

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: DS Ventures Project

Background Information

Nearest Air Monitoring Station measuring CO: Reseda
 Background 1-hour CO Concentration (ppm): 5.0
 Background 8-hour CO Concentration (ppm): 3.5
 Persistence Factor: 0.6
 Analysis Year: 2007

Roadway Data

Intersection: Dumetz Road and San Feliciano Drive
 Analysis Condition: Future (2007) Traffic Conditions (Without Gated Access)

Roadway Type	No. of Lanes	Average Speed	
		A.M.	P.M.
North-South Roadway: San Feliciano Drive	At Grade	2	5
East-West Roadway: Dumetz Road	At Grade	2	5

A.M. Peak Hour Traffic Volumes

N	0	122	54	E
W	<	v	>	E
0	^		^	80
0	>		<	0
0	v		v	76
S	0	212	183	

P.M. Peak Hour Traffic Volumes

N	0	125	74	E
W	<	v	>	E
0	^		^	56
0	>		<	0
0	v		v	131
S	0	124	104	

Highest Traffic Volumes (Vehicles per Hour)

N-S Road:	593	N-S Road:	484
E-W Road:	393	E-W Road:	365

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	E.O.R.	25 Feet	50 Feet	100 Feet	Traffic Volume	Emission Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	14.0	7.6	5.7	4.0	593	10.47	0.87	0.47	0.35	0.25
East-West Road	3.7	2.7	2.2	1.7	393	10.47	0.15	0.11	0.09	0.07

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 Persistence Factor: 0.6
 Analysis Year: 2007

Roadway Data

Intersection: Dumetz Road and Topanga Canyon Boulevard
 Analysis Condition: Future (2007) Traffic Analysis (Without Gated Access)

	Roadway Type	No of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway: Topanga Canyon Boulevard	At Grade	2	15	10
East-West Roadway: Dumetz Road	At Grade	4	15	10

A.M. Peak Hour Traffic Volumes

N	35	1,283	59	E
W	<	v	>	
90 ^				143
131 >				116
16 v				227
	<	^	>	
S	3	1,142	265	

P.M. Peak Hour Traffic Volumes

N	69	1,270	61	E
W	<	v	>	
75 ^				103
84 >				85
44 v				225
	<	^	>	
S	10	1,615	155	

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 2,936
 E-W Road: 941

N-S Road: 3,319
 E-W Road: 713

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	E.O.R.	25 Feet	50 Feet	100 Feet	Traffic Volume	Emission Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	14.0	7.6	5.7	4.0	2,936	6.97	2.86	1.55	1.17	0.82
East-West Road	3.3	2.6	2.2	1.7	941	6.97	0.22	0.17	0.14	0.11

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 Background 1-hour CO Concentration (ppm): 5.0
 Background 8-hour CO Concentration (ppm): 3.5
 Persistence Factor: 0.6
 Analysis Year: 2007

Roadway Data

Intersection: Dumetz Road and Topanga Canyon Boulevard
 Analysis Condition: Future (2007) Traffic Analysis (With Gated Access)

	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway: Topanga Canyon Boulevard	At Grade	2	15	10
East-West Roadway: Dumetz Road	At Grade	4	15	10

A.M. Peak Hour Traffic Volumes

N	35	1,283	59	E
W	<	v	>	
90 ^				143
131 >				116
16 v				227
	<	^	>	
S	3	1,142	265	

P.M. Peak Hour Traffic Volumes

N	69	1,270	61	E
W	<	v	>	
75 ^				103
84 >				85
44 v				225
	<	^	>	
S	10	1,615	155	

Highest Traffic Volumes (Vehicles per Hour)

N-S Road:	2,936	N-S Road:	3,319
E-W Road:	941	E-W Road:	713

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	E.O.R.	25 Feet	50 Feet	100 Feet	Traffic Volume	Emission Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	14.0	7.6	5.7	4.0	2,936	6.97	2.86	1.55	1.17	0.82
East-West Road	3.3	2.6	2.2	1.7	941	6.97	0.22	0.17	0.14	0.11

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Background Information

Nearest Air Monitoring Station measuring CO: Reseda
 Background 1-hour CO Concentration (ppm): 5.0
 Background 8-hour CO Concentration (ppm): 3.5
 Persistence Factor: 0.6
 Analysis Year: 2007

