APPENDIX A

65th Hampton Inn and Suites

Sacramento Metropolitan AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	257.00	Space	2.31	102,800.00	0
Hotel	216.00	Room	2.98	129,930.00	0
Strip Mall	10.00	1000sqft	0.23	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2016
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Based off Jackson's report, Sacramento zoning code, and information from the project applicant

Construction Phase - Information provided by the applicant.
The contruction data is found under the Basic Construction Information Needs

Road Dust -

Land Use Change -

Sequestration -

Area Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	138.00
tblConstructionPhase	NumDays	230.00	138.00
tblConstructionPhase	NumDays	20.00	8.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	PhaseEndDate	7/27/2016	1/29/2016
tblConstructionPhase	PhaseEndDate	1/12/2016	1/15/2016
tblConstructionPhase	PhaseEndDate	7/1/2015	7/2/2015
tblConstructionPhase	PhaseStartDate	1/16/2016	7/22/2015
tblConstructionPhase	PhaseStartDate	7/3/2015	7/8/2015
tblConstructionPhase	PhaseStartDate	6/13/2015	6/15/2015
tblConstructionPhase	PhaseStartDate	6/25/2015	6/26/2015
tblGrading	AcresOfGrading	4.00	10.00
tblLandUse	LandUseSquareFeet	313,632.00	129,930.00
tblLandUse	LotAcreage	7.20	2.98
tblProjectCharacteristics	OperationalYear	2014	2016

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2015	1.2194	2.8476	2.4909	3.4600e-003	0.1913	0.1801	0.3714	0.0828	0.1695	0.2522						
2016	0.1794	0.2034	0.1899	2.9000e-004	6.8800e-003	0.0132	0.0201	1.8500e-003	0.0125	0.0144						
Total	**1.3988**	**3.0510**	**2.6808**	**3.7500e-003**	**0.1982**	**0.1933**	**0.3915**	**0.0846**	**0.1820**	**0.2666**						

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					
2015	1.2194	2.8476	2.4909	3.4600e-003	0.1913	0.1801	0.3714	0.0828	0.1695	0.2522						
2016	0.1794	0.2034	0.1899	2.9000e-004	6.8800e-003	0.0132	0.0201	1.8500e-003	0.0125	0.0144						
Total	**1.3988**	**3.0510**	**2.6808**	**3.7500e-003**	**0.1982**	**0.1933**	**0.3915**	**0.0846**	**0.1820**	**0.2666**						

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.0480	6.0000e-005	6.3200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005						
Energy	0.0285	0.2595	0.2179	1.5600e-003		0.0197	0.0197		0.0197	0.0197						
Mobile	1.2480	2.0840	10.6628	0.0170	1.1572	0.0261	1.1833	0.3100	0.0240	0.3340						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
Total	**2.3245**	**2.3435**	**10.8870**	**0.0185**	**1.1572**	**0.0458**	**1.2031**	**0.3100**	**0.0437**	**0.3537**						

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	0.9772	6.0000e-005	6.3200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005						
Energy	0.0285	0.2595	0.2179	1.5600e-003		0.0197	0.0197		0.0197	0.0197						
Mobile	1.2480	2.0840	10.6628	0.0170	1.1572	0.0261	1.1833	0.3100	0.0240	0.3340						
Waste						0.0000	0.0000		0.0000	0.0000						
Water						0.0000	0.0000		0.0000	0.0000						
Total	**2.2536**	**2.3435**	**10.8870**	**0.0185**	**1.1572**	**0.0458**	**1.2031**	**0.3100**	**0.0437**	**0.3537**						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2015	6/12/2015	5	10	
2	Grading	Grading	6/15/2015	6/24/2015	5	8	
3	Paving	Paving	6/26/2015	7/2/2015	5	5	
4	Building Construction	Building Construction	7/8/2015	1/15/2016	5	138	
5	Architectural Coating	Architectural Coating	7/22/2015	1/29/2016	5	138	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 214,521; Non-Residential Outdoor: 71,507 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	101.00	40.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2015

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497						
Off-Road	0.0263	0.2845	0.2132	2.0000e-004		0.0154	0.0154		0.0142	0.0142						
Total	**0.0263**	**0.2845**	**0.2132**	**2.0000e-004**	**0.0903**	**0.0154**	**0.1058**	**0.0497**	**0.0142**	**0.0639**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	3.4000e-004	4.0000e-004	4.2300e-003	1.0000e-005	6.6000e-004	1.0000e-005	6.7000e-004	1.8000e-004	0.0000	1.8000e-004						
Total	**3.4000e-004**	**4.0000e-004**	**4.2300e-003**	**1.0000e-005**	**6.6000e-004**	**1.0000e-005**	**6.7000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**						

3.2 Site Preparation - 2015

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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497						
Off-Road	0.0263	0.2845	0.2132	2.0000e-004		0.0154	0.0154		0.0142	0.0142						
Total	**0.0263**	**0.2845**	**0.2132**	**2.0000e-004**	**0.0903**	**0.0154**	**0.1058**	**0.0497**	**0.0142**	**0.0639**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	3.4000e-004	4.0000e-004	4.2300e-003	1.0000e-005	6.6000e-004	1.0000e-005	6.7000e-004	1.8000e-004	0.0000	1.8000e-004						
Total	**3.4000e-004**	**4.0000e-004**	**4.2300e-003**	**1.0000e-005**	**6.6000e-004**	**1.0000e-005**	**6.7000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**						

3.3 Grading - 2015

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					0.0294	0.0000	0.0294	0.0138	0.0000	0.0138						
Off-Road	0.0153	0.1617	0.1067	1.2000e-004		9.3100e-003	9.3100e-003		8.5700e-003	8.5700e-003						
Total	**0.0153**	**0.1617**	**0.1067**	**1.2000e-004**	**0.0294**	**9.3100e-003**	**0.0387**	**0.0138**	**8.5700e-003**	**0.0224**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	2.3000e-004	2.7000e-004	2.8200e-003	1.0000e-005	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004						
Total	**2.3000e-004**	**2.7000e-004**	**2.8200e-003**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**4.4000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**						

3.3 Grading - 2015

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					0.0294	0.0000	0.0294	0.0138	0.0000	0.0138						
Off-Road	0.0153	0.1617	0.1067	1.2000e-004		9.3100e-003	9.3100e-003		8.5700e-003	8.5700e-003						
Total	**0.0153**	**0.1617**	**0.1067**	**1.2000e-004**	**0.0294**	**9.3100e-003**	**0.0387**	**0.0138**	**8.5700e-003**	**0.0224**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	2.3000e-004	2.7000e-004	2.8200e-003	1.0000e-005	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004						
Total	**2.3000e-004**	**2.7000e-004**	**2.8200e-003**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**4.4000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**						

3.4 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.7900e-003	0.0629	0.0375	6.0000e-005		3.5400e-003	3.5400e-003		3.2500e-003	3.2500e-003						
Paving	3.0300e-003					0.0000	0.0000		0.0000	0.0000						
Total	**8.8200e-003**	**0.0629**	**0.0375**	**6.0000e-005**		**3.5400e-003**	**3.5400e-003**		**3.2500e-003**	**3.2500e-003**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.4000e-004	1.7000e-004	1.7600e-003	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005						
Total	**1.4000e-004**	**1.7000e-004**	**1.7600e-003**	**0.0000**	**2.8000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**8.0000e-005**						

3.4 Paving - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.7900e-003	0.0629	0.0375	6.0000e-005		3.5400e-003	3.5400e-003		3.2500e-003	3.2500e-003						
Paving	3.0300e-003					0.0000	0.0000		0.0000	0.0000						
Total	**8.8200e-003**	**0.0629**	**0.0375**	**6.0000e-005**		**3.5400e-003**	**3.5400e-003**		**3.2500e-003**	**3.2500e-003**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	1.4000e-004	1.7000e-004	1.7600e-003	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005						
Total	**1.4000e-004**	**1.7000e-004**	**1.7600e-003**	**0.0000**	**2.8000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**8.0000e-005**						

3.5 Building Construction - 2015

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	0.2324	1.9069	1.1903	1.7000e-003		0.1344	0.1344		0.1264	0.1264						
Total	**0.2324**	**1.9069**	**1.1903**	**1.7000e-003**		**0.1344**	**0.1344**		**0.1264**	**0.1264**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0406	0.2464	0.4669	5.3000e-004	0.0145	4.0200e-003	0.0185	4.1400e-003	3.6900e-003	7.8300e-003						
Worker	0.0241	0.0288	0.3014	5.6000e-004	0.0471	3.8000e-004	0.0475	0.0125	3.4000e-004	0.0129						
Total	**0.0647**	**0.2752**	**0.7683**	**1.0900e-003**	**0.0616**	**4.4000e-003**	**0.0660**	**0.0167**	**4.0300e-003**	**0.0207**						

3.5 Building Construction - 2015

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	0.2324	1.9069	1.1903	1.7000e-003		0.1344	0.1344		0.1264	0.1264						
Total	**0.2324**	**1.9069**	**1.1903**	**1.7000e-003**		**0.1344**	**0.1344**		**0.1264**	**0.1264**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0406	0.2464	0.4669	5.3000e-004	0.0145	4.0200e-003	0.0185	4.1400e-003	3.6900e-003	7.8300e-003						
Worker	0.0241	0.0288	0.3014	5.6000e-004	0.0471	3.8000e-004	0.0475	0.0125	3.4000e-004	0.0129						
Total	**0.0647**	**0.2752**	**0.7683**	**1.0900e-003**	**0.0616**	**4.4000e-003**	**0.0660**	**0.0167**	**4.0300e-003**	**0.0207**						

3.5 Building Construction - 2016

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	0.0187	0.1568	0.1018	1.5000e-004		0.0108	0.0108		0.0102	0.0102						
Total	**0.0187**	**0.1568**	**0.1018**	**1.5000e-004**		**0.0108**	**0.0108**		**0.0102**	**0.0102**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	2.9400e-003	0.0186	0.0363	5.0000e-005	1.2500e-003	2.9000e-004	1.5500e-003	3.6000e-004	2.7000e-004	6.3000e-004						
Worker	1.8600e-003	2.2200e-003	0.0233	5.0000e-005	4.0800e-003	3.0000e-005	4.1100e-003	1.0900e-003	3.0000e-005	1.1100e-003						
Total	**4.8000e-003**	**0.0209**	**0.0595**	**1.0000e-004**	**5.3300e-003**	**3.2000e-004**	**5.6600e-003**	**1.4500e-003**	**3.0000e-004**	**1.7400e-003**						

3.5 Building Construction - 2016

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	0.0187	0.1568	0.1018	1.5000e-004		0.0108	0.0108		0.0102	0.0102						
Total	**0.0187**	**0.1568**	**0.1018**	**1.5000e-004**		**0.0108**	**0.0108**		**0.0102**	**0.0102**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	2.9400e-003	0.0186	0.0363	5.0000e-005	1.2500e-003	2.9000e-004	1.5500e-003	3.6000e-004	2.7000e-004	6.3000e-004						
Worker	1.8600e-003	2.2200e-003	0.0233	5.0000e-005	4.0800e-003	3.0000e-005	4.1100e-003	1.0900e-003	3.0000e-005	1.1100e-003						
Total	**4.8000e-003**	**0.0209**	**0.0595**	**1.0000e-004**	**5.3300e-003**	**3.2000e-004**	**5.6600e-003**	**1.4500e-003**	**3.0000e-004**	**1.7400e-003**						

3.6 Architectural Coating - 2015

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	0.8430					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.0238	0.1504	0.1113	1.7000e-004		0.0129	0.0129		0.0129	0.0129						
Total	**0.8668**	**0.1504**	**0.1113**	**1.7000e-004**		**0.0129**	**0.0129**		**0.0129**	**0.0129**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	4.4000e-003	5.2500e-003	0.0550	1.0000e-004	8.5900e-003	7.0000e-005	8.6600e-003	2.2900e-003	6.0000e-005	2.3500e-003						
Total	**4.4000e-003**	**5.2500e-003**	**0.0550**	**1.0000e-004**	**8.5900e-003**	**7.0000e-005**	**8.6600e-003**	**2.2900e-003**	**6.0000e-005**	**2.3500e-003**						

3.6 Architectural Coating - 2015

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	0.8430					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.0238	0.1504	0.1113	1.7000e-004		0.0129	0.0129		0.0129	0.0129						
Total	**0.8668**	**0.1504**	**0.1113**	**1.7000e-004**		**0.0129**	**0.0129**		**0.0129**	**0.0129**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	4.4000e-003	5.2500e-003	0.0550	1.0000e-004	8.5900e-003	7.0000e-005	8.6600e-003	2.2900e-003	6.0000e-005	2.3500e-003						
Total	**4.4000e-003**	**5.2500e-003**	**0.0550**	**1.0000e-004**	**8.5900e-003**	**7.0000e-005**	**8.6600e-003**	**2.2900e-003**	**6.0000e-005**	**2.3500e-003**						

3.6 Architectural Coating - 2016

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	0.1513					0.0000	0.0000		0.0000	0.0000						
Off-Road	3.8700e-003	0.0249	0.0198	3.0000e-005		2.0600e-003	2.0600e-003		2.0600e-003	2.0600e-003						
Total	**0.1552**	**0.0249**	**0.0198**	**3.0000e-005**		**2.0600e-003**	**2.0600e-003**		**2.0600e-003**	**2.0600e-003**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.0000e-004	8.4000e-004	8.8100e-003	2.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004						
Total	**7.0000e-004**	**8.4000e-004**	**8.8100e-003**	**2.0000e-005**	**1.5400e-003**	**1.0000e-005**	**1.5500e-003**	**4.1000e-004**	**1.0000e-005**	**4.2000e-004**						

3.6 Architectural Coating - 2016

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	0.1513					0.0000	0.0000		0.0000	0.0000						
Off-Road	3.8700e-003	0.0249	0.0198	3.0000e-005		2.0600e-003	2.0600e-003		2.0600e-003	2.0600e-003						
Total	**0.1552**	**0.0249**	**0.0198**	**3.0000e-005**		**2.0600e-003**	**2.0600e-003**		**2.0600e-003**	**2.0600e-003**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	7.0000e-004	8.4000e-004	8.8100e-003	2.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004						
Total	**7.0000e-004**	**8.4000e-004**	**8.8100e-003**	**2.0000e-005**	**1.5400e-003**	**1.0000e-005**	**1.5500e-003**	**4.1000e-004**	**1.0000e-005**	**4.2000e-004**						

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2480	2.0840	10.6628	0.0170	1.1572	0.0261	1.1833	0.3100	0.0240	0.3340						
Unmitigated	1.2480	2.0840	10.6628	0.0170	1.1572	0.0261	1.1833	0.3100	0.0240	0.3340						

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,764.72	1,769.04	1285.20	2,610,256	2,610,256
Parking Lot	0.00	0.00	0.00		
Strip Mall	443.20	420.40	204.30	499,023	499,023
Total	2,207.92	2,189.44	1,489.50	3,109,279	3,109,279

