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DATE	<u>OCT 16 2008</u>
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October 16, 2008

Mr. Tom Murphy
Aspen Environmental Group
8801 Folsom Boulevard, Suite 290
Sacramento, CA 95826

Dear Mr. Murphy:

This letter presents the results of noise monitoring performed by Brown-Buntin Associates, Inc. (BBA) during the period of September 23-25, 2008, concerning ambient noise levels in the vicinity of the proposed Carrizo Energy Solar Farm (CESF) project, to be located in San Luis Obispo County, California. The objective of this study was to supplement previous ambient noise measurements in the vicinity of the homes and the school near the proposed development.

This analysis describes the results of long-term continuous noise measurements at four locations, as well as short-term (one-hour) noise measurements and observations performed at four additional locations.

Long-term noise measurements were conducted at the following locations:

- Reyes Residence: The microphone was placed at the north property line near the house. Lat/long: N35° 23.191' W120° 02.416'
- Strobridge Residence: The microphone was placed about 100 feet west of the front porch. Lat/long: N35° 23.375' W120° 02.903'
- Bell Future Residence: The microphone was placed about 100 feet southeast of the short power pole. Lat/long: N35° 22.765' W120° 05.064'
- Branch Mountain Equipment Yard: The microphone was placed at the east fence line, about 100 feet south of Highway 58 centerline. Lat/long: N35° 21.054' W120° 01.302'. This site was selected as an alternative to site ML07, which was unavailable.

The short-term noise measurements were conducted at the following locations:

- SR10: The microphone was placed at the northeast edge of the driveway, about 115 feet from the Highway 58 centerline. Lat/long: N35° 21.987' W120° 03.747'
- ML01/02: The microphone was placed at the west edge of the road between the two dwellings, about 200 feet from the Highway 58 centerline. Lat/long: N35° 22.009' W120° 04.248'

- LT01: The microphone was placed at the north property line, about 260 feet east of the Highway 58 centerline. Lat/long: N35° 21.278' W120° 02.376'. For the nighttime measurement, the meter was placed at the north property line about 60 feet from the highway centerline, since the school grounds were locked and gated.
- ML03: The microphone was placed at the southwest corner of the intersection of Tracy Road, about 600 feet from the nearest residences. Lat/long: N35° 23.291' W120° 01.910'

Figure 1 shows the noise measurement locations.

Table I lists the sound level measurement equipment used for this study. Appendix B provides photographs of the noise measurement sites.

Location	BBA No.	Sound Level Meter	Serial No.	Preamplifier	Serial No.	Microphone	Serial No.
ML01/02, ML03	9	Larson Davis 870	0203	LD PRM900B	4167	LD 2541	1378
Reyes	11	Larson Davis 820	1124	LD PRM828	1539	B&K 4176	2135837
Strobridge	12	Larson Davis 820	1126	LD PRM828	1560	B&K 4176	1583190
Bell	13	Larson Davis 820	1419	LD PRM828	2186	B&K 4176	2419458
Branch Mtn.	14	Larson Davis 820	1128	LD PRM828	1561	B&K 4176	2135458
SR10, ML03, LT01	19	Larson Davis 820	0304	LD PRM828	1219	PCB 377B02	02581

The sound level meters were calibrated before each measurement using a Bruel & Kjaer Type 4230 acoustical calibrator, SN 1233547, which was calibrated by an accredited laboratory in November 2007, and certified to be in conformance with the acoustical reference values maintained by the National Institute of Standards and Technology.

The noise floor of the measurement systems listed above is 17-18 dBA¹. This means that noise levels reported as being below about 28 dBA may actually be lower than reported, as the noise floor of the instruments will contribute from 0.4 to 3.0 dB to the total reported noise level, depending upon the measured sound pressure level.

For the long-term noise measurements, the microphones were placed in a vertical position on a PVC boom ranging in height from 6 to 8 feet above the ground. Each microphone was fitted with a random incidence corrector, and was protected by a large windscreen assembly.

For the short-term noise measurements, the sound level meter was placed on a tripod so that the microphone was about 5 feet above the ground, nearly vertical. A random incidence corrector was placed on the microphone on meter 19. The microphones were protected by windscreens about 3.5 inches in diameter.