Roadway Data

Intersection: Mulholland Drive and Mulholland Highway
 Analysis Condition: Future (2007) Traffic Conditions (Without Gated Access)

Roadway Type	No. of Lanes	Average Speed	
		A.M.	P.M.
North-South Roadway: Mulholland Highway	At Grade	4	15
East-West Roadway: Mulholland Drive	At Grade	4	20

A.M. Peak Hour Traffic Volumes

N	0	0	0	E
W	<	v	>	
0	^		^	0
399	>		<	293
383	v		v	597
	<	^	>	
	220	0	712	
S				

P.M. Peak Hour Traffic Volumes

N	0	0	0	E
W	<	v	>	
0	^		^	0
356	>		<	331
189	v		v	571
	<	^	>	
	160	0	590	
S				

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 1,912
 E-W Road: 2,001

N-S Road: 1,510
 E-W Road: 1,848

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	E.O.R.	25 Feet	50 Feet	100 Feet	Traffic Volume	Emission Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	3.3	2.6	2.2	1.7	1,912	6.97	0.44	0.35	0.29	0.23
East-West Road	11.9	7.0	5.4	3.8	2,001	5.98	1.42	0.84	0.65	0.45

SIMPLIFIED CALINE4 CARBON MONOXIDE ANALYSIS

Project Title: DS Ventures Project

Background Information

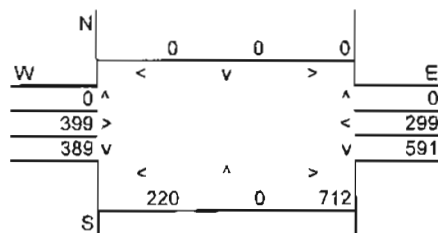
Nearest Air Monitoring Station measuring CO: Reseda
 Background 1-hour CO Concentration (ppm): 5.0
 Background 8-hour CO Concentration (ppm): 3.5
 Persistence Factor: 0.6
 Analysis Year: 2007

Roadway Data

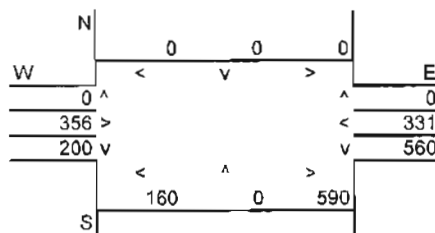
Intersection: Mulholland Drive and Mulholland Highway
 Analysis Condition: Future (2007) Traffic Conditions (With Gated Access)

Roadway Type	No. of Lanes	Average Speed	
		A.M.	P.M.
North-South Roadway: Mulholland Highway	At Grade	4	15
East-West Roadway: Mulholland Drive	At Grade	4	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 1,912
 E-W Road: 2,001

N-S Road: 1,510
 E-W Road: 1,837

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	E.O.R.	25 Feet	50 Feet	100 Feet	Traffic Volume	Emission Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	3.3	2.6	2.2	1.7	1,912	6.97	0.44	0.35	0.29	0.23
East-West Road	11.9	7.0	5.4	3.8	2,001	5.98	1.42	0.84	0.65	0.45

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 Background 8-hour CO Concentration (ppm): 3.5
 Persistence Factor: 0.6
 Analysis Year: 2007

Roadway Data

Intersection: Mulholland Drive and San Feliciano Drive
 Analysis Condition: Future (2007) Traffic Conditions (With Gated Access)

Roadway Type	No. of Lanes	Average Speed	
		A.M.	P.M.
North-South Roadway: San Feliciano Drive	At Grade	2	5
East-West Roadway: Mulholland Drive	At Grade	4	20

A.M. Peak Hour Traffic Volumes

N	129	0	80	E
W	<	v	>	E
107	^		^	40
731	>		<	465
0	v		v	0
S	<	^	>	S
0		0	0	0

P.M. Peak Hour Traffic Volumes

N	85	0	61	E
W	<	v	>	E
99	^		^	68
508	>		<	519
0	v		v	0
S	<	^	>	S
0		0	0	0

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 356
 E-W Road: 1,432

N-S Road: 313
 E-W Road: 1,211

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	E.O.R.	25 Feet	50 Feet	100 Feet	Traffic Volume	Emission Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	3.7	2.7	2.2	1.7	356	10.47	0.14	0.10	0.08	0.06
East-West Road	11.9	7.0	5.4	3.8	1,432	5.98	1.02	0.60	0.46	0.33