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	10.00	5.00	6.50	19.40	61.60	19.00	58	38	4
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0
Strip Mall	10.00	5.00	6.50	16.60	64.40	19.00	45	40	15

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.504516	0.068219	0.178179	0.147873	0.044976	0.006346	0.020386	0.015946	0.002304	0.002308	0.006193	0.000574	0.002181

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000						
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						
NaturalGas Mitigated	0.0285	0.2595	0.2179	1.5600e-003		0.0197	0.0197		0.0197	0.0197						
NaturalGas Unmitigated	0.0285	0.2595	0.2179	1.5600e-003		0.0197	0.0197		0.0197	0.0197						

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Strip Mall	56500	3.0000e-004	2.7700e-003	2.3300e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004						
Hotel	5.23618e+006	0.0282	0.2567	0.2156	1.5400e-003		0.0195	0.0195		0.0195	0.0195						
Total		**0.0285**	**0.2595**	**0.2179**	**1.5600e-003**		**0.0197**	**0.0197**		**0.0197**	**0.0197**						

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Strip Mall	56500	3.0000e-004	2.7700e-003	2.3300e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004						
Hotel	5.23618e+006	0.0282	0.2567	0.2156	1.5400e-003		0.0195	0.0195		0.0195	0.0195						
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		**0.0285**	**0.2595**	**0.2179**	**1.5600e-003**		**0.0197**	**0.0197**		**0.0197**	**0.0197**						

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	1.43183e +006				
Parking Lot	90464				
Strip Mall	129700				
Total					

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	1.43183e +006				
Parking Lot	90464				
Strip Mall	129700				
Total					

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive 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	0.9772	6.0000e-005	6.3200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005						
Unmitigated	1.0480	6.0000e-005	6.3200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005						

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	0.0994					0.0000	0.0000		0.0000	0.0000						
Consumer Products	0.9480					0.0000	0.0000		0.0000	0.0000						
Landscaping	6.2000e-004	6.0000e-005	6.3200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005						
Total	**1.0480**	**6.0000e-005**	**6.3200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**						

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	0.0994					0.0000	0.0000		0.0000	0.0000						
Consumer Products	0.8771					0.0000	0.0000		0.0000	0.0000						
Landscaping	6.2000e-004	6.0000e-005	6.3200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005						
Total	**0.9772**	**6.0000e-005**	**6.3200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**						

7.0 Water Detail

7.1 Mitigation Measures Water

Use Water Efficient Landscaping

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				
Unmitigated				

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	5.47922 / 0.608802				
Parking Lot	0 / 0				
Strip Mall	0.740725 / 0.453993				
Total					

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	5.47922 / 0.608802				
Parking Lot	0 / 0				
Strip Mall	0.740725 / 0.453993				
Total					

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				
Unmitigated				

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	118.26				
Parking Lot	0				
Strip Mall	10.5				
Total					

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	118.26				
Parking Lot	0				
Strip Mall	10.5				
Total					

9.0 Operational Offroad

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

10.0 Vegetation

65th Hampton Inn and Suites

Sacramento Metropolitan AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	257.00	Space	2.31	102,800.00	0
Hotel	216.00	Room	2.98	129,930.00	0
Strip Mall	10.00	1000sqft	0.23	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2016
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Based off Jackson's report, Sacramento zoning code, and information from the project applicant

Construction Phase - Information provided by the applicant.
The contruction data is found under the Basic Construction Information Needs

Road Dust -

Land Use Change -

Sequestration -

Area Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	138.00
tblConstructionPhase	NumDays	230.00	138.00
tblConstructionPhase	NumDays	20.00	8.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	PhaseEndDate	7/27/2016	1/29/2016
tblConstructionPhase	PhaseEndDate	1/12/2016	1/15/2016
tblConstructionPhase	PhaseEndDate	7/1/2015	7/2/2015
tblConstructionPhase	PhaseStartDate	1/16/2016	7/22/2015
tblConstructionPhase	PhaseStartDate	7/3/2015	7/8/2015
tblConstructionPhase	PhaseStartDate	6/13/2015	6/15/2015
tblConstructionPhase	PhaseStartDate	6/25/2015	6/26/2015
tblGrading	AcresOfGrading	4.00	10.00
tblLandUse	LandUseSquareFeet	313,632.00	129,930.00
tblLandUse	LotAcreage	7.20	2.98
tblProjectCharacteristics	OperationalYear	2014	2016

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	19.5935	56.9624	43.6021	0.0500	18.2032	3.0893	21.2925	9.9670	2.8422	12.8092						
2016	19.1531	34.5274	31.8665	0.0499	1.1554	2.2234	3.3788	0.3111	2.0996	2.4107						
Total	**38.7466**	**91.4898**	**75.4685**	**0.0999**	**19.3586**	**5.3128**	**24.6714**	**10.2781**	**4.9418**	**15.2199**						

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	19.5935	56.9624	43.6021	0.0500	18.2032	3.0893	21.2925	9.9670	2.8422	12.8092						
2016	19.1531	34.5274	31.8665	0.0499	1.1554	2.2234	3.3788	0.3111	2.0996	2.4107						
Total	**38.7466**	**91.4898**	**75.4685**	**0.0999**	**19.3586**	**5.3128**	**24.6714**	**10.2781**	**4.9418**	**15.2199**						

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.7442	4.8000e-004	0.0506	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004						
Energy	0.1564	1.4216	1.1942	8.5300e-003		0.1080	0.1080		0.1080	0.1080						
Mobile	8.1924	11.2040	62.1408	0.1061	6.9152	0.1501	7.0653	1.8472	0.1379	1.9850						
Total	**14.0929**	**12.6261**	**63.3856**	**0.1146**	**6.9152**	**0.2583**	**7.1735**	**1.8472**	**0.2461**	**2.0933**						

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.3558	4.8000e-004	0.0506	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004						
Energy	0.1564	1.4216	1.1942	8.5300e-003		0.1080	0.1080		0.1080	0.1080						
Mobile	8.1924	11.2040	62.1408	0.1061	6.9152	0.1501	7.0653	1.8472	0.1379	1.9850						
Total	**13.7046**	**12.6261**	**63.3856**	**0.1146**	**6.9152**	**0.2583**	**7.1735**	**1.8472**	**0.2461**	**2.0933**						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.76**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2015	6/12/2015	5	10	
2	Grading	Grading	6/15/2015	6/24/2015	5	8	
3	Paving	Paving	6/26/2015	7/2/2015	5	5	
4	Building Construction	Building Construction	7/8/2015	1/15/2016	5	138	
5	Architectural Coating	Architectural Coating	7/22/2015	1/29/2016	5	138	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 214,521; Non-Residential Outdoor: 71,507 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	101.00	40.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307						
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412						
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0805	0.0727	0.9703	1.7500e-003	0.1369	1.0600e-003	0.1380	0.0363	9.7000e-004	0.0373						
Total	**0.0805**	**0.0727**	**0.9703**	**1.7500e-003**	**0.1369**	**1.0600e-003**	**0.1380**	**0.0363**	**9.7000e-004**	**0.0373**						

3.2 Site Preparation - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307						
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412						
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0805	0.0727	0.9703	1.7500e-003	0.1369	1.0600e-003	0.1380	0.0363	9.7000e-004	0.0373						
Total	**0.0805**	**0.0727**	**0.9703**	**1.7500e-003**	**0.1369**	**1.0600e-003**	**0.1380**	**0.0363**	**9.7000e-004**	**0.0373**						

3.3 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.3477	0.0000	7.3477	3.4534	0.0000	3.4534						
Off-Road	3.8327	40.4161	26.6731	0.0298		2.3284	2.3284		2.1421	2.1421						
Total	**3.8327**	**40.4161**	**26.6731**	**0.0298**	**7.3477**	**2.3284**	**9.6761**	**3.4534**	**2.1421**	**5.5954**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0671	0.0606	0.8086	1.4600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311						
Total	**0.0671**	**0.0606**	**0.8086**	**1.4600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**						

3.3 Grading - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.3477	0.0000	7.3477	3.4534	0.0000	3.4534						
Off-Road	3.8327	40.4161	26.6731	0.0298		2.3284	2.3284		2.1421	2.1421						
Total	**3.8327**	**40.4161**	**26.6731**	**0.0298**	**7.3477**	**2.3284**	**9.6761**	**3.4534**	**2.1421**	**5.5954**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0671	0.0606	0.8086	1.4600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311						
Total	**0.0671**	**0.0606**	**0.8086**	**1.4600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**						

3.4 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3172	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016						
Paving	1.2104					0.0000	0.0000		0.0000	0.0000						
Total	**3.5276**	**25.1758**	**14.9781**	**0.0223**		**1.4148**	**1.4148**		**1.3016**	**1.3016**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0671	0.0606	0.8086	1.4600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311						
Total	**0.0671**	**0.0606**	**0.8086**	**1.4600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**						

3.4 Paving - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3172	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016						
Paving	1.2104					0.0000	0.0000		0.0000	0.0000						
Total	**3.5276**	**25.1758**	**14.9781**	**0.0223**		**1.4148**	**1.4148**		**1.3016**	**1.3016**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0671	0.0606	0.8086	1.4600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311						
Total	**0.0671**	**0.0606**	**0.8086**	**1.4600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**						

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904						
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.5763	3.6783	6.4574	8.4100e-003	0.2350	0.0629	0.2978	0.0669	0.0577	0.1246						
Worker	0.4518	0.4081	5.4445	9.8300e-003	0.7683	5.9300e-003	0.7742	0.2038	5.4300e-003	0.2092						
Total	**1.0282**	**4.0864**	**11.9019**	**0.0182**	**1.0033**	**0.0688**	**1.0721**	**0.2707**	**0.0631**	**0.3338**						

3.5 Building Construction - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904						
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.5763	3.6783	6.4574	8.4100e-003	0.2350	0.0629	0.2978	0.0669	0.0577	0.1246						
Worker	0.4518	0.4081	5.4445	9.8300e-003	0.7683	5.9300e-003	0.7742	0.2038	5.4300e-003	0.2092						
Total	**1.0282**	**4.0864**	**11.9019**	**0.0182**	**1.0033**	**0.0688**	**1.0721**	**0.2707**	**0.0631**	**0.3338**						

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485						
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.4833	3.2127	5.6368	8.3700e-003	0.2350	0.0527	0.2876	0.0669	0.0484	0.1153						
Worker	0.4048	0.3641	4.8740	9.8300e-003	0.7683	5.6500e-003	0.7740	0.2038	5.1900e-003	0.2090						
Total	**0.8881**	**3.5768**	**10.5108**	**0.0182**	**1.0033**	**0.0583**	**1.0616**	**0.2707**	**0.0535**	**0.3242**						

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485						
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.4833	3.2127	5.6368	8.3700e-003	0.2350	0.0527	0.2876	0.0669	0.0484	0.1153						
Worker	0.4048	0.3641	4.8740	9.8300e-003	0.7683	5.6500e-003	0.7740	0.2038	5.1900e-003	0.2090						
Total	**0.8881**	**3.5768**	**10.5108**	**0.0182**	**1.0033**	**0.0583**	**1.0616**	**0.2707**	**0.0535**	**0.3242**						

3.6 Architectural Coating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.4102					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209						
Total	**14.8168**	**2.5703**	**1.9018**	**2.9700e-003**		**0.2209**	**0.2209**		**0.2209**	**0.2209**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0895	0.0808	1.0781	1.9500e-003	0.1521	1.1700e-003	0.1533	0.0404	1.0700e-003	0.0414						
Total	**0.0895**	**0.0808**	**1.0781**	**1.9500e-003**	**0.1521**	**1.1700e-003**	**0.1533**	**0.0404**	**1.0700e-003**	**0.0414**						

3.6 Architectural Coating - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.4102					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209						
Total	**14.8168**	**2.5703**	**1.9018**	**2.9700e-003**		**0.2209**	**0.2209**		**0.2209**	**0.2209**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0895	0.0808	1.0781	1.9500e-003	0.1521	1.1700e-003	0.1533	0.0404	1.0700e-003	0.0414						
Total	**0.0895**	**0.0808**	**1.0781**	**1.9500e-003**	**0.1521**	**1.1700e-003**	**0.1533**	**0.0404**	**1.0700e-003**	**0.0414**						

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.4102					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966						
Total	**14.7787**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0802	0.0721	0.9651	1.9500e-003	0.1521	1.1200e-003	0.1533	0.0404	1.0300e-003	0.0414						
Total	**0.0802**	**0.0721**	**0.9651**	**1.9500e-003**	**0.1521**	**1.1200e-003**	**0.1533**	**0.0404**	**1.0300e-003**	**0.0414**						

3.6 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.4102					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966						
Total	**14.7787**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0802	0.0721	0.9651	1.9500e-003	0.1521	1.1200e-003	0.1533	0.0404	1.0300e-003	0.0414						
Total	**0.0802**	**0.0721**	**0.9651**	**1.9500e-003**	**0.1521**	**1.1200e-003**	**0.1533**	**0.0404**	**1.0300e-003**	**0.0414**						

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.1924	11.2040	62.1408	0.1061	6.9152	0.1501	7.0653	1.8472	0.1379	1.9850						
Unmitigated	8.1924	11.2040	62.1408	0.1061	6.9152	0.1501	7.0653	1.8472	0.1379	1.9850						

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,764.72	1,769.04	1285.20	2,610,256	2,610,256
Parking Lot	0.00	0.00	0.00		
Strip Mall	443.20	420.40	204.30	499,023	499,023
Total	2,207.92	2,189.44	1,489.50	3,109,279	3,109,279

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	10.00	5.00	6.50	19.40	61.60	19.00	58	38	4
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0
Strip Mall	10.00	5.00	6.50	16.60	64.40	19.00	45	40	15

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.504516	0.068219	0.178179	0.147873	0.044976	0.006346	0.020386	0.015946	0.002304	0.002308	0.006193	0.000574	0.002181

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1564	1.4216	1.1942	8.5300e-003		0.1080	0.1080		0.1080	0.1080						
NaturalGas Unmitigated	0.1564	1.4216	1.1942	8.5300e-003		0.1080	0.1080		0.1080	0.1080						

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Strip Mall	154.795	1.6700e-003	0.0152	0.0128	9.0000e-005		1.1500e-003	1.1500e-003		1.1500e-003	1.1500e-003						
Hotel	14345.7	0.1547	1.4064	1.1814	8.4400e-003		0.1069	0.1069		0.1069	0.1069						
Total		**0.1564**	**1.4216**	**1.1942**	**8.5300e-003**		**0.1080**	**0.1080**		**0.1080**	**0.1080**						

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Strip Mall	0.154795	1.6700e-003	0.0152	0.0128	9.0000e-005		1.1500e-003	1.1500e-003		1.1500e-003	1.1500e-003						
Hotel	14.3457	0.1547	1.4064	1.1814	8.4400e-003		0.1069	0.1069		0.1069	0.1069						
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		**0.1564**	**1.4216**	**1.1942**	**8.5300e-003**		**0.1080**	**0.1080**		**0.1080**	**0.1080**						

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.3558	4.8000e-004	0.0506	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004						
Unmitigated	5.7442	4.8000e-004	0.0506	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004						