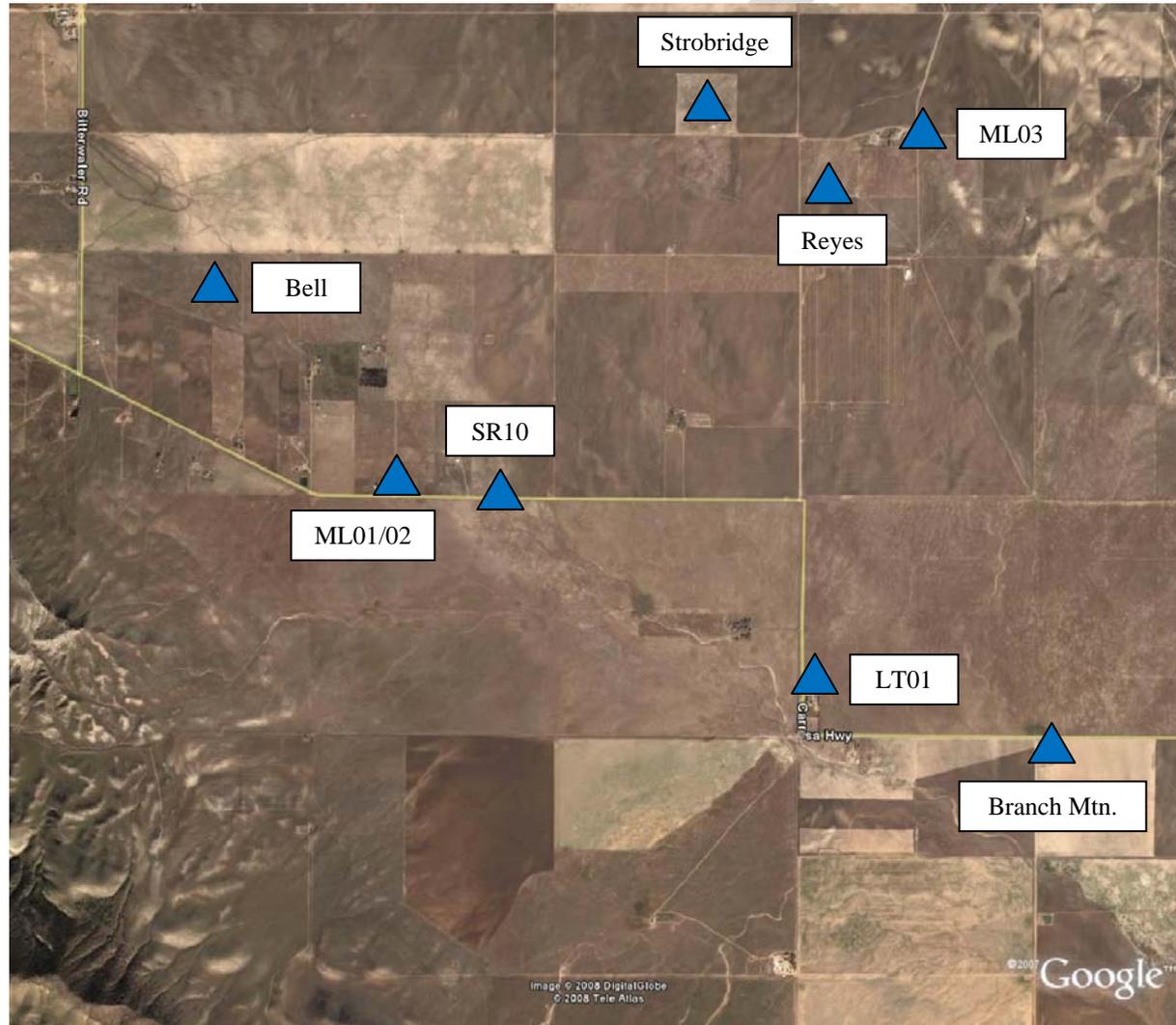
¹ See Appendix A for definitions of acoustical terms used in this report.

Weather during the measurement period was relatively mild, with observed nighttime temperatures in the range of 60 to 65 degrees Fahrenheit, and daytime temperatures up to 90 degrees Fahrenheit. Wind speeds of 5 to 15 mph were observed in daytime from about 11 a.m. to sunset, but wind speeds were 0-5 mph or nil at nighttime and early morning. The sky was clear, and humidity was relatively low.

Tables I through IV list the hourly noise level data for each of the long-term noise measurement sites. Tables V through VIII list the hourly noise level data obtained at the short-term noise measurement sites.

