Table 1. Measured Existing Sound Levels (dBA)

SLM Location	SLM Period	Range of Measured Hourly Level		
		L_{eq}	L_{25}	L_{max}
SLM-C1 SR-169	2:45 PM March 18, 2009	66.4	68.0	79.2
SLM-C2 Lake Sawyer Road	2:01 PM March 18, 2009	60.4	53.8	78.4
SLM-C3 Green Valley Road	3:01 PM June 30, 2008	60.4	53.0	77.8

Sound level measurement locations and sound source descriptions:

SLM-C1 was measured along SR-169, 50 feet from the edge of pavement, north of the Diamond Glen residential development in Black Diamond. This 15 minute measurement began March 18, 2009 at 2:45 PM. Because the major source of noise at this location was traffic on SR-169, this measurement is representative of midday traffic, traveling 50 mph, on SR-169.

SLM-C2 was taken 50 feet west of the center of Lake Sawyer Road, south of the Sawyer Woods Elementary School. This 15 minute measurement began March 18, 2009 at 2:01 PM. Major sources of noise observed during the measurement included traffic on Lake Sawyer Road and aircraft. This measurement represents sound levels along Lake Sawyer Road, near the elementary school.

SLM-C3 was measured June 30, 2008 at 3:01 PM and represents noise along Green Valley Road. This measurement was taken 50 feet from the edge of Green Valley Road. Major sources of noise observed included traffic on Green Valley Road and aircraft.

NOTES:

The L_{eq} is the "energy average" sound level, a constant sound with the same sound energy as the actual fluctuating sound. This metric is used extensively in characterizing and describing sound levels.

The L_{25} is the sound level exceeded 25% of the time, in this case during a 15-minute period. These values can be compared with the 60-dBA L_{25} noise limit for residential locations.

The L_{max} is the maximum sound level recorded during the measurement period. The L_{max} is a useful metric for determining the contribution from sources which emit short-term, high energy sounds.

Source: ENVIRON International Corporation

Table 2. TNM Lookup Setup and Results

TNM Location	Analysis Scenario	Noise Source	Direction	Distance	Total Volume	Heavy Truck %	Automotive vph	Heavy Truck vph	Speed	Calculated dBA	Total Calculated Traffic Noise
TNM1	Existing	SR169, N of RR Ave	NB	44	242	5%	230	12	35	61	**65.2**
			SB	56	632	3%	613	19	35	63.2	
	Baseline		NB	44	316	5%	300	16	35	62.2	**66.4**
			SB	56	826	3%	801	25	35	64.3	
	Cumulative		NB	44	973	5%	924	49	35	67	**70.2**
			SB	56	1,668	3%	1618	50	35	67.4	
TNM3	Existing	SR169, N of Summit	NB	63	292	5%	277	15	35	60.1	**65.3**
			SB	51	532	5%	505	27	35	63.8	
	Baseline		NB	63	385	5%	366	19	35	61.2	**66.6**
			SB	51	731	5%	694	37	35	65.1	
	Cumulative		NB	63	1,337	5%	1270	67	35	66.6	**71.6**
			SB	51	2,197	5%	2087	110	35	69.9	
	Alternative		NB	63	1,336	5%	1269	67	35	66.6	**71.6**
			SB	51	2,198	5%	2088	110	35	69.9	
TNM4	Existing	SR169, S of Jones Lake	NB	96	238	5%	226	12	50	61.1	**65.9**
			SB	108	602	3%	584	18	50	64.1	
	Baseline		NB	96	311	5%	295	16	50	62.3	**67.0**
			SB	108	787	3%	763	24	50	65.2	
	Cumulative		NB	96	939	5%	892	47	50	67	**70.7**
			SB	108	1,549	3%	1503	46	50	68.2	
TNM5	Existing	Roberts Dr, W of SR 169	EB	66	99	6%	93	6	35	55.5	**57.8**
			WB	54	108	0%	108	0	35	53.9	
	Baseline		EB	66	134	6%	126	8	35	56.7	**59.0**
			WB	54	141	0%	141	0	35	55.1	
	Cumulative		EB	66	279	6%	262	17	35	60	**62.8**
			WB	54	386	0%	386	0	35	59.5	
	Alternative		EB	66	379	6%	356	23	35	61.3	**64.2**
			WB	54	565	0%	565	0	35	61.1	
TNM6	Existing	Roberts Dr, E of Lk Sawyer Dr	EB	49	240	7%	223	17	25	59.3	**61.0**
			WB	61	186	5%	177	9	25	56	
	Baseline		EB	49	314	7%	292	22	25	60.5	**62.2**
			WB	61	243	5%	231	12	25	57.2	
	Cumulative		EB	49	780	7%	725	55	25	64.5	**66.5**
			WB	61	786	5%	747	39	25	62.3	
TNM7	Existing	Roberts Dr E of 226th Ave SE	EB	54	230	7%	214	16	25	58.6	**60.4**
			WB	66	160	6%	150	10	25	55.6	
	Baseline		EB	54	301	7%	280	21	25	59.8	**61.6**
			WB	66	209	6%	196	13	25	56.8	
	Cumulative		EB	54	618	7%	575	43	25	62.9	**64.9**
			WB	66	541	6%	509	32	25	60.7	