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5448					0.0000	0.0000		0.0000	0.0000						
Consumer Products	5.1944					0.0000	0.0000		0.0000	0.0000						
Landscaping	4.9300e-003	4.8000e-004	0.0506	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004						
Total	**5.7442**	**4.8000e-004**	**0.0506**	**0.0000**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**						

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5448					0.0000	0.0000		0.0000	0.0000						
Consumer Products	4.8061					0.0000	0.0000		0.0000	0.0000						
Landscaping	4.9300e-003	4.8000e-004	0.0506	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004						
Total	**5.3558**	**4.8000e-004**	**0.0506**	**0.0000**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**						

7.0 Water Detail

7.1 Mitigation Measures Water

Use Water Efficient Landscaping

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

65th Hampton Inn and Suites

Sacramento Metropolitan AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	257.00	Space	2.31	102,800.00	0
Hotel	216.00	Room	2.98	129,930.00	0
Strip Mall	10.00	1000sqft	0.23	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	3.5	**Precipitation Freq (Days)**	58
Climate Zone	6			**Operational Year**	2016
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	590.31	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Based off Jackson's report, Sacramento zoning code, and information from the project applicant

Construction Phase - Information provided by the applicant.
The contruction data is found under the Basic Construction Information Needs

Road Dust -

Land Use Change -

Sequestration -

Area Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	138.00
tblConstructionPhase	NumDays	230.00	138.00
tblConstructionPhase	NumDays	20.00	8.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	PhaseEndDate	7/27/2016	1/29/2016
tblConstructionPhase	PhaseEndDate	1/12/2016	1/15/2016
tblConstructionPhase	PhaseEndDate	7/1/2015	7/2/2015
tblConstructionPhase	PhaseStartDate	1/16/2016	7/22/2015
tblConstructionPhase	PhaseStartDate	7/3/2015	7/8/2015
tblConstructionPhase	PhaseStartDate	6/13/2015	6/15/2015
tblConstructionPhase	PhaseStartDate	6/25/2015	6/26/2015
tblGrading	AcresOfGrading	4.00	10.00
tblLandUse	LandUseSquareFeet	313,632.00	129,930.00
tblLandUse	LotAcreage	7.20	2.98
tblProjectCharacteristics	OperationalYear	2014	2016

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	19.7169	56.9800	43.5134	0.0485	18.2032	3.0893	21.2925	9.9670	2.8422	12.8092						
2016	19.2441	34.8643	33.8902	0.0485	1.1554	2.2242	3.3796	0.3111	2.1004	2.4114						
Total	**38.9610**	**91.8443**	**77.4036**	**0.0970**	**19.3586**	**5.3136**	**24.6721**	**10.2781**	**4.9426**	**15.2206**						

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2015	19.7169	56.9800	43.5134	0.0485	18.2032	3.0893	21.2925	9.9670	2.8422	12.8092						
2016	19.2441	34.8643	33.8902	0.0485	1.1554	2.2242	3.3796	0.3111	2.1004	2.4114						
Total	**38.9610**	**91.8443**	**77.4036**	**0.0970**	**19.3586**	**5.3136**	**24.6721**	**10.2781**	**4.9426**	**15.2206**						

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.7442	4.8000e-004	0.0506	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004						
Energy	0.1564	1.4216	1.1942	8.5300e-003		0.1080	0.1080		0.1080	0.1080						
Mobile	7.7017	12.7148	70.2302	0.0960	6.9152	0.1519	7.0671	1.8472	0.1395	1.9867						
Total	**13.6022**	**14.1369**	**71.4749**	**0.1045**	**6.9152**	**0.2601**	**7.1753**	**1.8472**	**0.2477**	**2.0949**						

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.3558	4.8000e-004	0.0506	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004						
Energy	0.1564	1.4216	1.1942	8.5300e-003		0.1080	0.1080		0.1080	0.1080						
Mobile	7.7017	12.7148	70.2302	0.0960	6.9152	0.1519	7.0671	1.8472	0.1395	1.9867						
Total	**13.2138**	**14.1369**	**71.4749**	**0.1045**	**6.9152**	**0.2601**	**7.1753**	**1.8472**	**0.2477**	**2.0949**						

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**2.86**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2015	6/12/2015	5	10	
2	Grading	Grading	6/15/2015	6/24/2015	5	8	
3	Paving	Paving	6/26/2015	7/2/2015	5	5	
4	Building Construction	Building Construction	7/8/2015	1/15/2016	5	138	
5	Architectural Coating	Architectural Coating	7/22/2015	1/29/2016	5	138	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 214,521; Non-Residential Outdoor: 71,507 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	101.00	40.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307						
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412						
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0708	0.0903	0.8816	1.5400e-003	0.1369	1.0600e-003	0.1380	0.0363	9.7000e-004	0.0373						
Total	**0.0708**	**0.0903**	**0.8816**	**1.5400e-003**	**0.1369**	**1.0600e-003**	**0.1380**	**0.0363**	**9.7000e-004**	**0.0373**						

3.2 Site Preparation - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307						
Off-Road	5.2609	56.8897	42.6318	0.0391		3.0883	3.0883		2.8412	2.8412						
Total	**5.2609**	**56.8897**	**42.6318**	**0.0391**	**18.0663**	**3.0883**	**21.1545**	**9.9307**	**2.8412**	**12.7719**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0708	0.0903	0.8816	1.5400e-003	0.1369	1.0600e-003	0.1380	0.0363	9.7000e-004	0.0373						
Total	**0.0708**	**0.0903**	**0.8816**	**1.5400e-003**	**0.1369**	**1.0600e-003**	**0.1380**	**0.0363**	**9.7000e-004**	**0.0373**						

3.3 Grading - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.3477	0.0000	7.3477	3.4534	0.0000	3.4534						
Off-Road	3.8327	40.4161	26.6731	0.0298		2.3284	2.3284		2.1421	2.1421						
Total	**3.8327**	**40.4161**	**26.6731**	**0.0298**	**7.3477**	**2.3284**	**9.6761**	**3.4534**	**2.1421**	**5.5954**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0590	0.0753	0.7347	1.2800e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311						
Total	**0.0590**	**0.0753**	**0.7347**	**1.2800e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**						

3.3 Grading - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.3477	0.0000	7.3477	3.4534	0.0000	3.4534						
Off-Road	3.8327	40.4161	26.6731	0.0298		2.3284	2.3284		2.1421	2.1421						
Total	**3.8327**	**40.4161**	**26.6731**	**0.0298**	**7.3477**	**2.3284**	**9.6761**	**3.4534**	**2.1421**	**5.5954**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0590	0.0753	0.7347	1.2800e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311						
Total	**0.0590**	**0.0753**	**0.7347**	**1.2800e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**						

3.4 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3172	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016						
Paving	1.2104					0.0000	0.0000		0.0000	0.0000						
Total	**3.5276**	**25.1758**	**14.9781**	**0.0223**		**1.4148**	**1.4148**		**1.3016**	**1.3016**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0590	0.0753	0.7347	1.2800e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311						
Total	**0.0590**	**0.0753**	**0.7347**	**1.2800e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**						

3.4 Paving - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3172	25.1758	14.9781	0.0223		1.4148	1.4148		1.3016	1.3016						
Paving	1.2104					0.0000	0.0000		0.0000	0.0000						
Total	**3.5276**	**25.1758**	**14.9781**	**0.0223**		**1.4148**	**1.4148**		**1.3016**	**1.3016**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0590	0.0753	0.7347	1.2800e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311						
Total	**0.0590**	**0.0753**	**0.7347**	**1.2800e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**						

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904						
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.7650	3.9469	9.0104	8.3800e-003	0.2350	0.0638	0.2988	0.0669	0.0586	0.1255						
Worker	0.3974	0.5069	4.9469	8.6300e-003	0.7683	5.9300e-003	0.7742	0.2038	5.4300e-003	0.2092						
Total	**1.1624**	**4.4537**	**13.9573**	**0.0170**	**1.0033**	**0.0698**	**1.0730**	**0.2707**	**0.0640**	**0.3347**						

3.5 Building Construction - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6591	30.0299	18.7446	0.0268		2.1167	2.1167		1.9904	1.9904						
Total	**3.6591**	**30.0299**	**18.7446**	**0.0268**		**2.1167**	**2.1167**		**1.9904**	**1.9904**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.7650	3.9469	9.0104	8.3800e-003	0.2350	0.0638	0.2988	0.0669	0.0586	0.1255						
Worker	0.3974	0.5069	4.9469	8.6300e-003	0.7683	5.9300e-003	0.7742	0.2038	5.4300e-003	0.2092						
Total	**1.1624**	**4.4537**	**13.9573**	**0.0170**	**1.0033**	**0.0698**	**1.0730**	**0.2707**	**0.0640**	**0.3347**						

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485						
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.6362	3.4445	8.2288	8.3400e-003	0.2350	0.0535	0.2884	0.0669	0.0491	0.1160						
Worker	0.3531	0.4518	4.3996	8.6200e-003	0.7683	5.6500e-003	0.7740	0.2038	5.1900e-003	0.2090						
Total	**0.9893**	**3.8962**	**12.6284**	**0.0170**	**1.0033**	**0.0591**	**1.0624**	**0.2707**	**0.0543**	**0.3250**						

3.5 Building Construction - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485						
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.6362	3.4445	8.2288	8.3400e-003	0.2350	0.0535	0.2884	0.0669	0.0491	0.1160						
Worker	0.3531	0.4518	4.3996	8.6200e-003	0.7683	5.6500e-003	0.7740	0.2038	5.1900e-003	0.2090						
Total	**0.9893**	**3.8962**	**12.6284**	**0.0170**	**1.0033**	**0.0591**	**1.0624**	**0.2707**	**0.0543**	**0.3250**						

3.6 Architectural Coating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.4102					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209						
Total	**14.8168**	**2.5703**	**1.9018**	**2.9700e-003**		**0.2209**	**0.2209**		**0.2209**	**0.2209**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0787	0.1004	0.9796	1.7100e-003	0.1521	1.1700e-003	0.1533	0.0404	1.0700e-003	0.0414						
Total	**0.0787**	**0.1004**	**0.9796**	**1.7100e-003**	**0.1521**	**1.1700e-003**	**0.1533**	**0.0404**	**1.0700e-003**	**0.0414**						

3.6 Architectural Coating - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.4102					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209						
Total	**14.8168**	**2.5703**	**1.9018**	**2.9700e-003**		**0.2209**	**0.2209**		**0.2209**	**0.2209**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0787	0.1004	0.9796	1.7100e-003	0.1521	1.1700e-003	0.1533	0.0404	1.0700e-003	0.0414						
Total	**0.0787**	**0.1004**	**0.9796**	**1.7100e-003**	**0.1521**	**1.1700e-003**	**0.1533**	**0.0404**	**1.0700e-003**	**0.0414**						

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.4102					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966						
Total	**14.7787**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**						

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0699	0.0895	0.8712	1.7100e-003	0.1521	1.1200e-003	0.1533	0.0404	1.0300e-003	0.0414						
Total	**0.0699**	**0.0895**	**0.8712**	**1.7100e-003**	**0.1521**	**1.1200e-003**	**0.1533**	**0.0404**	**1.0300e-003**	**0.0414**						

3.6 Architectural Coating - 2016

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	14.4102					0.0000	0.0000		0.0000	0.0000						
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966						
Total	**14.7787**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**						

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000						
Worker	0.0699	0.0895	0.8712	1.7100e-003	0.1521	1.1200e-003	0.1533	0.0404	1.0300e-003	0.0414						
Total	**0.0699**	**0.0895**	**0.8712**	**1.7100e-003**	**0.1521**	**1.1200e-003**	**0.1533**	**0.0404**	**1.0300e-003**	**0.0414**						

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.7017	12.7148	70.2302	0.0960	6.9152	0.1519	7.0671	1.8472	0.1395	1.9867						
Unmitigated	7.7017	12.7148	70.2302	0.0960	6.9152	0.1519	7.0671	1.8472	0.1395	1.9867						

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	1,764.72	1,769.04	1285.20	2,610,256	2,610,256
Parking Lot	0.00	0.00	0.00		
Strip Mall	443.20	420.40	204.30	499,023	499,023
Total	2,207.92	2,189.44	1,489.50	3,109,279	3,109,279

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	10.00	5.00	6.50	19.40	61.60	19.00	58	38	4
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0
Strip Mall	10.00	5.00	6.50	16.60	64.40	19.00	45	40	15

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.504516	0.068219	0.178179	0.147873	0.044976	0.006346	0.020386	0.015946	0.002304	0.002308	0.006193	0.000574	0.002181

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1564	1.4216	1.1942	8.5300e-003		0.1080	0.1080		0.1080	0.1080						
NaturalGas Unmitigated	0.1564	1.4216	1.1942	8.5300e-003		0.1080	0.1080		0.1080	0.1080						

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Strip Mall	154.795	1.6700e-003	0.0152	0.0128	9.0000e-005		1.1500e-003	1.1500e-003		1.1500e-003	1.1500e-003						
Hotel	14345.7	0.1547	1.4064	1.1814	8.4400e-003		0.1069	0.1069		0.1069	0.1069						
Total		**0.1564**	**1.4216**	**1.1942**	**8.5300e-003**		**0.1080**	**0.1080**		**0.1080**	**0.1080**						

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Strip Mall	0.154795	1.6700e-003	0.0152	0.0128	9.0000e-005		1.1500e-003	1.1500e-003		1.1500e-003	1.1500e-003						
Hotel	14.3457	0.1547	1.4064	1.1814	8.4400e-003		0.1069	0.1069		0.1069	0.1069						
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						
Total		**0.1564**	**1.4216**	**1.1942**	**8.5300e-003**		**0.1080**	**0.1080**		**0.1080**	**0.1080**						

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.3558	4.8000e-004	0.0506	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004						
Unmitigated	5.7442	4.8000e-004	0.0506	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004						

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5448					0.0000	0.0000		0.0000	0.0000						
Consumer Products	5.1944					0.0000	0.0000		0.0000	0.0000						
Landscaping	4.9300e-003	4.8000e-004	0.0506	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004						
Total	**5.7442**	**4.8000e-004**	**0.0506**	**0.0000**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**						

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.5448					0.0000	0.0000		0.0000	0.0000						
Consumer Products	4.8061					0.0000	0.0000		0.0000	0.0000						
Landscaping	4.9300e-003	4.8000e-004	0.0506	0.0000		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004						
Total	**5.3558**	**4.8000e-004**	**0.0506**	**0.0000**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**						