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Figure 1
Ambient Noise Measurement Locations
September 23-25, 2008



 Noise Monitoring Sites

TABLE I
LONG TERM NOISE MEASUREMENT RESULTS
Hourly Noise Level Statistics
Reyes Residence

Date	Time	Sound Level, dB								
		Leq	Lmax	Lmin	L02	L08	L10	L25	L50	L90
23Sep 08	16:00:00	42.5	66.5	27.1	48.9	45.5	44.8	42.2	39	32.1
23Sep 08	17:00:00	40.8	65.5	27.5	46.3	43.4	42.8	40	36.7	31.8
23Sep 08	18:00:00	35.2	56.3	23.9	41.5	36.8	36.1	34.1	31.4	26.6
23Sep 08	19:00:00	38.3	47	27.7	41.5	40.3	40	39.3	38.2	34.5
23Sep 08	20:00:00	38.3	55.8	33.1	39.9	38.8	38.7	38	37.3	35.5
23Sep 08	21:00:00	35.2	39.1	26.7	38.7	37.9	37.8	37	34.8	29.8
23Sep 08	22:00:00	32.2	39.7	25.3	35.9	34.6	34.4	33.4	31.9	28.1
23Sep 08	23:00:00	41.2	63.5	18.1	52.6	37.7	32.6	26.4	22.4	18.6
24Sep 08	0:00:00	26.1	50.7	18.3	31.3	26.2	25.9	23.9	21.7	19.2
24Sep 08	1:00:00	26.6	53.1	17.8	22.9	21.4	21.1	19.9	18.9	18
24Sep 08	2:00:00	20.7	28.3	18.1	25.4	23.3	22.8	21.1	19.9	18.5
24Sep 08	3:00:00	20.8	32	18	24.6	22.9	22.4	21.2	20.2	18.8
24Sep 08	4:00:00	34.8	53.6	17.8	43.9	38.8	36.3	25	20.8	18.5
24Sep 08	5:00:00	33.6	48.8	17.8	44.1	39.7	38.3	26.8	20	18.3
24Sep 08	6:00:00	51	79.6	19.7	44.6	38.9	37.9	33.4	29.2	23.7
24Sep 08	7:00:00	35.4	66.3	19.8	42.3	36.6	35.7	30.5	26.5	22.5
24Sep 08	8:00:00	31.8	52	18.9	39.4	35.3	34.6	31.3	28.5	22.3
24Sep 08	9:00:00	35.6	61	22	44.4	37.3	36.3	33.2	30.6	27
24Sep 08	10:00:00	45.3	69.7	22.4	49	40.5	38.1	31.3	28.7	25.3
24Sep 08	11:00:00	31	48.4	21.9	38	35	34.4	31.2	28.1	25
24Sep 08	12:00:00	32.9	57.3	21.7	41.3	33.7	33	30	27.3	24.2
24Sep 08	13:00:00	35.5	54.5	21.4	45.5	38.6	37.5	32.5	27.6	23.7
24Sep 08	14:00:00	42.7	68	23	50.7	46	45.2	40.6	35.2	27.1
24Sep 08	15:00:00	43.7	63.3	21.7	52.3	45.7	44.9	40.8	35.7	25.1
24Sep 08	16:00:00	35.8	52.2	20.3	44.6	40.7	39.8	34.6	29.4	23.3
24Sep 08	17:00:00	31.7	52	20.8	40.7	35.1	34.3	29.9	26.3	22.3
24Sep 08	18:00:00	32.9	54.5	20.7	40.6	37.1	36.1	33.5	26.8	22.4
24Sep 08	19:00:00	50.4	65.6	26.6	60.9	56	52.9	46.3	43.6	36.3
24Sep 08	20:00:00	40.3	51.8	34.8	44.6	41.7	41.6	40.7	39.8	37.8
24Sep 08	21:00:00	38	45.8	31.5	41.2	40	39.8	38.9	37.6	35.6
24Sep 08	22:00:00	34.2	40.6	25.5	37.6	36.7	36.6	35.4	33.6	30.6
24Sep 08	23:00:00	28.6	38.6	21.1	32.8	30.8	30.3	29.2	28	26.1
25Sep 08	0:00:00	28.6	37.1	20.5	31.4	30.5	30.3	29.3	28.3	26.6

TABLE I
LONG TERM NOISE MEASUREMENT RESULTS
Hourly Noise Level Statistics
Reyes Residence

