Center

Fireplace

	Medical Office Building	Parking Lot
Number of Units With:		
Wood:	0	0
Gas:	0	0
Propane:	0	0
None:	0	0
Use		
Hrs/day:	0.00	0.00
Days/Year:	0	0
Wood Mass:	0	0

Wood Stoves

	Medical Office Building	Parking Lot
Number of Units With:		
Conventional:	0	0
Catalytic:	0	0
Non-Catalytic:	0	0
Pellet:	0	0
Use		
Days/Year:	0.00	0.00
Wood Mass:	0	0

Consumer Products

Emission Factor:	1.98E-05 g VOC/sqr ft

Landscape Equipment

Snow Days	Summer Days
0	250

CalEEMod Input Summary - Operational Mitigation

File Newport Exec Cntr.xls

Project: Newport Exec Center

Land Use Mitigation

Project Setting	
0	
Land Use	
--	**Increased Density**
--	DU Per Acre
--	Jobs/Acre
--	**Increase Diversity**
--	**Improve Walkability**
--	Intersections/Square Mile
--	**Improve Destination Accessibility**
--	Dist. To Downtown Job Center (mi)
--	**Increase Transit Accessibility**
--	Dist. To Transit Station (mi)
--	**Integrate Below Market Rate Housing**
--	# of Units Below Market Rate
Neighborhood Enhancements	
--	**Improve Pedestrian Network**
--	
--	**Provide Traffic Calming Measures**
--	% of Streets With Improvement
--	% Intersections With Improvement
--	**Implement NEV Network**
Parking Policy/Pricing	
	Limit Parking Supply
--	% Reduction in Spaces
--	**Unbundle Parking Costs**
--	Monthly Parking Cost ($)
--	**On-Street Market Pricing**
--	% Increase in Price
Transit Improvement	
--	**Provide BRT System**
--	% Lines BRT
--	**Expand Transit Network**
--	% Increase in Transit Coverage
--	**Increase Transit Frequency**
--	Implementation Level
--	% Reduction in Headway

Energy Mitigation

Building Energy	
--	**Exceed Title 24**
--	% Improvement
--	**Install Energy Efficient Lighting**
--	% Improvement
Alternative Energy	
--	**Onsite Renewable Energy**
--	Total kWH
--	kWH Generated
--	% of Use Generated
--	% of Use

Appliance Mitigation

30%	Clothes Washer
15%	Dish Washer
50%	Fan
15%	Refrigerator

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Commute Mitigation

Commute Trips	
--	**Implement Trip Reduction Program**
--	% Employees Eligible
--	Type
--	**Implement Transit Subsidy**
--	% Employees Eligible
--	Daily Subsidy Amount($)
--	**Implement Employee Parking "Cash Out"**
--	% Employees Eligible
--	**Workplace Parking Charge**
--	% Employees Eligible
--	Daily Parking Charge ($)
--	**Encourage Telecommute & Alt Schedules**
--	% Employees Work 9/80
--	% Employees Work 4/40
--	% Employees Telecommute 1.5 days
--	**Market Commute Trip Reduction Program**
--	% Employees Eligible
--	**Employee Vanpool/Shuttle**
--	% Employees Eligible
--	% Vanpool Mode Share
--	**Provide Ride Sharing Program**
--	% Employees Eligible
School Trips	
--	**Implement School Bus Program**
--	% Families Using

Water Mitigation

Water Conservation Strategy	
--	**Apply Water Conservation Strategy**
--	% Reduction Indoor
--	% Reduction Outdoor
Water Supply	
--	**Use Reclaimed Water**
--	% Indoor Water use
--	% Outdoor Water Use
--	**Use Grey Water**
--	% Indoor Water use
--	% Outdoor Water Use
Indoor Water Use	
--	**Install Low Flow Bathroom Faucet**
--	% Reduction in Flow
--	**Install Low Flow Kitchen Faucet**
--	% Reduction in Flow
--	**Install Low Flow Toilet Faucet**
--	% Reduction in Flow
--	**Install Low Flow Shower**
--	% Reduction in Flow
Outdoor Water Use	
--	**Turf Reduction**
--	Turf Reduction Area (acres)
--	% Reduction in Turf
--	**Use Water Efficient Irrigation Systems**
--	% Reduction
--	**Water Efficient Landscape**
--	MAWA (gal/yr)
--	ETWU (gal/yr)

Municipal Waste Mitigation

--	**Institute Recycling and Composting Services**
--	% Reduction in Waste Disposed