7.0 Water Detail

7.1 Mitigation Measures Water

Use Water Efficient Landscaping

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation

APPENDIX B

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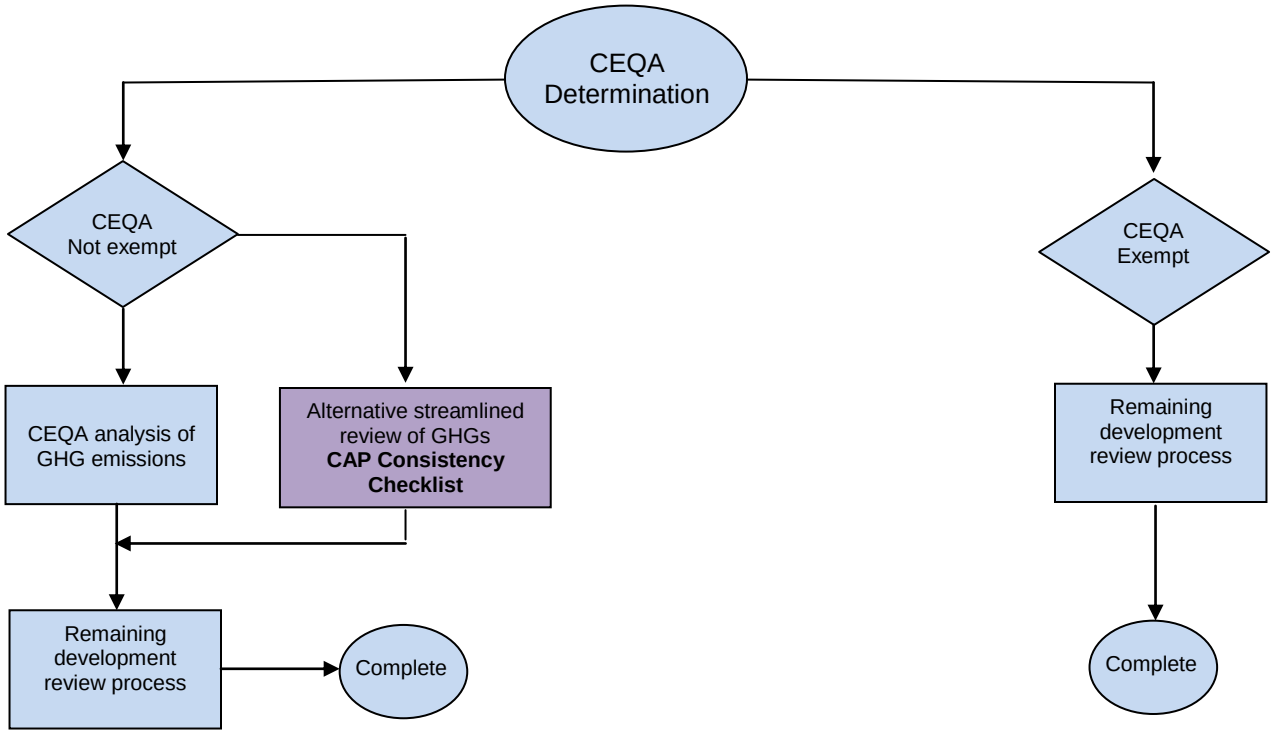
CLIMATE ACTION PLAN – CONSISTENCY REVIEW CHECKLIST

The purpose of the Climate Action Plan Consistency Review Checklist (CAP Consistency Review Checklist) is to provide a streamlined review process for proposed new development projects which are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA)..

CEQA Guidelines require the analysis of greenhouse gas (GHG) emissions and potential climate change impacts from new development. The Sacramento Climate Action Plan qualifies under section 15183.5 of the CEQA Guidelines as a plan for the reduction of GHG emissions for use in cumulative impact analysis pertaining to development projects. This allows projects that demonstrate consistency with the CAP to be eligible for this streamlining procedure. Projects that demonstrate consistency with the CAP and the Sacramento 2030 General Plan may be able to answer "No additional significant environmental effect" in the City's initial study checklist. Projects that do not demonstrate consistency may, at the City's discretion, prepare a more comprehensive project-specific analysis of GHG emissions consistent with CEQA requirements. (See FAQ about the CAP Consistency Review Checklist for more details.)

The diagram below shows the context for the CAP Consistency Review Checklist within the planning review process framework.

Streamlined Review of GHG Emissions in Development Projects



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CLIMATE ACTION PLAN – CONSISTENCY REVIEW CHECKLIST

Application Submittal Requirements

1. The CAP Consistency Review Checklist is required only for proposed new development projects which are subject to CEQA review (non-exempt projects)
2. If required, the CAP Consistency Review Checklist must be submitted in addition to the basic set of requirements set forth in the Universal Application and the Planning Application Submittal Matrix.
3. The applicant shall work with staff to meet the requirements of this checklist. These requirements will be reflected in the conditions of approval and/or mitigation measures.
4. All conditions of approval and mitigation measures from this checklist shall be shown on full-size sheets for building plan check submittals.

Application Information

Project Number: _____

Address of Property: 1817 65th Street, Sacramento

Was a special consultant retained to complete this checklist? ■ Yes ☐ No. If yes, complete following

Consultant Name*: Elise Carroll

Company: Raney Planning & Management

Phone: 916-372-6100 E-Mail: ecarroll@raneymanagement.com

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CAP Consistency Checklist Form for Projects that are Not Exempt from CEQA

Checklist Item (Check the appropriate box, and provide explanation for your answer).	Yes	No*
1. Is the proposed project substantially consistent with the City's over-all goals for land use and urban form, allowable floor area ratio (FAR) and/or density standards in the City's 2030 General Plan, as it currently exists?	X	

Please explain how proposed project compares to 2030 General Plan with respect to density standards, FAR, land use and urban form. (See directions for filling out CAP Checklist)

The project site is zoned as Commercial (C-2) and Transit (TO) and designated Urban Center Low. The proposed uses are consistent with the zoning and designations. The allowable FAR for the aforementioned designations is between 0.4 to 4.0, or 45,770 sf to 457,704 sf) and the proposed project would provide 74,674 sf.

2. Would the project reduce average vehicle miles traveled (VMT) per capita of the proposed residents, employees, and/or visitors to the project by a minimum of 35% compared to the statewide average?	Yes	No*	NA
	X		

Please explain how proposed project meets this requirement. If "not applicable", explain why this was not required. If project does not meet this requirement, see Directions for filling out CAP Consistency Review Checklist for alternatives to meeting checklist requirements.

Per Exhibit 1, the proposed project meets the requirement.

(Attach a copy of the VMT model input and output. Record the model and version here _____)

*If "No", equivalent or better GHG reduction must be demonstrated as part of the project, and incorporated into conditions of approval.

Note: Requirements from this checklist should be incorporated into the conditions of approval, and shown on the full-size plans submitted for building plan check.

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Checklist Item (Check the appropriate box, and provide explanation for your answer).	Yes	NA
3. Would the project incorporate traffic calming measures? *(Examples of traffic calming measures include, but are not limited to: curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers.)*		X

Please explain how the proposed project meets this requirement (list traffic calming measures). If "not applicable", explain why traffic calming measures were not required.

The proposed project is an infill development and does not include roadway or facility improvements. The project includes construction of Sacramento RT improvements which would be completed in conjunction with Sacramento RT to ensure the proper traffic measures are complied with.

4. Would the project incorporate pedestrian facilities and connections to public transportation consistent with the City's Pedestrian Master Plan?	Yes	NA
	X	

Please explain how the proposed project meets this requirement. If "not applicable", explain why this was not required.

The project site is located adjacent to the Sacramento RT Light Rail and the project would include improvements to the adjacent station. Pedestrian connection would be made from the proposed hotel to the Sacramento RT station. Additional pedestrian facilities would also be incorporated around the hotel building. As such, the project would incorporate connections to public transportation and would be consistent with the City's Pedestrian Master Plan.

*If "No", equivalent or better GHG reduction must be demonstrated as part of the project and incorporated into the conditions of approval.

Note: Requirements from this checklist should be incorporated into the conditions of approval, and shown on the full-size plans submitted for building plan check.

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5. Would the project incorporate bicycle facilities consistent with the City's Bikeway Master Plan, and meet or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen?	Yes	NA
	X	

Please explain how the proposed project meets this requirement. If "not applicable", explain why this was not required.

The proposed project would include 6 short-term bicycle spaces (per CalGreen Section 5.106.4.1.1) and 6 long-term bicycle spaces (per CalGreen Section 5.106.4.1.2). The long- and short-term bicycle facilities would be consistent with the Sacramento City Code (Section 17.608.040).Existing bikeways are already present in the area and consistent with the Bikeway Master Plan. The project is infill development and would not modify the existing roadway network.

6. For residential projects of 10 or more units, commercial projects greater than 25,000 square feet, or industrial projects greater than 100,000 square feet, would the project include on-site renewable energy systems (e.g., photovoltaic systems) that would generate at least a minimum of 15% of the project's total energy demand on-site? (CAP Actions: 3.4.1 and 3.4.2)	Yes	No*	NA
		X	

Please explain how the proposed project meets this requirement. If "not applicable", explain why this was not required. If project does not meet requirements, see DIRECTIONS FOR FILLING OUT CAP CONSISTENCY REVIEW CHECKLIST re: alternatives to meeting checklist requirements.

As a substitution for on-site renewable energy systems, the project would exceed the Title 24 energy efficiency standards by 5%. This requirement will be included and demonstrated on project building plans subject to review and approval by the City per Mitigation Measure AQ-1 of the Initial Study.

Attach a copy of the CalEEMod input and output. Record the model and version here _____.
Do NOT select the "use historical" box in CalEEMod for energy demand analysis related to this requirement.

7. Would the project (if constructed on or after January 1, 2014) comply with minimum CALGreen Tier I water efficiency standards?	Yes	NA

Please explain how the proposed project meets this requirement. If "not applicable", explain why this was not required.

Submittal of a CALGreen checklist showing how the proposed project would meet the CALGreen Tier 1 water efficiency and conservation standards, which would be reviewed and approved by the City, is required per Mitigation Measure AQ-2 of the Initial Study.

*If "No", equivalent or better GHG reduction must be demonstrated as part and incorporated into the conditions of approval.

Note: Requirements from this checklist should be incorporated into the conditions of approval, and shown on the full-size plans submitted for building plan check.

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Certification

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.

Signature: _____ Date: _____

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DIRECTIONS FOR FILLING OUT CAP CONSISTENCY REVIEW CHECKLIST

General Plan Consistency

1. **Is the proposed project substantially consistent with the land use and urban form designation, allowable floor area ratio (FAR) and/or density standards in the City's 2030 General Plan?**

   Consistency with the General Plan land use and urban form designation, FAR and/or density standards is a key determining factor in whether or not the CAP Consistency Review procedure can be used. This is because future growth and development consistent with the General Plan was used to estimate business as usual emission forecasts, as well as emission reductions from actions that would be applicable to new development.

   Refer to the 2030 General Plan, Land Use and Urban Form Designations and Development Standards starting on page 2-29. If a project is not fully consistent with the General Plan, the project still may qualify for consistency with the CAP, but this determination will need to be closely coordinated with the City. The City will determine whether the proposed land uses under consideration could be found consistent with the growth projections and assumptions used to develop the GHG emissions inventory and projections in the CAP.

Sustainable Land Use

2. **Would the project reduce average vehicle miles traveled (VMT) per capita of the proposed residents, employees, and/or visitors to the project by a minimum of 35% compared to the statewide average? (Applicable CAP Action: 1.1.1)**

   The statewide VMT/capita in 2009 was 8,937 VMT/capita/year, which is approximately 24.5 VMT/capita/day[1,2]. A 35% reduction below the 2009 statewide average would be 5,809 VMT/capita/year, or about 15.9 VMT/capita/day.

   Steps to Determine if Proposed Project is Consistent with CAP Action 1.1.1:

   Step 1: Consult VMT/Capita Screening Map:

   The map below can be used as a quick screening tool to determine whether or not a proposed project is likely to meet the 35% reduction standard based on its geographic location.

   If the proposed project is located in the green area of the map, it can be assumed to have a VMT/capita/day below 16, and no further action related to VMT is necessary. If the proposed project is located within one of the red areas, or in a white area adjacent to any red parcel, it cannot be assumed to achieve the standard, and further analysis is required to show that the project is below 16 VMT/capita/day. Proceed to Step 2, and estimate the project VMT using one of the computer modeling tools below.

[1] Federal Highway Administration. 2009. Table VM-2 - Highway Statistics 2009. http://www.fhwa.dot.gov/policyinformation/statistics/2009/vm2.cfm.
[2] U.S. Census Bureau, 2005-2009 American Community Survey. http://factfinder.census.gov/servlet/ACSSAFFFacts?_event=Search&_lang=en&_sse=on&geo_id=04000US06&_state=04000US06

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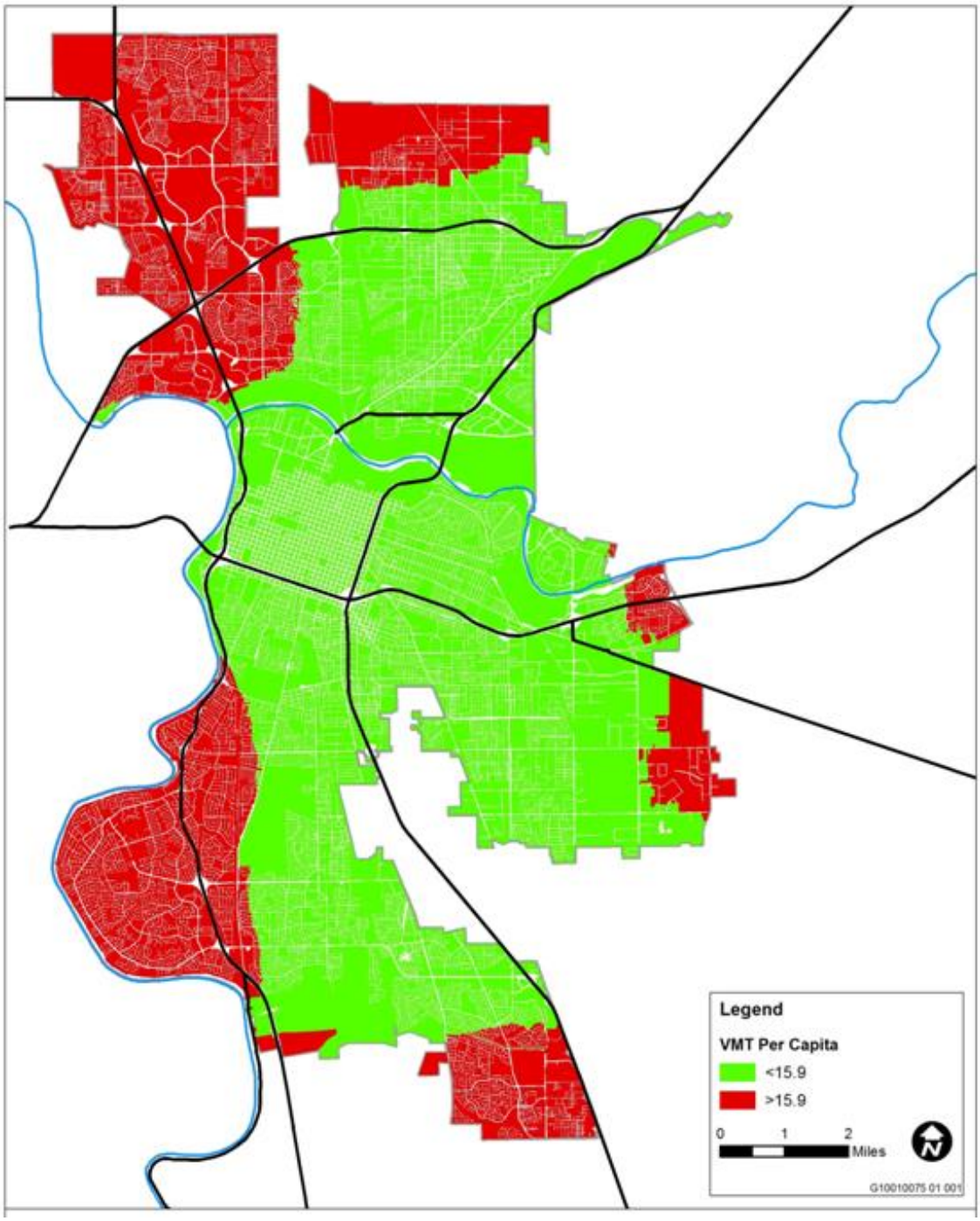
Exhibit 1: City of Sacramento Daily VMT/Capita, 2008 Base Year
Source: SACOG, SACSIM Model, 2012.