Date	Time	Sound Level, dB								
		Leq	Lmax	Lmin	L02	L08	L10	L25	L50	L90
25Sep 08	1:00:00	36.1	62	18.2	41.9	30	29.7	28.3	24.5	20.2
25Sep 08	2:00:00	26.2	39.4	17.9	33.3	31.5	31.2	26.7	21.6	18.6
25Sep 08	3:00:00	21.5	40.2	18	26.8	23.6	23.1	21.5	20.1	18.5
25Sep 08	4:00:00	35.2	56.4	18.8	44.4	35.6	33.6	29.3	26.6	20.4
25Sep 08	5:00:00	48.8	69.6	19.3	59.2	41.7	40.6	34.3	25.9	20.4
25Sep 08	6:00:00	37.2	55.6	19.5	47.2	41	39.9	34.9	31.3	25.9
25Sep 08	7:00:00	37.9	59.6	19.3	49.2	39.9	38.6	34.2	29.9	21.9
25Sep 08	8:00:00	42.4	63.5	20.6	54.2	43.1	40.8	31.4	27.4	23.6
25Sep 08	9:00:00	32.9	51.7	22.9	42.8	34.9	33.9	30.6	28.2	25.1
25Sep 08	10:00:00	31.8	58.6	21.7	39	34	33.3	30	27.3	24.5
25Sep 08	11:00:00	28	51.8	20.9	34.5	30.4	29.8	27.5	25.7	23.3

TABLE II
LONG TERM NOISE MEASUREMENT RESULTS
Hourly Noise Level Statistics
Strobridge Residence

Date	Time	Sound Level, dB								
		Leq	Lmax	Lmin	L02	L08	L10	L25	L50	L90
23Sep 08	16:00:00	42.1	73.8	23.4	49.4	43.7	42.9	38.8	35	29.2
23Sep 08	17:00:00	36.9	56.9	23.6	44.9	41.2	40.4	35.9	32.7	27.9
23Sep 08	18:00:00	33.6	55.3	26.1	38.3	32.7	32.3	31.1	30.3	29
23Sep 08	19:00:00	35	40	27.6	37.2	36.8	36.7	36	34.9	32.9
23Sep 08	20:00:00	32.4	36.8	27.9	35.1	34.1	33.9	33.4	32.4	29.9
23Sep 08	21:00:00	32.2	36.4	21.5	35.9	35.6	35.5	34.6	31.2	23.6
23Sep 08	22:00:00	27.6	37.4	22.9	30	28.8	28.7	27.9	27.4	26
23Sep 08	23:00:00	22	34	19.1	28.3	25.3	24.6	21.8	20.1	19.2
24Sep 08	0:00:00	22	29	19.1	26.7	24.4	24.1	22.9	21.1	19.3
24Sep 08	1:00:00	19.9	24	19.1	21.6	20.9	20.8	20.3	19.8	19.2
24Sep 08	2:00:00	19.9	27.5	19	23.7	21.3	20.7	19.9	19.6	19.1
24Sep 08	3:00:00	19.6	28.8	19	21.4	20.5	20.3	19.9	19.6	19.1
24Sep 08	4:00:00	20.8	35.1	19	25.7	22.9	22.3	20.7	19.8	19.2
24Sep 08	5:00:00	20.2	35.4	19	24.1	21.4	21	20.2	19.7	19.1
24Sep 08	6:00:00	28.1	56.3	19.3	37	30.4	29.3	24.7	22.2	19.9

TABLE II
LONG TERM NOISE MEASUREMENT RESULTS
Hourly Noise Level Statistics
Strobridge Residence