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Background Information

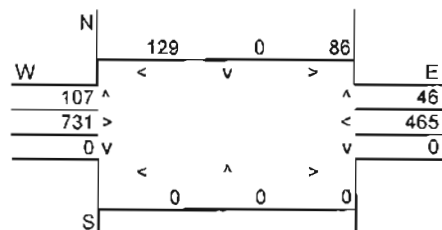
Nearest Air Monitoring Station measuring CO: Reseda
 Background 1-hour CO Concentration (ppm): 5.0
 Background 8-hour CO Concentration (ppm): 3.5
 Persistence Factor: 0.6
 Analysis Year: 2007

Roadway Data

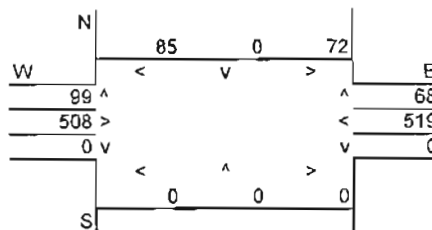
Intersection: Mulholland Drive and San Feliciano Drive
 Analysis Condition: Future (2007) Traffic Conditions (With Gated Access)

Roadway Type	No. of Lanes	Average Speed	
		A.M.	P.M.
North-South Roadway: San Feliciano Drive	At Grade	2	5
East-West Roadway: Mulholland Drive	At Grade	4	20
		20	20

A.M. Peak Hour Traffic Volumes



P.M. Peak Hour Traffic Volumes



Highest Traffic Volumes (Vehicles per Hour)

N-S Road:	368	N-S Road:	324
E-W Road:	1,432	E-W Road:	1,211

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	E.O.R.	25 Feet	50 Feet	100 Feet	Traffic Volume	Emission Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	3.7	2.7	2.2	1.7	368	10.47	0.14	0.10	0.08	0.07
East-West Road	11.9	7.0	5.4	3.8	1,432	5.98	1.02	0.60	0.46	0.33

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 Persistence Factor: 0.6
 Analysis Year: 2007

Roadway Data

Intersection: Mulholland Drive and Topanga Canyon Boulevard
 Analysis Condition: Future (2007) Traffic Conditions (Without Gated Access)

	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway: Topanga Canyon Boulevard	At Grade	4	15	15
East-West Roadway: Mulholland Drive	At Grade	2	15	15

A.M. Peak Hour Traffic Volumes

N	699	842	20	E
W	<	v	>	
822 ^				53
23 >				74
163 v				30
	<	^	>	
	137	592	7	
S				

P.M. Peak Hour Traffic Volumes

N	750	700	47	E
W	<	v	>	
780 ^				63
65 >				56
132 v				18
	<	^	>	
	164	1,000	25	
S				

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 3,028
 E-W Road: 1,918

N-S Road: 3,340
 E-W Road: 1,947

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

Roadway	A ₁	A ₂	A ₃	A ₄	B	C	Estimated CO Concentrations			
	E.O.R.	25 Feet	50 Feet	100 Feet	Traffic Volume	Emission Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	11.9	7.0	5.4	3.8	3,028	6.97	2.51	1.48	1.14	0.80
East-West Road	3.7	2.7	2.2	1.7	1,918	6.97	0.49	0.36	0.29	0.23

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	Roadway Type	No. of Lanes	Average Speed	
			A.M.	P.M.
North-South Roadway: Topanga Canyon Boulevard	At Grade	4	15	15
East-West Roadway: Mulholland Drive	At Grade	2	15	15

A.M. Peak Hour Traffic Volumes

N	699	842	20	E
W	<	v	>	
822 ^				53
23 >				74
163 v				30
	<	^	>	
	137	592	7	
S				

P.M. Peak Hour Traffic Volumes

N	750	700	47	E
W	<	v	>	
780 ^				63
65 >				56
132 v				18
	<	^	>	
	164	1,000	25	
S				

Highest Traffic Volumes (Vehicles per Hour)