Step 2: VMT Modeling

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Download one of computer modeling tools from the following links and follow the user guide for the tool that you have selected. Select the year 2020 as the year of project operation and compare the modeled VMT/capita/day with the City's standard of 15.9 VMT/capita/day. If the result of the computer modeling supports the project's consistency with the City's VMT/capita standard, then the project is considered to comply with CAP Action 1.1.1. If the project's estimated VMT/capita exceeds the City's standard of 15.9, proceed to Step 3.

California Emission Estimator Model (CalEEMod 2013.2 or most recent version)
CalEEMod is a statewide land use emissions computer model that provides a comprehensive estimate of development project criteria pollutants and GHG emissions associated with both construction and operations from a variety of land use project types.

Sketch 7 VMT Estimation Tool (Contact SACOG for most recent version)
The Sketch 7 model is a web-based, parcel-level, scenario planning tool that allows users to input land uses and project attributes such as demographic data, design, density, quality of public transit, mix of land uses, and other planning-related features. Sketch 7 estimates VMT/capita and other environmental indicators based on region-specific parameters, local land use plans and the SACSIM model. Sketch 7 also accounts for the interaction of the project's proposed land uses with the surrounding land uses.

Step 3: Additional Mitigation and Further Analysis

If the proposed project does not pass Steps 1 and 2, additional mitigation from another category (such as building energy efficiency) can be substituted as long as this GHG reduction does not "double count" GHG reductions already taken by the CAP. In other words, mitigation will be necessary to reduce GHG emissions from the project beyond what is already accounted for in the CAP (to avoid double-counting).

Step 3(a) - Determine the increment of total VMT by which the project exceeds the City's 15.9 VMT/capita/day standard. For example, if the project would result in 18 VMT/capita/day and proposes to accommodate 400 new residents, the increment that the project would exceed the City's standard would be 306,600 VMT, which equals: (18 – 15.9 VMT/capita/day) * 400 residents *365 days/year.
Step 3(b) - Convert VMT into metric tons carbon dioxide equivalent per year (MT CO_2e/year) by use of a vehicle emission factor. The City recommends using an emission factor of 0.000452 MT CO_2e/VMT, which was obtained from the California Air Resources Board's (ARB's) Mobile-Source Emission Factor Model (EMFAC) and was used to develop the City's GHG inventory in its CAP. In the above example, the project would be required to mitigate approximately 139 MT CO_2e/year through additional mitigation.

Additional mitigation may include equivalent or better GHG reduction from individual measures or a combination of:

- Exceeding energy efficiency standards of Title 24, part 6 of the California Building Code (using 2008 T24 standards as a baseline)
- Generation of greater than 15% of the project's energy on-site through installation of solar panels or other on-site renewable energy technology
- Other land use (e.g., additional amenities), transportation, bicycle, or pedestrian improvements that would reduce VMT not already accounted for in Sketch 7 modeling under Step 2.

The applicant should provide documentation (e.g., California Emissions Estimator Model [CalEEMod]) that the combination of mitigation selected would achieve the equivalent GHG emission reduction necessary to close the gap between the proposed project's VMT/capita/day and the City's standard of 15.9 VMT/capita/day. If the project applicant can present equivalent mitigation as defined by this section, the City would consider the project consistent with CAP Action 1.1.1. If the project applicant could not identify sufficient surplus mitigation to reduce equivalent project-generated GHG emissions, the project would not be consistent with CAP Action 1.1.1.

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Mobility

3. Would the project incorporate traffic calming measures? (Applicable CAP Action: 2.1.1)

List the traffic calming measures that have been incorporated into the project. These may include, but are not limited to: curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers.

The project proponent and City staff should consult with staff in the Department of Public Works-Transportation Division to verify that traffic calming measures are adequate and in compliance with the City's Street Design Standards.

If the proposed project does not include any roadway or facility improvements, traffic calming measures may not apply. For example, certain infill projects may not result in on-street or transportation facility improvements because sufficient infrastructure already exists

4. Would the project incorporate pedestrian facilities and connections to public transportation consistent with the City's Pedestrian Master Plan? (Applicable CAP Action: 2.2.1)

List the pedestrian facilities and connections to public transportation that have been included in the proposed project on the Checklist. These may include, but are not limited to: sidewalks on both sides of streets, marked crosswalks, count-down signal timers, curb extensions, median islands, transit shelters, street lighting.

The project proponent and City staff should consult with Department of Public Works-Transportation Division staff to verify that pedestrian facilities are consistent with the Pedestrian Master Plan. As in the previous example, if "not applicable", an explanation shall be documented in the Checklist. The "Pedestrian Review Process Guide" (Appendix A to the Master Plan) will be used to determine consistency, as follows:

- For typical infill development projects where existing streets will serve the site (no new streets are proposed): the level of pedestrian improvements necessary to determine Pedestrian Master Plan consistency will be measured according to the "Basic, Upgrade or Premium" categories defined in Appendix A to the Pedestrian Master Plan, which are based on project location, surrounding land uses, proximity to transit, etc. If the proposed project does not include the minimum level of improvements per the assigned category for the project's location, the project will be required as a condition of approval to include appropriate features, per the approval of the Department of Public Works-Transportation Division.

- For new "greenfield" projects and/or larger infill development projects where new streets are proposed as part of the project, the following will apply:
    - "Basic, Upgrade or Premium" levels of improvement will be required based on the proposed project's location and context, where applicable, consistent with the criteria defined in the Master Plan. If the proposed project does not include the minimum level of improvements per the assigned category, the project will be required as a condition of approval to include appropriate features, per the approval of the Department of Public Works-Transportation Division.
    - The "Pedestrian Smart Growth Scorecard" (Appendix A to the Master Plan) will be required to be completed for the project, and a minimum score of 3 or better will need to be achieved. If the proposed

project cannot achieve the minimum score, changes to the proposed project may be required, and/or the project may be required as a condition of approval to include certain improvements such that the average score will meet 3 or better. (Note: an Excel version of the Pedestrian Smart Growth Scorecard is available, to assist in automating the rating & scoring process)

5. **Would the project incorporate bicycle facilities consistent with the City's Bikeway Master Plan, and meet or exceed minimum standards for bicycle facilities in the Zoning Code and CALGreen? (Applicable CAP Action: 2.3.1)**

   List the bicycle facilities that are incorporated into the proposed project on the Checklist. In addition, list bicycle facilities. These include, but are not limited to: Class I bike trails and Class II bike lanes connecting the project site to an existing bike network and transit stations, bike parking [bike racks, indoor secure bike parking, bike lockers], end-of-trip facilities at non-residential land uses [showers, lockers]).

   The project proponent and City staff should consult with staff in the Transportation Division of the Department of Public Works to verify that such facilities are consistent with the Bikeway Master Plan and meet or exceed Zoning Code and CALGreen standards. Generally, the following guidelines will be used:

   - If existing on-street and off-street bikeways are already present and determined to be consistent with the Bikeway Master Plan, no additional on-street bikeways will be required. Check the "not applicable" box if appropriate. However, on-site facilities shall still be required to meet or exceed minimum Zoning and CALGreen requirements.
   - If not applicable, fully document the reasons why using the Checklist.
   - If on-street bicycle facilities are not present or are only partially consistent with the Master Plan, the project will be required as a condition of approval to construct or pay for its fair-share of on-street and/or off-street bikeways described in the Master Plan, in addition to meeting or exceeding minimum on-site facilities.
   - In some cases, a combination of new or upgraded on-street and off-street bikeways may be used to determine consistency with the Master Plan, at the discretion of the Department of Public Works-Transportation Division staff.

Energy Efficiency and Renewable Energy

6. **For residential projects of 10 or more units, commercial projects greater than 25,000 square feet, or industrial projects greater than 100,000 square feet, would the project include on-site renewable energy systems (e.g., solar photovoltaic, solar water heating etc.) that would generate at least 15% of the project's total energy demand? (CAP Actions: 3.4.1 and 3.4.2)**

   For projects of the minimum size specified in this measure, a commitment in the project description or in a mitigation measure that the project shall generate a minimum of 15% of the project's energy demand on-site is sufficient to demonstrate consistency with this measure. However, the project conditions of approval or mitigation measures should specify the intended renewable energy technology to be used (e.g. solar photovoltaic, solar water heating, wind, etc.) and estimated size of the systems to meet project demand based on the project description.

   "Total energy demand" refers to the energy (electricity and natural gas) consumed by the built environment (including HVAC systems, water heating systems, and lighting systems) as well as uses that are independent of the construction of buildings, such as office equipment and other plug-ins.

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Applicants may estimate the total energy demand of their projects using California Emissions Estimator Model (CalEEMod 2013.2), the same software used to estimate greenhouse gas emissions. ***For CalEEMod estimates of energy demand to meet this specific requirement, the user should NOT select the "use historical" box, otherwise they will be "double-counting" emissions reductions that have already been counted***. CalEEMod outputs for electricity demand are provided in annual kWh, and natural gas demand is provided in annual kBTU.

The energy demand estimate by CalEEMod is based on two datasets:

- The California Commercial End Use Survey (CEUS);
- The Residential Appliance Saturation Survey (RASS

CalEEMod takes energy use intensity data (above) and forecasts energy demand based on climate zone, land use subtype (such as "hospital", "arena", or "apartments, mid rise"), building area, and the number of buildings or units. This is an appropriate level of analysis for use at the planning submittal stage, but it may not provide an accurate picture of actual project energy demand because it does not factor project specifics such as building design.

Therefore, the applicant is advised (but not required) to run a more comprehensive energy simulation once project-specific details are known: basic building design, square-footage, building envelope, lighting design (at least rudimentary), and the mechanical system (at least minimally zoned). Some of the energy simulation programs that are appropriate for this level of analysis include: DOE 2.2, Trace 700, and Energy Pro.

The U.S. DOE maintains a list of energy simulation programs that are available.
http://apps1.eere.energy.gov/buildings/tools_directory/subjects.cfm/pagename=subjects/pagename_menu=whole_building_analysis/pagename_submenu=energy_simulation

The applicant may then work with City staff to revise the estimate and make a final determination regarding the size of the PV system that is required.

Substitutions: Projects may substitute a quantity of energy efficiency for renewable energy, as long as the substituted GHG reduction does not "double count" GHG reductions already taken by the CAP. In other words, substitutions must reduce GHG emissions from the project beyond what is already accounted for in the CAP (to avoid double-counting).

- Additional mitigation may include equivalent or better GHG reduction from individual measures or a combination of:
- Exceeding energy efficiency standards of Title 24, part 6 of the California Building Code by 15% or better using 2008 T24 standards as a baseline. (Please note that due to more rigorous minimum energy efficiency standards, after January 1, 2014, residential projects will need to exceed the new minimum building code standards by 10% and commercial projects will need to exceed the new minimum building code by 5%).

- Other land use (e.g., additional amenities), transportation, bicycle, or pedestrian improvements that would reduce VMT not already accounted for in VMT models under Step 2.

7. Would the project comply with minimum CALGreen Tier I water efficiency standards? (CAP Action: 5.1.1)

City of SACRAMENTO
Community Development

300 Richards Blvd., 3rd Floor
Sacramento, CA 95811

Help Line: 916-264-5011
CityofSacramento.org/dsd

The California Green Building Standards Code (CALGreen) includes mandatory green building measures, as well as voluntary measures that local jurisdictions may choose to adopt to achieve higher performance tiers, at either Tier 1 or Tier 2 compliance levels. Sacramento has adopted Tier 1 Water Efficiency Standards to be required on or after January 1, 2014 Currently, in order to meet the Tier 1 Water Efficiency Standards, buildings are required to implement all mandatory water efficiency and conservation measures as well as certain Tier 1 specific measures that exceed minimum mandatory measures (e.g. 30% increase in indoor water efficiency). Specific Tier 1 provisions can be found in the CALGreen Code at http://www.bsc.ca.gov/Home/CALGreen.aspx.

The City recognizes that project construction details are often not known at the environmental review stage, and it may be premature for a project proponent to identify compliance with precise requirements of CALGreen. A condition of approval requiring the project to comply with minimum CALGreen Tier 1 water efficiency and conservation standards is sufficient to demonstrate consistency with this criterion.

Planning approval of your project will include the following condition:
Project must meet CALGreen Tier 1 water efficiency and conservation standards. Copies of the appropriate CalGreen checklist (see FAQ) shall be included on the full-size sheets for building plan check submittals.

Note: Requirements from this checklist should be incorporated into the conditions of approval, and shown on the full-size plans submitted for building plan check.

APPENDIX C

Environmental Noise & Vibration Analysis

65th Street Hampton Inn & Suites Hotel

Sacramento, California

BAC Job # 2014-163

Prepared For:

Jackson Properties, Inc.

Mr. Bill Fargo
5665 Power Inn Rd., Ste. 140
Sacramento, CA 95824

Prepared By:

Bollard Acoustical Consultants, Inc.

Paul Bollard, President

January 28, 2015

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Acoustical Consultants

CEQA Checklist

NOISE – **Would the Project Result in:**	**NA – Not Applicable**	**Potentially Significant Impact**	**Less than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			**X**		
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				**X**	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				**X**	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above level existing without the project?				**X**	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project to excessive noise levels?					**X**
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?					**X**

Introduction

The 65th Street Hampton Inn & Suites project is located at 1817 65th Street in the East Sacramento Community Plan Area of the City of Sacramento. The 5.14-acre project site is bounded by 65th Street to the west, the Sacramento Regional Transit (RT) District and Q Street to the north, Redding Avenue to the east, and U.S. Route 50 (U.S. 50) to the south. The project area is identified on Figure 1.

The proposed project includes the development of two hotel buildings and one retail building. In addition, a new light rail crossing and curb ramp would be constructed near the existing Sacramento RT corridor to allow pedestrian transportation across the RT path located east of 65th Street and south of Q Street. Furthermore, platform improvements at the Sacramento RT District station may occur concurrently with project development.