Date	Time	Sound Level, dB								
		Leq	Lmax	Lmin	L02	L08	L10	L25	L50	L90
24Sep 08	7:00:00	29.4	52.9	19.4	37.8	33.5	32.6	26.4	22.8	20.3
24Sep 08	8:00:00	29.8	51.1	20.5	37	32.1	31.5	29	26.6	22
24Sep 08	9:00:00	32.1	48.3	20.6	42.5	34.8	33.9	30.1	27.3	22.9
24Sep 08	10:00:00	33.5	52.6	20.5	44.7	33.9	32.8	29.1	26.1	22
24Sep 08	11:00:00	25.7	41	20.1	33.6	29.4	28.4	24.9	22.8	21.2
24Sep 08	12:00:00	30.6	51.6	20	40.6	31	30.1	26.4	23.3	21
24Sep 08	13:00:00	33.4	57	19.6	41.2	33.1	32.3	27.6	22.9	20.5
24Sep 08	14:00:00	59.8	84.5	19.9	70.1	54.4	51.5	41.3	34	22.6
24Sep 08	15:00:00	34.9	53.9	20	44	39.1	38.1	33.6	29.3	22.9
24Sep 08	16:00:00	31.5	52.5	19.6	39.7	35.5	34.7	30.5	25.9	20.9
24Sep 08	17:00:00	29.1	51.6	19.6	36.6	30.8	29.9	25.6	22.1	20.2
24Sep 08	18:00:00	30	51	19.8	37.9	32.9	31.9	28.9	26.2	21.1
24Sep 08	19:00:00	37.9	49.5	23.9	40.9	40.2	40	39.4	38.4	29.9
24Sep 08	20:00:00	36.5	39.7	32.1	39	38.5	38.4	37.4	36.3	34.3
24Sep 08	21:00:00	34.2	44.4	31.5	37.8	35.7	35.4	34.6	33.8	32.9
24Sep 08	22:00:00	28.9	34.5	21	33.5	32.6	32.3	31	26.7	22.8
24Sep 08	23:00:00	27.1	33.1	23.8	29.8	28.9	28.8	28	26.8	25.2
25Sep 08	0:00:00	24.6	36.9	20	29.1	26.1	25.9	25.1	24.1	21.8
25Sep 08	1:00:00	26.7	46.8	19	30	26.6	26.3	24.9	22.7	20.1
25Sep 08	2:00:00	20	34	18.9	23.4	21.3	21	20.1	19.7	19.1
25Sep 08	3:00:00	20	40.1	19	21.9	20.7	20.5	19.9	19.6	19.1
25Sep 08	4:00:00	23.3	43.5	19	29.8	23.4	22.4	20.4	19.8	19.2
25Sep 08	5:00:00	24.1	47.1	19	31.6	22.9	22.4	21	20	19.2
25Sep 08	6:00:00	27.1	50.3	19.1	35.5	29.3	28.1	24.5	22.6	19.9
25Sep 08	7:00:00	28.4	52.8	19.3	37.1	31.1	30	25.9	22.9	20.1
25Sep 08	8:00:00	26.9	48.6	20.6	33.4	30.1	29.7	27.5	24.7	21.6
25Sep 08	9:00:00	25.7	43	20.4	32.1	28.4	27.8	25.8	24.2	22
25Sep 08	10:00:00	27.4	50.3	19.9	32.8	27.6	27	24.7	22.7	20.7
25Sep 08	11:00:00	26.1	48.9	19.9	33	26.4	25.4	22.6	21.5	20.3

TABLE III
LONG TERM NOISE MEASUREMENT RESULTS
Hourly Noise Level Statistics
Bell Future Residence

Date	Time	Sound Level, dB								
		Leq	Lmax	Lmin	L02	L08	L10	L25	L50	L90
23Sep 08	17:00:00	32.9	46.3	21.4	39.1	36.6	36.1	33.9	31	26.3
23Sep 08	18:00:00	28.6	46.1	22	34.6	31	30.5	28.4	26.7	24.3
23Sep 08	19:00:00	26.4	38.4	20.9	31.4	28.9	28.6	27	25.6	22.8
23Sep 08	20:00:00	30	55.1	20.8	38.5	33	31.9	28.2	26.2	23.2
23Sep 08	21:00:00	25.3	39.5	20	33	28.3	27.5	24.6	23.3	21.2
23Sep 08	22:00:00	25	37.5	18.6	33.2	28.4	27.5	24.6	22.9	19.9
23Sep 08	23:00:00	22.8	38.6	18.5	29.5	26	25.4	22.4	20.6	19
24Sep 08	0:00:00	20.9	35.4	18.3	28.4	22.7	22.2	20.4	19.2	18.3
24Sep 08	1:00:00	20.1	37	18.1	25.9	22.9	22.3	19.6	18.7	18.1
24Sep 08	2:00:00	24.5	42.6	18.1	32.4	25.1	24	19.6	18.7	18.1
24Sep 08	3:00:00	23	40.2	18	33.1	25	22.7	19.2	18.7	18.1
24Sep 08	4:00:00	24.8	40.5	18	35.3	28.9	27.7	20.3	18.7	18.1
24Sep 08	5:00:00	25.9	41.7	18.1	35.2	30.6	29.7	24.1	19.2	18.2
24Sep 08	6:00:00	31.2	43.2	18.5	38.7	35.8	35.2	32	28.2	21.1
24Sep 08	7:00:00	34.4	56.1	19.6	43	37.7	36.9	33.7	28.9	22.6
24Sep 08	8:00:00	33.7	47.2	19.1	42.5	39.1	38.3	33.6	27.5	21
24Sep 08	9:00:00	27.7	41.3	19.7	35.6	32	31.2	27.5	24.4	21.5
24Sep 08	10:00:00	38.4	66	19.6	46.1	37.7	36	30.2	26.5	21.8
24Sep 08	11:00:00	26.2	43.2	19.7	33.7	28.9	28.2	25.4	23.1	20.8
24Sep 08	12:00:00	26.9	45.2	19.6	35.3	30.2	29.5	26	23.1	20.6
24Sep 08	13:00:00	36.8	56.6	19.7	47.9	40.5	38.5	30.6	25.2	20.8
24Sep 08	14:00:00	36.3	52.4	20.1	46.2	40.7	39.6	34.5	29.5	22.9
24Sep 08	15:00:00	33.5	54.9	19.7	43.6	34.9	33.9	29.9	25.3	21.3
24Sep 08	16:00:00	37.3	55.5	19.7	46.8	41.9	40.8	35.4	30.6	22.6
24Sep 08	17:00:00	35.2	48.3	19.9	43.8	39.8	39.1	35.3	31.4	24.6
24Sep 08	18:00:00	31.2	50.4	20.1	39	32.6	32	29.6	27	23.3
24Sep 08	19:00:00	29.6	41.5	22.2	35	32.7	32.2	30.4	28.6	25.1
24Sep 08	20:00:00	28.9	40	23.4	33.3	30.8	30.5	29.2	28.3	26.6
24Sep 08	21:00:00	29.3	43.5	20	37.3	32.3	31.4	28.6	27.1	24.1
24Sep 08	22:00:00	26.6	44.4	20.3	34.6	28.6	27.6	25.3	23.9	21.8
24Sep 08	23:00:00	25.1	43	19.5	32.7	27.5	26.9	24.8	22.8	20.6
25Sep 08	0:00:00	24.4	43.1	18.7	32.4	26.5	24.7	22.4	21	19.4
25Sep 08	1:00:00	24.3	40.4	18.4	34.1	27.6	25.9	21.9	20.5	18.9