N-S Road: 3,028
 E-W Road: 1,918

N-S Road: 3,340
 E-W Road: 1,947

Roadway CO Contributions and Concentrations

Emissions = (A x B x C) / 100,000¹

	A ₁	A ₂	A ₃	A ₄	B	C				
	Reference CO Concentrations				Traffic	Emission	Estimated CO Concentrations			
Roadway	E.O.R.	25 Feet	50 Feet	100 Feet	Volume	Factors ²	E.O.R.	25 Feet	50 Feet	100 Feet
A.M. Peak Traffic Hour										
North-South Road	11.9	7.0	5.4	3.8	3,028	6.97	2.51	1.48	1.14	0.80
East-West Road	3.7	2.7	2.2	1.7	1,918	6.97	0.49	0.36	0.29	0.23

URBEMIS 2002 For Windows 8.7.0

File Name: F:\MSWord 2004 Projects\DS Ventures-Woodland Hills\Air Quality Data\URBEMIS Run\Construction,
 Project Name: DS Ventures Project Emissions
 Project Location: South Coast Air Basin (Los Angeles area)
 -Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
 (Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
** 2006 **							
TOTALS (lbs/day, unmitigated)	4.65	33.55	36.63	0.01	1.63	1.37	0.26
TOTALS (lbs/day, mitigated)	4.65	33.55	36.63	0.01	1.63	1.37	0.26
** 2007 **							
TOTALS (lbs/day, unmitigated)	47.48	31.34	42.77	0.00	39.20	1.19	38.01
TOTALS (lbs/day, mitigated)	47.48	31.30	41.22	0.00	1.25	1.19	0.06
** 2008 **							
TOTALS (lbs/day, unmitigated)	5.06	30.85	39.88	0.00	1.10	1.07	0.03
TOTALS (lbs/day, mitigated)	5.06	30.85	39.88	0.00	1.10	1.07	0.03

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	2.36	0.47	1.38	0.01	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	2.93	2.34	34.45	0.02	3.57
TOTALS (lbs/day, mitigated)	2.81	2.22	32.72	0.02	3.40

TOTAL OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day, unmitigated)	5.28	2.81	35.83	0.03	3.58

With Area and Operational Mitigation must be turned on to get a combined mitigated total.

DETAIL REPORT
(Pounds/Day - Summer)

INSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Case 3 - Building Construction							
1g Const Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
1g Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2h Coatings Off-Gas	0.00	-	-	-	-	-	-
2h Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3hault Off-Gas	0.00	-	-	-	-	-	-
3hault Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
3hault On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3hault Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max lbs/day all phases	4.65	33.55	36.63	0.01	1.63	1.37	0.26

Case 3 - Building Construction							
kg Const Off-Road Diesel	4.66	31.12	37.40	-	1.19	1.19	0.00
kg Const Worker Trips	0.16	0.09	1.91	0.00	0.03	0.00	0.03
kg Coatings Off-Gas	42.50	-	-	-	-	-	-
kg Coatings Worker Trips	0.16	0.09	1.91	0.00	0.03	0.00	0.03
kg Off-Gas	0.00	-	-	-	-	-	-
kg Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
kg On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
kg Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	47.48	31.30	41.22	0.00	1.25	1.19	0.00

Max lbs/day all phases	47.48	31.34	42.77	0.00	39.20	1.19	38.01
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✧ 2008 ✧

Use 1 - Demolition Emissions

Initiative Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Use 2 - Site Grading Emissions

Initiative Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Use 3 - Building Construction

Off-Road Diesel	4.66	30.00	37.95	-	1.05	1.05	0.00
Worker Trips	0.15	0.08	1.78	0.00	0.03	0.00	0.03
Coatings Off-Gas	0.00	-	-	-	-	-	-
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.21	-	-	-	-	-	-
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.04	0.76	0.15	0.00	0.02	0.02	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	5.06	30.85	39.88	0.00	1.10	1.07	0.03
Max lbs/day all phases	5.06	30.85	39.88	0.00	1.10	1.07	0.03

Use 1 - Demolition Assumptions

Start Month/Year for Phase 1: Dec '06
 Use 1 Duration: 1 months
 Building Volume Total (cubic feet): 3000
 Building Volume Daily (cubic feet): 600.499248
 On-Road Truck Travel (VMT): 19.2
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Excavators	180	0.580	6.0
1	Rubber Tired Dozers	352	0.590	5.0
1	Skid Steer Loaders	62	0.515	6.0
1	Tractor/Loaders/Backhoes	79	0.465	6.0

Use 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jan '07
 Use 2 Duration: 2 months
 On-Road Truck Travel (VMT): 0
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	6.0
1	Off Highway Trucks	417	0.490	4.0
1	Rubber Tired Loaders	165	0.465	6.0
1	Skid Steer Loaders	62	0.515	6.0
1	Tractor/Loaders/Backhoes	79	0.465	6.0