Construction of the proposed project would occur in two phases, beginning with the Hampton Inn & Suites development proposed on the east side of the project area. The second phase would include the second hotel building, the retail building, and the Sacramento RT District station improvements. Figure 2 shows the proposed site plan.

The purposes of this analysis are to assess potential noise and vibration impacts due to, and upon, the proposed project.

Fundamentals and Terminology

Noise

In addition to the following discussion, definitions of acoustical terminology uses in this assessment are included in Appendix A. Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and hence are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz).

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by weighing the frequency response of a sound level meter by means of the standardized A-weighting network.

Figure 1

Hampton Inn & Suites - Sacramento, California

Project Area and Noise Monitoring Locations

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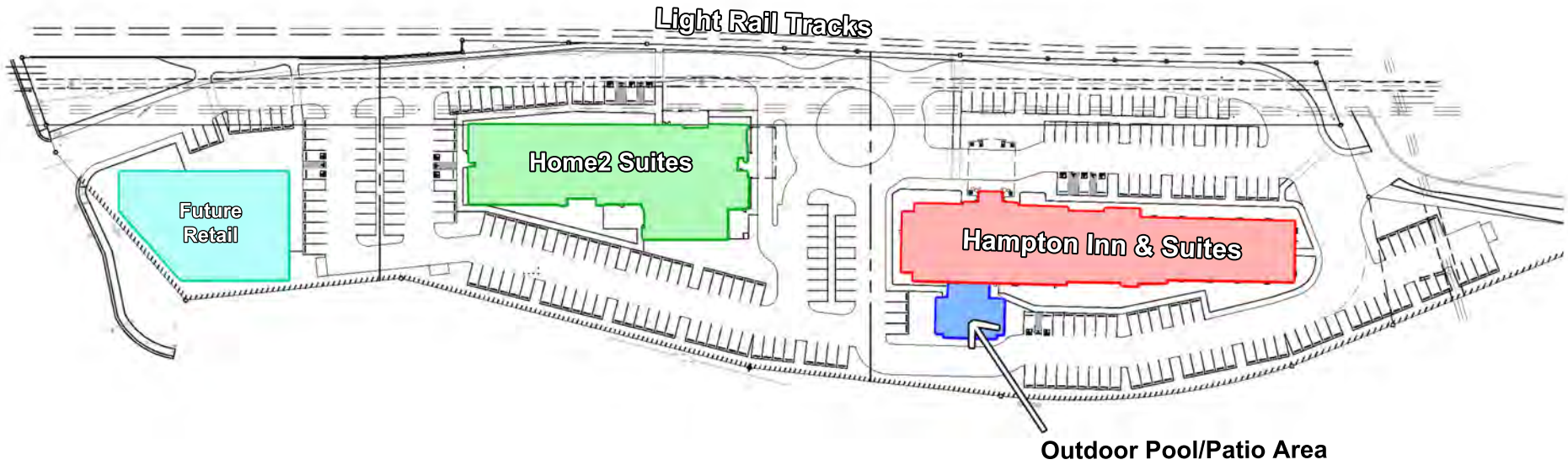
Scale (feet)

0 150 300

Figure 2

Hampton Inn & Suites - Sacramento, California

Project Site Plan



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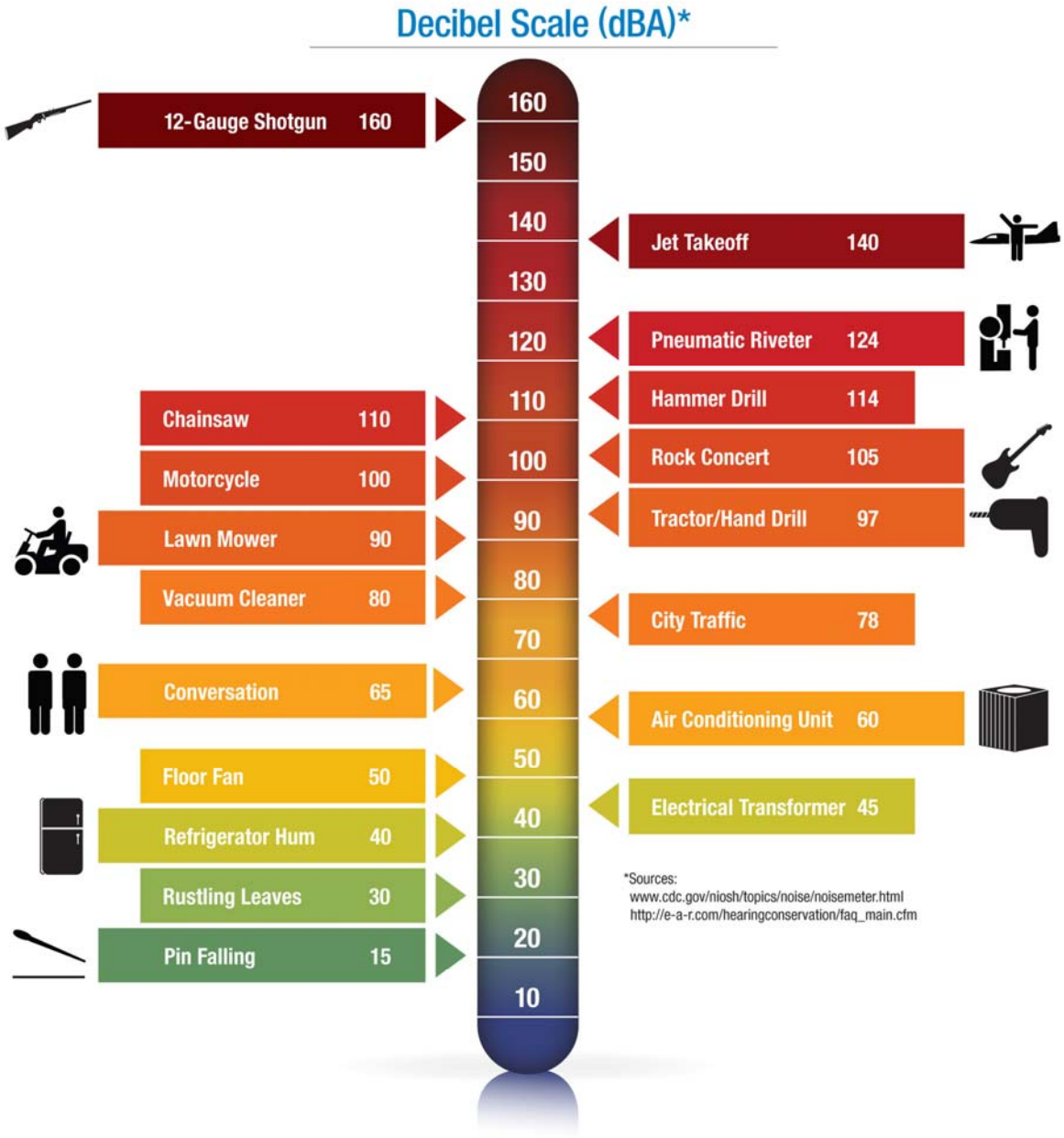
Scale (feet)
0 0 200

Because the A-weighting scale conditions the flat (unfiltered) sound signal received by the noise meter to match the natural filtering conducted by the human ear, there is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels. Figure 3 provides examples of sound pressure levels for various noise sources or activities.

Figure 3



Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (Leq), which corresponds to a steady-state A-weighted sound level containing the same total energy as a time-varying signal over a given time period (usually one hour). The Leq is the foundation of the composite noise descriptor, Ldn, and shows very good correlation with community response to noise.

The Day-night Average Level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment. L_{dn} based noise standards are commonly used to assess noise impacts associated with traffic, railroad and aircraft noise sources.

Single-Event Noise & Sleep Disturbance

A single event is an individual distinct loud activity, such as a train passage, or any other brief and discrete noise-generating activity. Because most noise policies applicable to transportation noise sources are typically specified in terms of 24-hour-averaged descriptors, such as Ldn or CNEL, the potential for annoyance or sleep disturbance associated with individual loud events can be masked by the averaging process.

Extensive studies have been conducted regarding the effects of single-event noise on sleep disturbance, with the Sound Exposure Level (SEL) metric being a common metric used for such assessments. SEL represents the entire sound energy of a given single-event normalized into a one-second period regardless of event duration. As a result, the single-number SEL metric contains information pertaining to both event duration and intensity. Another descriptor utilized to assess single-event noise is the maximum, or Lmax, noise level associated with the event. A problem with utilizing Lmax to assess singe events is that the duration of the event is not considered.

There is currently no national consensus regarding the appropriateness of SEL criteria as a supplement or replacement for cumulative noise level metrics such as Ldn and CNEL. Nonetheless, because SEL describes a receiver's total noise exposure from a single impulsive event, SEL is often used to characterize noise from individual brief loud events.

Due to the wide variation in test subjects' reactions to noises of various levels (some test subjects were awakened by indoor SEL values of 50 dB, whereas others slept through indoor SEL values exceeding 80 dB), no definitive consensus has been reached with respect to a universal criterion to apply to environmental noise assessments.

It is estimated that only 10 to 20 percent of the reported cases of sleep disturbance are for reasons relating to transportation noise. Most studies focus on investigating possible secondary effects of sleep disturbance, including reduced perceived sleep quality, increased fatigue,

depressed mood or wellbeing, and decreased performance (Carter 1996, INRETS 1993, Passchier-Vermeer 1993, Pearson et al. 1995). Sleep disturbance is recognized as intrinsically undesirable and, thus, is considered an adverse noise impact in and of itself. Sleep disturbance studies have developed predictive models of awakenings caused by transportation noise sources. Predicted awakening percentages as a function of indoor SELs are shown in Table 1.

Table 1
Sleep Disturbance as a Function of Single Event Noise Exposure

Indoor SEL (dBA)	Average Percent Awakened
45	0.8%
50	1.0%
55	1.2%
60	1.5%
65	1.8%
70	2.2%
75	2.8%
80	3.4%
85	4.2%

Notes: Average Percent Awakened = 0.58 + (4.30 * 10^{-8}) * SEL
Source: Finegold and Bartholomew, 2001. "A Predictive Model of Noise Induced Awakenings from Transportation Sources" In *Noise Control Engineering Journal*, 2001: pp. 331-338.

Perception of Changes in Noise Levels

Table 2 is an approximation of human sensitivity to changes in sound levels. According to Egan (Architectural Acoustics, 2007), sound intensity is not perceived directly in the ear; rather pressure waves impacting the eardrum are transferred to the brain where acoustical sensations are interpreted as loudness. This makes hearing perception highly individualized. Sensitivity to noise also depends on frequency content, time of occurrence, duration of sound, and psychological factors such as emotion and expectations. Nevertheless, Table 2 is a reasonable guide to illustrate changes in sound levels for many situations.

Table 2
Human Reaction to Changes in Noise Exposure

Change in Sound Level (dBA)	Reaction
1	Imperceptible (except for tones)
3	Just barely perceptible
6	Clearly noticeable
10	About twice (or half) as loud
20	About four times (or one-fourth) as loud

Source: Egan, 2007

Vibration

According to the Federal Transit Administration Noise and Vibration Impact Assessment Guidelines (FTA-VA-90-06), ground-borne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard. In contrast to airborne noise, ground-borne vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of ground-borne vibration are trains, buses on rough roads, and construction activities such as blasting, pile-driving and operating heavy earth-moving equipment.

The effects of ground-borne vibration include feelable movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Building damage is not a factor for normal transportation projects, with the occasional exception of blasting and pile-driving during construction. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by only a small margin. A vibration level that causes annoyance will be well below the damage threshold for normal buildings.

Train wheels rolling on rails create vibration energy that is transmitted through the track support system into the ground, creating vibration waves that propagate through the various soil and rock strata to the foundations of nearby buildings. The vibration propagates from the foundation throughout the remainder of the building structure. The maximum vibration amplitudes of the floors and walls of a building often will be at the resonance frequencies of various components of the building.

The vibration of floors and walls may cause perceptible vibration, rattling of items such as windows or dishes on shelves, or a rumble noise. The rumble is the noise radiated from the motion of the room surfaces. In essence, the room surfaces act like a giant loudspeaker causing what is called ground-borne noise.

Ground-borne vibration is almost never annoying to people who are outdoors. Although the motion of the ground may be perceived, without the effects associated with the shaking of a building, the motion does not provoke the same adverse human reaction. In addition, the rumble noise that usually accompanies the building vibration is perceptible only inside buildings.

Vibration can be described in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities (inches/second). Table 3 shows expected responses to different levels of ground-borne vibration.

Table 3
General Human and Structural Responses to Vibration Levels

Response	Peak Vibration Threshold (in./sec. ppv)
Structural damage to commercial structures	6
Structural damage to residential structures	2
Architectural damage to structures (cracking, etc.)	1
General threshold of human annoyance	0.1
Approximate threshold of human perception	0.01

Source: Survey of Earth-borne Vibrations due to Highway Construction and Highway Traffic, Caltrans

Criteria for Acceptable Noise Exposure

City of Sacramento 2030 General Plan

The City of Sacramento General Plan Noise Element establishes 65 dB Ldn as being a normally acceptable exterior noise environment for exterior spaces of transient lodging (hotel) uses. In addition, the City applies the State of California Noise Insulation Standard of 45 dB Ldn for interior spaces of residential uses, including transient lodging facilities.

EC 3.1.1 ***Exterior Noise Standards:*** The City shall require noise mitigation for all development where the projected exterior noise levels exceed those shown in Table 4 (Table EC 1 of the General Plan), to the extent feasible.

Table 4
Exterior Noise Compatibility Standards for Various Land Uses

Land Use Type	Highest Level of Noise Exposure that is Regarded as "Normally Acceptable"[a] (L_{dn}[b] or CNEL[c])
Residential–Low Density Single Family, Duplex, Mobile Homes	60 dBA[d,e]
Residential–Multi-family	65 dBA
Urban Residential Infill[f] and Mixed-Use Projects[g]	70 dBA
Transient Lodging–Motels, Hotels	65 dBA
Schools, Libraries, Churches, Hospitals, Nursing Homes	70 dBA
Auditoriums, Concert Halls, Amphitheaters	Mitigation based on site–specific study
Sports Arena, Outdoor Spectator Sports	Mitigation based on site–specific study
Playgrounds, Neighborhood Parks	70 dBA
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75 dBA
Office Buildings–Business, Commercial, and Professional	70 dBA
Industrial, Manufacturing, Utilities, Agriculture	75 dBA

Source: Governor's Office of Planning and Research, State of California General Plan Guidelines 2003, October 2003
a. As defined in the Guidelines, "Normally Acceptable" means that the "specified land use is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise insulation requirements."
b. L_{dn} or Day Night Average Level is an average 24-hour noise measurement that factors in day and night noise levels.
c. CNEL or Community Noise Equivalent Level measurements are a weighted average of sound levels gathered throughout a 24-hour period.
d. dBA or A-weighted decibel scale is a measurement of noise levels.
e. The exterior noise standard for the residential area west of McClellan Airport known as McClellan Heights/Parker Homes is 65
f. With land use designations of Central Business District, Urban Neighborhood (Low, Medium, or High) Urban Center (Low or High), Urban Corridor (Low or High).
g. All mixed-use projects located anywhere in the City of Sacramento.