TABLE III
LONG TERM NOISE MEASUREMENT RESULTS
Hourly Noise Level Statistics
Bell Future Residence

Date	Time	Sound Level, dB								
		Leq	Lmax	Lmin	L02	L08	L10	L25	L50	L90
25Sep 08	2:00:00	21.6	36.6	18.2	28.7	24.4	23.9	20.9	19.3	18.2
25Sep 08	3:00:00	23.5	39.4	18.2	33.5	26.2	24.2	19.8	18.8	18.2
25Sep 08	4:00:00	24.3	41.1	18.8	30.5	25.9	25.5	24.1	22.6	19.5
25Sep 08	5:00:00	27.5	42	18.5	35.9	31.9	30.9	27.2	23.8	18.9
25Sep 08	6:00:00	32.1	52.2	19	39.5	36.5	35.9	32	28.2	22.7
25Sep 08	7:00:00	29.9	43.6	20.1	37.5	33.6	32.7	29.9	27.5	23.6
25Sep 08	8:00:00	33	57.1	20	40.8	37	36	31.3	25.8	21.6
25Sep 08	9:00:00	25.5	41.2	20.3	32.2	28.5	27.8	25.5	23.6	21.7
25Sep 08	10:00:00	25.7	42.7	19.6	32.1	28	27.5	25.4	23.6	21.3
25Sep 08	11:00:00	27.4	46.4	19.5	36.9	28.9	28	24.7	22.2	20.3
25Sep 08	12:00:00	33.9	58.2	19.6	43.9	33.7	32.6	28.5	24.4	20.6

TABLE IV
LONG TERM NOISE MEASUREMENT RESULTS
Hourly Noise Level Statistics
Branch Mountain Road Equipment Yard

Date	Time	Sound Level, dB								
		Leq	Lmax	Lmin	L02	L08	L10	L25	L50	L90
24Sep 08	9:00:00	41.2	61.1	20.4	52.3	42.6	41.5	36.2	33.6	24.3
24Sep 08	10:00:00	43.7	66.9	22.7	53.8	46.5	44.8	36.9	33.2	28.1
24Sep 08	11:00:00	40.7	61.6	32.8	51.2	41.8	40.6	36.4	34.2	33.1
24Sep 08	12:00:00	43.6	64.5	22.2	54	45.8	44.1	38.2	34.2	27.6
24Sep 08	13:00:00	45.7	68	33.1	54.9	47.9	46.6	40.7	37.1	34
24Sep 08	14:00:00	48.2	70.4	33.5	57.5	51.8	50.7	45.7	40.9	35.9
24Sep 08	15:00:00	46	66.9	33.6	55.1	48.7	47.5	43.5	40.1	35.9
24Sep 08	16:00:00	43.6	61.5	33	54.4	45.9	44.7	39	35.9	33.5
24Sep 08	17:00:00	42.7	64.8	33	52.5	45.8	44.6	38.9	35.5	33.4
24Sep 08	18:00:00	40.5	58.7	32.8	50.6	43.4	42.1	36	33.8	33.1
24Sep 08	19:00:00	44.6	66.5	32.8	55.7	47.1	45	36.4	33.6	32.8
24Sep 08	20:00:00	47.3	67.7	19.1	58.4	46	43.5	34	32.2	21.1
24Sep 08	21:00:00	40.6	62	17.5	50.8	39.2	36.9	27.3	20.8	17.8