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TNM Location	Analysis Scenario	Noise Source	Direction	Distance	Total Volume	Heavy Truck %	Automotive vph	Heavy Truck vph	Speed	Calculated dBA	Total Calculated Traffic Noise
TNM8	Existing	Morgan St. E of Terrace Pl	EB	66	144	3%	140	4	25	53	**54.7**
			WB	54	108	0%	108	0	25	49.8	
	Baseline		EB	66	194	3%	188	6	25	54.6	**56.1**
			WB	54	141	0%	141	0	25	50.9	
	Cumulative		EB	66	515	3%	500	15	25	58.7	**60.5**
			WB	54	439	0%	439	0	25	55.9	
TNM9	Existing	Lawson St E of SR 169	EB	44	111	0%	111	0	25	50.8	**58.0**
			WB	56	61	0%	61	0	25	57.1	
	Baseline		EB	44	145	0%	145	0	25	52	**53.5**
			WB	56	80	0%	80	0	25	48.3	
	Cumulative		EB	44	338	0%	338	0	25	55.6	**56.7**
			WB	56	126	0%	126	0	25	50.3	
	Alternative		EB	44	450	0%	450	0	25	56.9	**58.5**
			WB	56	254	0%	254	0	25	53.3	
TNM10	Existing	Lk Sawyer Rd north of Roberts Dr	NB	94	131	0%	131	0	45	55.6	**59.4**
			SB	106	202	0%	202	0	45	57	
	Baseline		NB	94	171	0%	171	0	45	56.8	**60.6**
			SB	106	264	0%	264	0	45	58.2	
	Cumulative		NB	94	557	0%	557	0	45	61.9	**65.7**
			SB	106	865	0%	865	0	45	63.3	
TNM11	Existing	Green V Rd W of SR 169	EB	59	28	18%	23	5	35	53.6	**54.4**
			WB	71	26	0%	26	0	35	46.4	
	Baseline		EB	59	36	18%	30	6	35	54.4	**55.2**
			WB	71	34	0%	34	0	35	47.6	
	Cumulative		EB	59	146	18%	120	26	35	60.7	**61.5**
			WB	71	151	0%	151	0	35	54	
TNM12	Existing	SR 169 S of SR 516	NB	69	585	3%	567	18	45	64.6	**68.0**
			SB	87	792	4%	760	32	45	65.3	
	Baseline		NB	69	765	3%	742	23	45	65.7	**69.1**
			SB	87	1,036	4%	995	41	45	66.4	
	Cumulative		NB	69	1,386	3%	1344	42	45	68.3	**71.7**
			SB	87	1,852	4%	1778	74	45	69	
TNM14	Cumulative	New LH Conn Rd E of 169	EB	61	491	0%	491	0	30	57.9	**60.6**
			WB	49	331	0%	331	0	30	57.3	
	Alternative		EB	61	736	0%	736	0	30	59.6	**62.9**
			WB	49	640	0%	640	0	30	60.1	
TNM15	Cumulative	New LH Access Rd E of Lawson Rd	NB	49	253	0%	253	0	25	53.9	**57.8**
			SB	61	471	0%	471	0	25	55.5	
	Alternative		NB	49	596	0%	596	0	25	57.6	**60.2**
			SB	61	635	0%	635	0	25	56.8	
TNM16	Cumulative	New Conn Rd S of N. Triangle	EB	51	1,623	0%	1623	0	25	61.8	**63.7**
			WB	63	1,137	0%	1137	0	25	59.2	

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TNM Location	Analysis Scenario	Noise Source	Direction	Distance	Total Volume	Heavy Truck %	Automotive vph	Heavy Truck vph	Speed	Calculated dBA	Total Calculated Traffic Noise
TNM17	Cumulative	Village Access Rd S of Roberts Dr	NB	61	754	0%	754	0	25	57.6	**62.4**
			SB	49	1,191	0%	1191	0	25	60.6	
TNM18	Cumulative	Village Access Rd E of SR 169	EB	56	387	0%	387	0	25	55.1	**59.7**
			WB	44	567	0%	567	0	25	57.9	
TNM19	Cumulative	Alt Vill Access Rd to Green V. Rd	NB	44	567	0%	567	0	35	57.9	**59.7**
			SB	56	387	0%	387	0	35	55.1	

Calculated dBA based on noise propagation over hard surfaces, such as pavement or bodies of water.
Heavy Truck percentages from Parametrix, 2007 traffic counts.