EC 3.1.3 ***Interior Noise Standards.*** The City shall require new development to include noise mitigation to assure acceptable interior noise levels appropriate to the land use type: 45 dBA L_{dn} for residential, transient lodgings, hospitals, nursing homes and other uses where people normally sleep; and 45 dBA L_{eq} (peak hour) for office buildings and similar uses.

EC 3.1.4 ***Interior Noise Review for Multiple, Loud Short-Term Events*****.** In cases where new development is proposed in areas subject to frequent, high-noise events (such as aircraft over-flights, or train and truck pass-bys), the City shall evaluate noise impacts on any sensitive receptors from such events when considering whether to approve the development proposal, taking into account potential for sleep disturbance undue annoyance, and interruption in conversation, to ensure that the proposed development is compatible within the context of its surroundings.

EC 3.1.5 ***Interior Vibration Standards.*** The City shall require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby residential and commercial uses based on the current City or Federal Transit Administration (FTA) criteria.

EC 3.1.10 ***Construction Noise*****.** The City shall require development projects subject to discretionary approval to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on these uses to the extent feasible.

Vibration Standards

The City of Sacramento Noise Element Policies EC 3.1.5 pertains to vibration generated by construction. The City of Sacramento has indicated that an appropriate vibration threshold to be applied to highway traffic and railroad operations is 0.5 inches/second peak particle velocity for proposed new residential uses and 0.2 inches/second for historic structures and archaeological sites. Although no specific standard is provided for new transient lodging facilities, it is reasonable to assume that the City's approach to the assessment of vibration impacts at hotels would be similar to the approach for residential uses.

Existing & Future Project-Area Noise Environment

The noise environment in the project vicinity is defined primarily by Highway 50 traffic and Sacramento Regional Transit light rail trains on the railroad tracks to the north. Traffic noise from Highway 50, including the 65th street off-ramp primarily affects the south-facing facades of the proposed hotel projects, while noise from Regional Transit light rail passbys primarily affects the north-facing facades. As a result of the differing areas of noise impact, these two major noise sources are evaluated separately below.

Traffic Noise

The most significant noise source affecting the project site is Highway 50 to the south. The Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA-RD-77-108) with the Calveno vehicle noise emission curves was used to predict Highway 50 traffic noise levels at the project site.

The FHWA Model provides reasonably accurate traffic noise predictions under "ideal" roadway conditions. Ideal conditions are generally considered to be long straight roadway segments with uniform vehicle speeds, a flat roadway surface, good pavement conditions, a statistically large volume of traffic, and an unimpeded view of the roadway from the receiver location. Such conditions are not present at this project site due to Highway 50 being elevated approximately 35 feet relative to the project site. As a result, Bollard Acoustical Consultants, Inc. conducted a calibration of the FHWA Model through site-specific traffic noise level measurements and concurrent traffic counts.

The calibration process was performed at two locations on the project site on December 29, 2014. The measurements were conducted at heights of 5, 15, and 35 feet above the ground to simulate building façade noise exposure at the first, second, and fourth floor of the proposed 4-story hotel. The traffic noise measurement locations are shown in Figure 1 as Sites A & B. The results of the calibration measurements are shown in Table 5. More detailed calibration results are provided in Appendix B.

Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meters equipped with LDL ½" microphones were used for the traffic noise survey. The meters were calibrated before use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 (precision) sound level meters (ANSI S1.4).

Table 5
Highway 50 Traffic Calibration Results
Hampton Inn & Suites – Sacramento, California

Site	Height	Distance to Roadway Centerline	Calibration Offset Applied
A	5 feet – 1st Floor	215 feet	-9 dB
	15 feet – 2nd Floor		-6 dB
	35 feet – 4th Floor		0 dB
B	5 feet – 1st Floor	440 feet	-6 dB
	15 feet – 2nd Floor		-2 dB
	35 feet – 4th Floor		+2 dB

Note: A complete listing of FHWA Model inputs and results is provided in Appendix B.

Site 1 was roughly representative of the noise exposure at the proposed Hampton Inn & Suites, while Site 2 was representative of the proposed second hotel at the site. The Table 5 data indicate that the FHWA Model provided reasonably accurate predictions of Highway 50 traffic noise exposure at the unshielded upper floor locations (35 foot noise measurement height). As expected, at ground floor locations, which are significantly shielded from Highway 50 traffic noise by the edge of the highway embankment, the FHWA Model over-predicted traffic noise levels. As a result of the calibration procedure, the offsets shown in Column 4 of Table 5 were applied to future traffic noise levels predicted at each of the hotel sites.

Future traffic volumes were obtained by conservatively increasing existing Highway 50 traffic volumes (Caltrans 2013 Traffic Counts) by 50%. The day/night distribution and truck percentages were derived from Bollard Acoustical Consultants, Inc. file data and published Caltrans truck traffic counts. Estimated future traffic speed assumptions were based on posted

speed limits and field observations. The FHWA Model inputs are contained in Appendix C. The FHWA model was used with the Appendix C data to predict future traffic noise levels at the site. The results of that analysis are shown in Table 6.

Table 6
Predicted Future Traffic Noise Levels
Hampton Inn & Suites – Sacramento, California

Location	Distance to Roadway Centerline	Noise Level, L_{dn}
Proposed Hampton Inn & Suites		
4th-Floor Building Façade	250 feet	76
3rd-Floor Building Façade		73
2nd-Floor Building Façade		70
1st-Floor Building Façade		67
Pool/Patio Area	270 feet	67
Future Home 2 Suites / Extended Stay		
4th-Floor Building Façade (if applicable)	440 feet	75
3rd-Floor Building Façade		73
2nd-Floor Building Façade		71
1st-Floor Building Façade		67

[1] Predicted distances to noise level contours are from the roadway centerline.

Note: A complete listing of FHWA Model inputs and results is provided in Appendix C.

Traffic Noise at Hampton Inn & Suites Outdoor Pool / Patio Area:

The Table 6 data indicate that the predicted future traffic noise level will exceed City's 65 dB Ldn exterior noise standard at the ground-level outdoor pool area. As a result, it will be necessary to consider noise mitigation measures for this outdoor area.

BAC utilized the FHWA Traffic Noise Model to predict the effectiveness of a solid noise barrier at the boundary of the patio and pool area in reducing future Highway 50 traffic noise levels. The results of that analysis, which are shown in detail in Appendix D, indicate that an 8-foot tall barrier would be required to intercept line of sight to the Highway 50 traffic. The construction of an 8-foot tall barrier around the perimeter of the pool/patio area would reduce future traffic noise exposure to 61 dB Ldn, which would comply with the City of Sacramento 65 dB Ldn exterior noise exposure standard. No additional exterior traffic noise mitigation measures would be required for the pool/patio area of the proposed Hampton Inn & Suites.

Traffic Noise at Interior of Hampton Inn & Suites:

As indicated in Table 6, the future traffic noise exposure at the exterior building facades of the proposed Hampton Inn & Suites Hotel are predicted to range from 67-76 dB Ldn. Given this range of exterior noise levels, building-façade noise reductions ranging from 22-30 dB would be required to ensure compliance with the City of Sacramento 45 dB Ldn interior noise standard.

Standard hotel construction consisting of exterior stucco siding, insulated walls, and dual-pane thermal windows (STC 27-28) provides a minimum 25 dB of exterior to interior traffic noise reduction. Because this project will require guestrooms with Highway 50 traffic noise exposure to provide 22-31 dB traffic noise reduction, improvements in the acoustical performance of exterior window assemblies would be required for the upper floor rooms facing the highway. Specifically, an upgraded window assembly with a minimum STC rating of 33 would be required to ensure compliance with City of Sacramento noise standards at the upper floor facades.

The Hampton Brand Standards require a composite exterior wall STC rating of 50. Such a rating will require significantly upgraded guest room windows (STC 35). As a result, the upgraded window assemblies required to satisfy the Brand Standards would ensure satisfaction with the City's 45 dB Ldn interior noise standard, and no additional building façade improvements would be required for this aspect of this project.

Traffic Noise at Interior of Future Home-2-Suites / Extend Stay:

As indicated in Table 6, the future traffic noise exposure at the exterior building facades of the future Home-2-Suites / Extended Stay hotel are predicted to range from 67-75 dB Ldn. Given this range of exterior noise levels, building-façade noise reductions ranging from 22-30 dB would be required to ensure compliance with the City of Sacramento 45 dB Ldn interior noise standard.

Standard hotel construction consisting of exterior stucco siding, insulated walls, and dual-pane thermal windows (STC 27-28) provides a minimum 25 dB of exterior to interior traffic noise reduction. Because this project will require guestrooms with Highway 50 traffic noise exposure to provide 22-30 dB traffic noise reduction, improvements in the acoustical performance of exterior window assemblies of upper floor rooms facing Highway 50 would be required. Specifically, an upgraded window assembly with a minimum STC rating of 33 would be required to ensure compliance with City of Sacramento noise standards at the upper floor facades. No additional building façade improvements would be required of this future aspect of the project.

Light Rail Noise

The project site is bordered by the existing Sacramento Regional Transit light rail tracks to the north, as indicated on Figure 1. The day/night average noise level (L_{dn}) at the project site resulting from adjacent railroad operations primarily depends on the following variables:

- Number of daily light rail operations.
- Percentage of light rail operations which occur at night (10 pm – 7 am).
- Mean Sound Exposure Level of Light Rail vehicle passbys

According to the Sacramento Regional Transit schedule, there are currently 135 daily light rail train passages which pass the site each day. 26 of the 135 daily trains pass the site during nighttime hours (10 pm – 7 am).

To quantify the noise generation of individual light-rail passbys, single-event noise level monitoring was conducted at three locations on the project site (See Figure 1: Sites 1-3), on January 5, 2015. A total of 18 single event data points were recorded at the three railroad monitoring sites during 11 separate passbys. From this data, a mean Sound Exposure Level (SEL) of 83 dBA at a reference distance of a100 feet from the center of the double set of tracks.

Using the number of daily trains and the computed Mean SEL for light rail passbys, the day/night average noise level (L_{dn}) for isolated railroad activity is calculated using the following equation:

$$L_{dn} = SEL + 10 \log N_{eq} - 49.4 \text{ dB, where:}$$

SEL is the mean measured SEL of the light rail train events, N_{eq} is the sum of the daytime (7 a.m. to 10 p.m.) train events plus 10 times the number of nighttime (10 p.m. to 7 a.m.) train events, and 49.4 is a constant representing 10 times the logarithm of the number of seconds in a day. Based on the above data and formula, the predicted Ldn at the reference distance of 100 feet was computed to be 59 dB Ldn.

The distances from the nearest building façades of the proposed Hampton Inn & Suites and Future Home2 Suites to the center of the light rail tracks would be located approximately 130 and 70 feet, respectively. At those distances, light rail noise would be approximately 57 dB Ldn and 61 dB Ldn, respectively. Give this range of exterior noise levels, building façade noise level reductions of 12 to 16 dB Ldn would be required to ensure compliance with City of Sacramento interior noise level standards. Because the proposed exterior wall facades are anticipated to provide in excess of 30 dB noise reduction, light-rail noise levels within the proposed and future hotel units would be well within compliance of City noise standards.

Regarding single-event noise levels within hotel guest rooms during light rail vehicle passbys, worst-case exterior sound exposure level at the nearest proposed hotel building façade would 85 dB SEL. To reduce interior SEL levels during train passbys to 65 dB SEL or less, a building façade noise level reduction of 20 dB would be required. Because the proposed exterior wall facades are anticipated to provide in excess of 30 dB noise reduction, single-event noise levels

generated by individual light-rail passbys are not anticipated to adversely affect hotel patrons in terms or either sleep disturbance or speech interference. As a result, noise generated by light-light-rail vehicle passbys is predicted to be less than significant for this project.

Existing & Future Project-Area Vibration Environment

During BAC staff site inspections and both traffic and light rail train noise level measurements, no perceptible vibration levels were present. Based on BAC's subjective evaluations at the project site and light rail train vibration data collected at the Curtis Park Village project site in 2014, this analysis concludes that light rail vehicle vibration levels will be below the threshold of perception and well below the City's 0.5 inch/second peak particle velocity criteria for damage to structures at both of the proposed hotel building facades.

Project Construction Noise

During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. Activities involved in construction would generate maximum noise levels, as indicated in Table 7, ranging from 70 to 90 dB at a distance of 50 feet. This noise increase would be of short duration, and would likely occur primarily during daytime hours.

Construction noise levels would likely be very low to imperceptible at the nearest existing residences to the project site due to the substantial distance between the project site and nearest noise-sensitive land uses. In addition, construction would be temporary in nature and is proposed to occur during normal daytime working hours. Because the City of Sacramento exempts construction noise from the Noise Ordinance provisions if construction activity is limited to daytime hours, this impact is considered less than significant.

Future improvements to the 65th Street Light Rail Station would also result in short-term increases in exterior ambient noise levels at the proposed Hampton Inn & Suites, as well as the future Home 2 Suites / Extended Stay Hotel. However, at the noise-sensitive interior areas of these hotels, the building construction is anticipated to reduce construction noise levels to less than significant levels.

Table 7
Typical Construction Equipment Noise

Equipment Description	Maximum Noise Level at 50 feet, dBA
Auger drill rig	85
Backhoe	80
Bar bender	80
Boring jack power unit	80
Chain saw	85
Compactor (ground)	80
Compressor (air)	80
Concrete batch plant	83
Concrete mixer truck	85
Concrete pump truck	82
Concrete saw	90
Crane (mobile or stationary)	85
Dozer	85
Dump truck	84
Excavator	85
Flatbed truck	84
Front end loader	80
Generator (25 kilovoltamperes [kVA] or less)	70
Generator (more than 25 kVA)	82
Grader	85
Hydra break ram	90
Jackhammer	85
Mounted impact hammer (hoe ram)	90
Paver	85
Pickup truck	55
Pneumatic tools	85
Pumps	77
Rock drill	85
Scraper	85
Soil mix drill rig	80
Tractor	84
Vacuum street sweeper	80
Vibratory concrete mixer	80
Welder/Torch	73

Source: Federal Highway Administration 2006.

Increases in Off-Site Traffic Noise Levels Due to the Project

Although the project will generate additional traffic on the local roadway network in the immediate project vicinity, relative to existing traffic volumes on those roadways, and relative to the existing traffic noise generation of Highway 50, the increase in off-site traffic noise levels due to the project is predicted to be negligible. Furthermore, no noise-sensitive land uses were identified adjacent to the roadways which will be primarily utilized by project traffic (65th street and Q Street). As a result, no substantial temporary or permanent increases in off-site traffic noise are anticipated to occur as a result of this project.

Conclusions and Recommendations

This noise study for the proposed Hampton Inn & Suites project in Sacramento, California concludes that the proposed exterior and interior noise level standards of the City of Sacramento would be satisfied provided the following recommendations are implemented.