TABLE IV
LONG TERM NOISE MEASUREMENT RESULTS
Hourly Noise Level Statistics
Branch Mountain Road Equipment Yard

Date	Time	Sound Level, dB								
		Leq	Lmax	Lmin	L02	L08	L10	L25	L50	L90
24Sep 08	22:00:00	38.4	61.2	17.2	48.2	30.9	28.6	20.7	18.3	17.2
24Sep 08	23:00:00	38.2	61.7	17.1	47	24.8	23	18.7	17.7	17.1
25Sep 08	0:00:00	41.2	66.4	17.1	49.6	33.4	29.9	20.5	18.3	17.2
25Sep 08	1:00:00	35.8	59.8	17	42.7	27.7	24.5	21.1	18.5	17.3
25Sep 08	2:00:00	34	58.5	17.3	34.1	24.5	24	21.4	19.4	17.6
25Sep 08	3:00:00	40.1	63.2	17	48.9	36.7	30.1	21.7	19.8	17.6
25Sep 08	4:00:00	40.6	66.4	16.9	47.4	29	27.5	22.2	19	17.2
25Sep 08	5:00:00	43.8	67.4	17.7	54	45.4	43.7	28.4	23.8	18.9
25Sep 08	6:00:00	47.9	69.2	17.2	59.1	50	48	39.3	29.8	21.1
25Sep 08	7:00:00	44.8	64.9	18.7	54.8	49.1	47.9	41.6	34.2	22.9
25Sep 08	8:00:00	43.1	64.3	19.8	53.8	46.7	44.9	36	32.9	27.5
25Sep 08	9:00:00	41.9	64.6	23.5	51.1	39.5	38.1	34.8	33.6	32.2
25Sep 08	10:00:00	46.6	67.3	32.6	57.3	48.9	47.3	40.4	36.6	33.7

TABLE V
SHORT TERM NOISE MEASUREMENT RESULTS
Hourly Noise Level Statistics
Site SR10: Residence along Highway 58

Date	Time	Sound Level, dB								
		Leq	Lmax	Lmin	L02	L08	L10	L25	L50	L90
23Sep 08	22:00:00	49.6	74.3	20.1	56.2	38.3	35.6	23.2	21.2	20.2
24Sep 08	9:30:00	51	78.2	22.1	61.4	49.8	47.4	38.2	32.4	25.8
24Sep 08	15:55:00	48.8	69.2	23.9	60.4	48	46.9	42	36.6	27.3

Notes: Nighttime noise sources included occasional autos on Highway 58, insects, coyotes, and a jet overhead. During morning hours, noise sources were primarily traffic and birds. Afternoon noise sources included wind in the trees, birds and traffic.

TABLE VI
SHORT TERM NOISE MEASUREMENT RESULTS
Hourly Noise Level Statistics
Site ML01/02: Two Residences along Highway 58

Date	Time	Sound Level, dB								
		Leq	Lmax	Lmin	L02	L08	L10	L25	L50	L90
23Sep 08	22:00:00	42.8	68.3	19.8	50.8	33	30.6	23.5	21.6	20.3
24Sep 08	9:40:10	46.4	72.3	26.1	56.4	46.3	44.5	40.3	36.7	30.2
24Sep 08	16:00:00	48.5	66.5	24.4	58.4	50.8	50.1	46.8	42.9	35.1

Notes: Nighttime noise sources included occasional autos on Highway 58, insects, coyotes, a nearby horse, and a jet overhead. During morning hours, noise sources were primarily traffic, children playing nearby, and birds. Afternoon noise sources included wind in the trees, birds and traffic, and the resident driving nearby.