Use 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Mar '07
 Use 3 Duration: 21 months
 Start Month/Year for SubPhase Building: Mar '07
 SubPhase Building Duration: 10.2 months
 Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Off Highway Tractors	255	0.410	6.0
1	Pavers	132	0.590	6.0
1	Rough Terrain Forklifts	94	0.475	6.0
1	Rubber Tired Loaders	165	0.465	6.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0

Start Month/Year for SubPhase Architectural Coatings: Dec '07

SubPhase Architectural Coatings Duration: 1 months

Start Month/Year for SubPhase Asphalt: Jan '08

SubPhase Asphalt Duration: 0.5 months

Acres to be Paved: 0.87

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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EMISSION ESTIMATES MITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
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phalt Off-Gas	0.21	-	-	-	-	-	-
phalt Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
phalt On-Road Diesel	0.04	0.76	0.15	0.00	0.02	0.02	0.00
phalt Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	5.06	30.85	39.88	0.00	1.10	1.07	0.03
Max lbs/day all phases	5.06	30.85	39.88	0.00	1.10	1.07	0.03

Construction-Related Mitigation Measures

Phase 2: Soil Disturbance: Apply soil stabilizers to inactive areas
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Soil Disturbance: Replace ground cover in disturbed areas quickly
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 15.0%)
Phase 2: Soil Disturbance: Water exposed surfaces - 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 34.0%)
Phase 2: Stockpiles: Cover all stock piles with tarps
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 9.5%)
Phase 2: Unpaved Roads: Water all haul roads 2x daily
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 30.0%)
Phase 2: Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 40.0%)

Phase 1 - Demolition Assumptions

Start Month/Year for Phase 1: Dec '06
Phase 1 Duration: 1 months
Building Volume Total (cubic feet): 3000
Building Volume Daily (cubic feet): 600.499248
On-Road Truck Travel (VMT): 19.2
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Excavators	180	0.580	6.0
1	Rubber Tired Dozers	352	0.590	5.0
1	Skid Steer Loaders	62	0.515	6.0
1	Tractor/Loaders/Backhoes	79	0.465	6.0

Phase 2 - Site Grading Assumptions

Start Month/Year for Phase 2: Jan '07
Phase 2 Duration: 2 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	6.0
1	Off Highway Trucks	417	0.490	4.0
1	Rubber Tired Loaders	165	0.465	6.0
1	Skid Steer Loaders	62	0.515	6.0
1	Tractor/Loaders/Backhoes	79	0.465	6.0

Phase 3 - Building Construction Assumptions

Start Month/Year for Phase 3: Mar '07
Phase 3 Duration: 21 months
Start Month/Year for SubPhase Building: Mar '07
SubPhase Building Duration: 10.2 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Off Highway Tractors	255	0.410	6.0
1	Pavers	132	0.590	6.0
1	Rough Terrain Forklifts	94	0.475	6.0
1	Rubber Tired Loaders	165	0.465	6.0
1	Tractor/Loaders/Backhoes	79	0.465	8.0

Start Month/Year for SubPhase Architectural Coatings: Dec '07

SubPhase Architectural Coatings Duration: 1 months

Start Month/Year for SubPhase Asphalt: Jan '08

SubPhase Asphalt Duration: 0.5 months

Acres to be Paved: 0.87

Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
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EA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)					
Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.04	0.46	0.20	0	0.00
Earth - No summer emissions					
Landscaping	0.16	0.00	1.18	0.01	0.00
Consumer Prdcts	1.81	-	-	-	-
Architectural Coatings	0.35	-	-	-	-
TOTALS (lbs/day, unmitigated)	2.36	0.47	1.38	0.01	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	2.93	2.34	34.45	0.02	3.57
TOTAL EMISSIONS (lbs/day)	2.93	2.34	34.45	0.02	3.57

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2009 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Land Use Type	Acreage	Trip Rate	No. Units	Total Trips
Single family housing	6.19	9.57 trips/dwelling unit	37.00	354.09
Sum of Total Trips				354.09
Total Vehicle Miles Traveled				2,369.04

Vehicle Assumptions:

Vehicle Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.14	1.30	98.40	0.30
Light Truck < 3,750 lbs	16.82	2.60	95.40	2.00
Light Truck 3,751- 5,750	17.93	1.20	98.10	0.70
Light Truck 5,751- 8,500	0.30	1.40	95.90	2.70
Medium-Heavy 8,501-10,000	0.05	0.00	81.80	18.20
Medium-Heavy 10,001-14,000	0.01	0.00	66.70	33.30
Light-Heavy 14,001-33,000	0.04	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.04	0.00	11.10	88.90
Flat Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Van Bus	0.22	0.00	50.00	50.00
Motorcycle	1.78	75.00	25.00	0.00
School Bus	0.11	0.00	0.00	100.00
Motor Home	1.56	7.10	85.70	7.20

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Average Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Typical Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Typical Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
Number of Trips - Residential	20.0	37.0	43.0			

MITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
Single family housing	2.81	2.22	32.72	0.02	3.40
ANNUAL EMISSIONS (lbs/day)	2.81	2.22	32.72	0.02	3.40
PERCENTAGE REDUCTION %	4	5	5	5	5

Does not include correction for passby trips.

Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2009 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Land Use Type	Acreage	Trip Rate	No. Units	Total Trips
Single family housing	6.19	9.09 trips/dwelling unit	37.00	336.31
Sum of Total Trips				336.31
Total Vehicle Miles Traveled				2,250.06

Vehicle Assumptions:

Vehicle Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	61.14	1.30	98.40	0.30
Light Truck < 3,750 lbs	16.82	2.60	95.40	2.00
Light Truck 3,751- 5,750	17.93	1.20	98.10	0.70
Medium Truck 5,751- 8,500	0.30	1.40	95.90	2.70
Medium-Heavy 8,501-10,000	0.05	0.00	81.80	18.20
Medium-Heavy 10,001-14,000	0.01	0.00	66.70	33.30
Medium-Heavy 14,001-33,000	0.04	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.04	0.00	11.10	88.90
Heavy Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Van Bus	0.22	0.00	50.00	50.00
Motorcycle	1.78	75.00	25.00	0.00
School Bus	0.11	0.00	0.00	100.00
Motor Home	1.56	7.10	85.70	7.20

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Van Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Car Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Top Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
Number of Trips - Residential	20.0	37.0	43.0			

MITIGATION OPTIONS SELECTED

Identical Mitigation Measures

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Identical Local-Serving Retail Mitigation

Percent Reduction in Trips is 2% (calculated as a % of 9.57 trips/day)
Note that the above percent is applied to a baseline of 9.57 and that product is
Subtracted from the Unmitigated Trips
Outputs Selected:
- Presence of Local-Serving Retail checkbox was selected.

Identical Transit Service Mitigation

Percent Reduction in Trips is 0.02% (calculated as a % of 9.57 trips/day)
Note that the above percent is applied to a baseline of 9.57 and that product is
Subtracted from the Unmitigated Trips
Outputs Selected:
- Number of Daily Weekday Buses Stopping Within 1/4 Mile of Site is 0
- Number of Daily Rail or Bus Rapid Transit Stops Within 1/2 Mile of Site is 1
- Number of Dedicated Daily Shuttle Trips is 0

Identical Pedestrian/Bicycle Friendliness Mitigation

Percent Reduction in Trips is 3% (calculated as a % of 9.57 trips/day)
Note that the above percent is applied to a baseline of 9.57 and that product is
Subtracted from the Unmitigated Trips
Outputs Selected:
- Number of Intersections per Square Mile is 0
- Percent of Streets with Sidewalks on One Side is 0%
- Percent of Streets with Sidewalks on Both Sides is 100%
- Percent of Arterials/Collectors with Bike Lanes or where Suitable,
Direct Parallel Routes Exist is 0%

anges made to the default values for Land Use Trip Percentages

» Trip Rate and/or Acreage values for Single family housing
 ive changed from the defaults 9.57/12.33 to 9.57/6.19

anges made to the default values for Construction

» user has overridden the Default Phase Lengths
 »olition Truck Haul Capacity changed from 20 to 14
 »olition Truck Hauling Miles/Round Trip changed from 30 to 12
 »hitectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.0052
 »hitectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.0052
 »se 2 mitigation measure Soil Disturbance: Apply soil stabilizers to inactive areas
 has been changed from off to on.
 »se 2 mitigation measure Soil Disturbance: Replace ground cover in disturbed areas quickly
 has been changed from off to on.
 »se 2 mitigation measure Soil Disturbance: Water exposed surfaces ~ 2x daily
 has been changed from off to on.
 »se 2 mitigation measure Stockpiles: Cover all stock piles with tarps
 has been changed from off to on.
 »se 2 mitigation measure Unpaved Roads: Water all haul roads 2x daily
 has been changed from off to on.
 »se 2 mitigation measure Unpaved Roads: Reduce speed on unpaved roads to < 15 mph
 has been changed from off to on.