1. A solid noise barrier should be constructed around the pool and patio areas to a minimum height of eight (8) feet relative to the pool and patio elevations.

2. All guest room windows of both the Hampton Inn & Suites and the future Home 2 Suites with Highway 50 traffic noise exposure should have a minimum STC rating of 33. It is likely that even higher ratings will be required to satisfy the hotel Brand Standards but only STC 33 would be required to ensure compliance with City of Sacramento 45 dB Ldn interior noise level standards.

This concludes BAC's assessment of noise and vibration impacts for the proposed Hampton Inn & Suites project in Sacramento, California. Please contact BAC at (916) 663-0500 or paulb@bacnoise.com with questions or requests for additional information.

Appendix A

Acoustical Terminology

Acoustics The science of sound.

Ambient Noise The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.

Attenuation The reduction of an acoustic signal.

A-Weighting A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.

Decibel or dB Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.

CNEL Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.

Frequency The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.

Ldn Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.

Leq Equivalent or energy-averaged sound level.

Lmax The highest root-mean-square (RMS) sound level measured over a given period of time.

Loudness A subjective term for the sensation of the magnitude of sound.

Masking The amount (or the process) by which the threshold of audibility is for one sound is raised by the presence of another (masking) sound.

Noise Unwanted sound.

Peak Noise The level corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the Maximum level, which is the highest RMS level.

RT_{60} The time it takes reverberant sound to decay by 60 dB once the source has been removed.

Sabin The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 sabin.

SEL A rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy of the event into a 1-s time period.

Threshold of Hearing The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.

Threshold of Pain Approximately 120 dB above the threshold of hearing.

Appendix B-1

FHWA Traffic Noise Prediction Model (FHWA-RD-77-108)
Calibration Worksheet

Project Information:	Job Number:	2014-163
	Project Name:	Hampton Inn and Suites & 65th Street
	Roadway Tested:	Highway 50
	Test Location:	Site A
	Test Date:	December 29, 2014
Weather Conditions:	Temperature (Fahrenheit):	45
	Relative Humidity:	74%
	Wind Speed and Direction:	Calm
	Cloud Cover:	Cloudy
Sound Level Meter:	Sound Level Meter:	LDL Model 820 (BAC #4)
	Calibrator:	LDL Model CAL200
	Meter Calibrated:	Immediately before
	Meter Settings:	A-weighted, slow response
Microphone:	Microphone Location:	Nearest Hampton Façade
	Distance to Centerline (feet):	215
	Microphone Height:	5 feet above ground
	Intervening Ground (Hard or Soft):	**Soft**
	Elevation Relative to Road (feet):	-30
Roadway Condition:	Pavement Type	Asphalt
	Pavement Condition:	Good
	Number of Lanes:	8
	Posted Maximum Speed (mph):	65
Test Parameters:	Test Time:	2:53 PM
	Test Duration (minutes):	15
	Observed Number Automobiles:	3102
	Observed Number Medium Trucks:	60
	Observed Number Heavy Trucks:	70
	Observed Average Speed (mph):	65
Model Calibration:	Measured Average Level (L_{eq}):	64.2
	Level Predicted by FHWA Model:	73.3
	Difference:	***9.1 dB***

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Appendix B-2

FHWA Traffic Noise Prediction Model (FHWA-RD-77-108)
Calibration Worksheet

Project Information:	Job Number:	2014-163
	Project Name:	Hampton Inn and Suites & 65th Street
	Roadway Tested:	Highway 50
	Test Location:	Site A
	Test Date:	December 29, 2014
Weather Conditions:	Temperature (Fahrenheit):	45
	Relative Humidity:	74%
	Wind Speed and Direction:	Calm
	Cloud Cover:	Cloudy
Sound Level Meter:	Sound Level Meter:	LDL Model 820 (BAC #7)
	Calibrator:	LDL Model CAL200
	Meter Calibrated:	Immediately before
	Meter Settings:	A-weighted, slow response
Microphone:	Microphone Location:	Nearest Hampton Façade
	Distance to Centerline (feet):	215
	Microphone Height:	15 feet above ground
	Intervening Ground (Hard or Soft):	**Soft**
	Elevation Relative to Road (feet):	-20
Roadway Condition:	Pavement Type	Asphalt
	Pavement Condition:	Good
	Number of Lanes:	8
	Posted Maximum Speed (mph):	65
Test Parameters:	Test Time:	2:53 PM
	Test Duration (minutes):	15
	Observed Number Automobiles:	3102
	Observed Number Medium Trucks:	60
	Observed Number Heavy Trucks:	70
	Observed Average Speed (mph):	65
Model Calibration:	Measured Average Level (L_{eq}):	67.3
	Level Predicted by FHWA Model:	73.3
	Difference:	***6.0 dB***

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Appendix B-3

FHWA Traffic Noise Prediction Model (FHWA-RD-77-108)
Calibration Worksheet

Project Information:	Job Number:	2014-163
	Project Name:	Hampton Inn and Suites & 65th Street
	Roadway Tested:	Highway 50
	Test Location:	Site A
	Test Date:	December 29, 2014
Weather Conditions:	Temperature (Fahrenheit):	45
	Relative Humidity:	74%
	Wind Speed and Direction:	Calm
	Cloud Cover:	Cloudy
Sound Level Meter:	Sound Level Meter:	LDL Model 820 (BAC #8)
	Calibrator:	LDL Model CAL200
	Meter Calibrated:	Immediately before
	Meter Settings:	A-weighted, slow response
Microphone:	Microphone Location:	Nearest Hampton Façade
	Distance to Centerline (feet):	215
	Microphone Height:	35 feet above ground
	Intervening Ground (Hard or Soft):	**Soft**
	Elevation Relative to Road (feet):	0
Roadway Condition:	Pavement Type	Asphalt
	Pavement Condition:	Good
	Number of Lanes:	8
	Posted Maximum Speed (mph):	65
Test Parameters:	Test Time:	2:53 PM
	Test Duration (minutes):	15
	Observed Number Automobiles:	3102
	Observed Number Medium Trucks:	60
	Observed Number Heavy Trucks:	70
	Observed Average Speed (mph):	65
Model Calibration:	Measured Average Level (L_{eq}):	73.7
	Level Predicted by FHWA Model:	73.3
	Difference:	***-0.4 dB***

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Appendix B-4

FHWA Traffic Noise Prediction Model (FHWA-RD-77-108)
Calibration Worksheet

Project Information:	Job Number:	2014-163
	Project Name:	Hampton Inn and Suites & 65th Street
	Roadway Tested:	Highway 50
	Test Location:	Site B
	Test Date:	December 29, 2014
Weather Conditions:	Temperature (Fahrenheit):	45
	Relative Humidity:	74%
	Wind Speed and Direction:	Calm
	Cloud Cover:	Cloudy
Sound Level Meter:	Sound Level Meter:	LDL Model 820 (BAC #4)
	Calibrator:	LDL Model CAL200
	Meter Calibrated:	Immediately before
	Meter Settings:	A-weighted, slow response
Microphone:	Microphone Location:	Nearest Home2Suites Façade
	Distance to Centerline (feet):	442
	Microphone Height:	5 feet above ground
	Intervening Ground (Hard or Soft):	**Soft**
	Elevation Relative to Road (feet):	-27
Roadway Condition:	Pavement Type	Asphalt
	Pavement Condition:	Good
	Number of Lanes:	8
	Posted Maximum Speed (mph):	65
Test Parameters:	Test Time:	3:30 PM
	Test Duration (minutes):	15
	Observed Number Automobiles:	3388
	Observed Number Medium Trucks:	96
	Observed Number Heavy Trucks:	52
	Observed Average Speed (mph):	65
Model Calibration:	Measured Average Level (L_{eq}):	63.1
	Level Predicted by FHWA Model:	68.9
	Difference:	***5.8 dB***

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Appendix B-5

FHWA Traffic Noise Prediction Model (FHWA-RD-77-108)
Calibration Worksheet

Project Information:	Job Number:	2014-163
	Project Name:	Hampton Inn and Suites & 65th Street
	Roadway Tested:	Highway 50
	Test Location:	Site B
	Test Date:	December 29, 2014
Weather Conditions:	Temperature (Fahrenheit):	45
	Relative Humidity:	74%
	Wind Speed and Direction:	Calm
	Cloud Cover:	Cloudy
Sound Level Meter:	Sound Level Meter:	LDL Model 820 (BAC #7)
	Calibrator:	LDL Model CAL200
	Meter Calibrated:	Immediately before
	Meter Settings:	A-weighted, slow response
Microphone:	Microphone Location:	Nearest Home2Suites Façade
	Distance to Centerline (feet):	442
	Microphone Height:	15 feet above ground
	Intervening Ground (Hard or Soft):	**Soft**
	Elevation Relative to Road (feet):	-17
Roadway Condition:	Pavement Type	Asphalt
	Pavement Condition:	Good
	Number of Lanes:	8
	Posted Maximum Speed (mph):	65
Test Parameters:	Test Time:	3:30 PM
	Test Duration (minutes):	15
	Observed Number Automobiles:	3388
	Observed Number Medium Trucks:	96
	Observed Number Heavy Trucks:	52
	Observed Average Speed (mph):	65
Model Calibration:	Measured Average Level (L_{eq}):	66.9
	Level Predicted by FHWA Model:	68.9
	Difference:	***2.0 dB***

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Appendix B-6

FHWA Traffic Noise Prediction Model (FHWA-RD-77-108)
Calibration Worksheet

Project Information:	Job Number:	2014-163
	Project Name:	Hampton Inn and Suites & 65th Street
	Roadway Tested:	Highway 50
	Test Location:	Site B
	Test Date:	December 29, 2014
Weather Conditions:	Temperature (Fahrenheit):	45
	Relative Humidity:	74%
	Wind Speed and Direction:	Calm
	Cloud Cover:	Cloudy
Sound Level Meter:	Sound Level Meter:	LDL Model 820 (BAC #8)
	Calibrator:	LDL Model CAL200
	Meter Calibrated:	Immediately before
	Meter Settings:	A-weighted, slow response
Microphone:	Microphone Location:	Nearest Home2Suites Façade
	Distance to Centerline (feet):	442
	Microphone Height:	35 feet above ground
	Intervening Ground (Hard or Soft):	**Soft**
	Elevation Relative to Road (feet):	3
Roadway Condition:	Pavement Type	Asphalt
	Pavement Condition:	Good
	Number of Lanes:	8
	Posted Maximum Speed (mph):	65
Test Parameters:	Test Time:	3:30 PM
	Test Duration (minutes):	15
	Observed Number Automobiles:	3388
	Observed Number Medium Trucks:	96
	Observed Number Heavy Trucks:	52
	Observed Average Speed (mph):	65
Model Calibration:	Measured Average Level (L_{eq}):	71.4
	Level Predicted by FHWA Model:	68.9
	Difference:	***-2.5 dB***

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Appendix C-1

FHWA Traffic Noise Prediction Model (FHWA-RD-77-108)
Noise Prediction Worksheet

Project Information:

Job Number: 2014-163
Project Name: Hampton Inn and Suites & 65th Street
Roadway Name: Highway 50 - Hampton

Traffic Data:

Year:	2025
Average Daily Traffic Volume:	288,000
Percent Daytime Traffic:	80
Percent Nighttime Traffic:	20
Percent Medium Trucks (2 axle):	2
Percent Heavy Trucks (3+ axle):	2
Assumed Vehicle Speed (mph):	65
Intervening Ground Type (hard/soft):	**Soft**

Traffic Noise Levels:

				----------L_{dn}, dB----------			
Location:	**Description**	**Distance**	**Offset (dB)**	**Autos**	**Medium Trucks**	**Heavy Trucks**	**Total**
1	4rd Floor	250	0	75	65	68	76
2	3rd Floor	250	-3	72	62	65	73
3	2nd Floor	250	-6	69	59	62	70
4	1st Floor	250	-9	66	56	59	67
5	Pool/Patio	270	-9	66	55	59	67

Traffic Noise Contours (No Calibration Offset):

L_{dn} Contour, dB	Distance from Centerline, (ft)
75	314
70	676
65	1456
60	3138

Appendix C-2

FHWA Traffic Noise Prediction Model (FHWA-RD-77-108)
Noise Prediction Worksheet

Project Information:

Job Number: 2014-163
Project Name: Hampton Inn and Suites & 65th Street
Roadway Name: Highway 50 - Home2Suites

Traffic Data:

Year:	2025
Average Daily Traffic Volume:	288,000
Percent Daytime Traffic:	80
Percent Nighttime Traffic:	20
Percent Medium Trucks (2 axle):	2
Percent Heavy Trucks (3+ axle):	2
Assumed Vehicle Speed (mph):	65
Intervening Ground Type (hard/soft):	**Soft**

Traffic Noise Levels:

				----------L_{dn}, dB----------			
Location:	**Description**	**Distance**	**Offset (dB)**	**Autos**	**Medium Trucks**	**Heavy Trucks**	**Total**
1	4th Floor (if applicable)	440	2	74	63	67	75
2	3rd Floor	440	0	72	61	65	73
3	2nd Floor	440	-2	70	59	63	71
4	1st Floor	440	-6	66	55	59	67

Traffic Noise Contours (No Calibration Offset):

L_{dn} Contour, dB	Distance from Centerline, (ft)
75	314
70	676
65	1456
60	3138

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Appendix D

FHWA Traffic Noise Prediction Model (FHWA-RD-77-108)
Noise Barrier Effectiveness Prediction Worksheet

Project Information:

Job Number: 2014-163
Project Name: Hampton Inn and Suites & 65th Street
Roadway Name: Highway 50 - Hampton
Location(s): Pool/Patio Area

Noise Level Data:

Year: 2025
Auto L_{dn}, dB: 66
Medium Truck L_{dn}, dB: 55
Heavy Truck L_{dn}, dB: 59

Site Geometry:

Receiver Description: Pool/Patio Area
Centerline to Barrier Distance (C_1): 260
Barrier to Receiver Distance (C_2): 20
Automobile Elevation: 25
Medium Truck Elevation: 27
Heavy Truck Elevation: 33
Pad/Ground Elevation at Receiver: 0
Receiver Elevation[1]: 5
Base of Barrier Elevation: 0
Starting Barrier Height 0

Barrier Effectiveness:

Top of Barrier Elevation (ft)	Barrier Height[2] (ft)	L_{dn}, dB Autos	Medium Trucks	Heavy Trucks	Total	Barrier Breaks Line of Sight to… Autos?	Medium Trucks?	Heavy Trucks?
0	0	66	55	59	**67**	No	No	No
1	1	66	55	59	**67**	No	No	No
2	2	66	55	59	**67**	No	No	No
3	3	65	54	59	**66**	No	No	No
4	4	64	53	58	**65**	No	No	No
5	5	62	51	56	**63**	No	No	No
6	6	61	50	54	**62**	No	No	No
7	7	61	50	54	**62**	Yes	Yes	No
8	8	60	50	54	**62**	Yes	Yes	Yes

Notes: 1.Standard receiver elevation is five feet above grade/pad elevations at the receiver location(s)

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