TABLE VII
SHORT TERM NOISE MEASUREMENT RESULTS
Hourly Noise Level Statistics
Site LT01: Carissa Plains Elementary School

Date	Time	Sound Level, dB								
		Leq	Lmax	Lmin	L02	L08	L10	L25	L50	L90
24Sep 08	11:05:00	46.4	72.8	24.9	56.2	45.4	44.8	42	36	28.5
24Sep 08	14:35:00	48.3	64.1	29.6	57.4	52.7	51.8	47.8	43.8	35
24Sep 08	22:00:00	50.1	76.8	27.2	51.6	38.7	35	33.3	32.2	30.9

Notes: Morning noise sources included birds in the trees and children leaving classrooms for lunch. A classroom air conditioning unit operated periodically after about 11:50 a.m. Afternoon noise sources included the wind in the trees and the air conditioning unit. Two classes were in session, indoors. At night, the maximum levels were elevated due to increased proximity to the highway. The nearby water tank pressure pump was also turned on during the night session.

TABLE VIII
SHORT TERM NOISE MEASUREMENT RESULTS
Hourly Noise Level Statistics
Site ML03: Residence northeast of Proposed Site

Date	Time	Sound Level, dB								
		Leq	Lmax	Lmin	L02	L08	L10	L25	L50	L90
24Sep 08	13:11:01	43.8	57.4	20.4	53.3	49.4	48.5	42.8	34.9	21.9
24Sep 08	22:00:00	32.3	60.2	19.7	32.3	25.4	24.5	22.6	21.5	20.3
25Sep 08	10:00:00	26.9	48.4	20.4	33.4	27.2	26.3	23.9	22.4	21

Notes: During the afternoon, wind speed increased from nil to 12-15 mph in gusts. Noise sources included insects, especially flies and grasshoppers, and an occasional bird. Goats and horses were observed nearby. At night, crickets were dominant, and the residents' voices could be heard. Horses ran in a nearby pasture, and the resident drove by. In the morning, there were no apparent noise sources except insects and birds. No traffic was present during the daytime sessions.

Respectfully submitted,
Brown-Buntin Associates, Inc.

Jim Buntin
Vice President

APPENDIX A

ACOUSTICAL TERMINOLOGY

AMBIENT NOISE LEVEL: The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

CNEL: Community Noise Equivalent Level. The average equivalent sound level during a 24-hour day, obtained after addition of 4.8 decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and 10 decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.

DECIBEL, dB: A unit for describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).

DNL/L_{dn}: Day/Night Average Sound Level. The average equivalent sound level during a 24-hour day, obtained after addition of 10 decibels to sound levels in the night after 10:00 p.m. and before 7:00 a.m.

L_{eq}: Equivalent Sound Level. The sound level containing the same total energy as a time varying signal over a given sample period. L_{eq} is typically computed over 1, 8 and 24-hour sample periods.

NOTE: The CNEL and DNL represent daily levels of noise exposure averaged on an annual basis, while L_{eq} represents the average noise exposure for a shorter time period, typically one hour.

L_{max}: The maximum noise level recorded during a noise event.

L_n: The sound level exceeded "n" percent of the time during a sample interval (L₉₀, L₅₀, L₁₀, etc.). For example, L₁₀ equals the level exceeded 10 percent of the time.

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ACOUSTICAL TERMINOLOGY

**NOISE EXPOSURE
CONTOURS:**

Lines drawn about a noise source indicating constant levels of noise exposure. CNEL and DNL contours are frequently utilized to describe community exposure to noise.

**NOISE LEVEL
REDUCTION (NLR):**

The noise reduction between indoor and outdoor environments or between two rooms that is the numerical difference, in decibels, of the average sound pressure levels in those areas or rooms. A measurement of Noise level reduction combines the effect of the transmission loss performance of the structure plus the effect of acoustic absorption present in the receiving room.

SEL or SENEL:

Sound Exposure Level or Single Event Noise Exposure Level. The level of noise accumulated during a single noise event, such as an aircraft overflight, with reference to a duration of one second. More specifically, it is the time-integrated A-weighted squared sound pressure for a stated time interval or event, based on a reference pressure of 20 micropascals and a reference duration of one second.

SOUND LEVEL:

The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear, and gives good correlation with subjective reactions to noise.

**SOUND TRANSMISSION
CLASS (STC):**

The single-number rating of sound transmission loss for a construction element (window, door, etc.) over a frequency range where speech intelligibility is of concern.

**APPENDIX B
SITE PHOTOGRAPHS**

REYES RESIDENCE



STROBRIDGE RESIDENCE



BELL FUTURE RESIDENCE



BRANCH MOUNTAIN ROAD EQUIPMENT YARD



SR10



ML01/02



LT01



ML03