anges made to the default values for Area

» hearth option switch changed from on to off.
 » landscape year changed from 2005 to 2009.
 » residential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0052.
 » nonresidential Arch. Coatings ROG emission factor changed from 0.0185 to 0.0052.

anges made to the default values for Operations

» mitigation option switch changed from off to on.
 » light auto percentage changed from 54.9 to 61.14.
 » light truck < 3750 lbs percentage changed from 15.1 to 16.82.
 » light truck 3751-5750 percentage changed from 16.1 to 17.93.
 » med truck 5751-8500 percentage changed from 7.3 to 0.30.
 » lite-heavy truck 8501-10000 percentage changed from 1.1 to 0.05.
 » lite-heavy truck 10001-14000 percentage changed from 0.3 to 0.01.
 » med-heavy truck 14001-33000 percentage changed from 1.0 to 0.04.
 » heavy-heavy truck 33001-60000 percentage changed from 0.9 to 0.04.
 » urban bus percentage changed from 0.2 to 0.22.
 » motorcycle percentage changed from 1.6 to 1.78.
 » school bus percentage changed from 0.1 to 0.11.
 » motorhome percentage changed from 1.4 to 1.56.
 » operational emission year changed from 2005 to 2009.
 » Res and Non-Res Local-Serving Retail Mitigation changed from off to on.
 » Res and Non-Res Transit Service Mitigation changed from off to on.
 » Res and Non-Res Ped/Bike Mitigation changed from off to on.

EXPLANATION OF CHANGES MADE TO DEFAULT SETTINGS IN URBEMIS 2002

Project Name: DS Ventures Project
 Analysis Scenario: Future Operational Emissions

The following pages include the printed results of the air pollutant emissions modeling for one of the land use components of the proposed project. The air emissions modeling was conducted using the URBEMIS 2002 for Windows computer program developed for the Yolo-Solano Air Quality Management District in May 2003. URBEMIS 2002 is programmed with EMFAC 2002 emission factors developed by the California Air Resources

As part of this analysis, changes have been made to several of the default values programmed into URBEMIS 2002. These changes were made to more accurately reflect the nature of the proposed land use. Each of

Vehicle Trip Rates

The default vehicle trip rate values were changed to be consistent with the traffic impact analysis prepared

Vehicle Fleet Mix

URBEMIS 2002 is programmed with the following state-wide average vehicle fleet mix:

State-Wide Vehicle Type	Total	
Automobiles	54.9%	
Light-Duty Trucks <3,750 pounds	15.1%	
Light-Duty Trucks 3,751-5,750 pounds	16.1%	
Medium-Duty Trucks 5,751-8,500 pounds	7.3%	
Light-Heavy-Duty Trucks 8,501-10,000 pounds	1.1%	} 10.60% Total Trucks
Light-Heavy-Duty Trucks 10,001-14,000 pounds	0.3%	
Medium-Heavy-Duty Trucks 14,001-33,000 pounds	1.0%	
Heavy-Heavy-Duty Trucks 33,001-60,000 pounds	0.9%	
Line-Haul Vehicles	0.0%	
Urban Buses	0.2%	
Motorcycles	1.6%	
School Buses	0.1%	
Motor Homes	1.4%	

However, this state-wide average fleet mix is not appropriate for the majority of land use analyses. The project land use assessed in this analysis is identified below along with the total percentage of trucks (medium and heavy) that are expected for this land use. The following vehicle mix was calculated based on the percentage of trucks associated with this land use. The percentage of trucks for each land use were

ITE Code	Project Land Use:	Truck %	ADT	Truck #
210	Single Family	0.44%	354	2
0			0	0
0			0	0
0			0	0
0			0	0
0			0	0
0			0	0
0			0	0
0			0	0
0			0	0
0			0	0
0			0	0
Project Totals:			354	2
Project Truck %:		0.44%		

Vehicle Type Total