

**Noise Measurement Survey Data Sheet for Noise Measurement
Number 1 (December 1, 2017)**

Ambient Noise Survey Data Sheet

Instructions: Document noise measurement locations with a photo of the site, including the noise meter. Additionally, take notes on general and secondary noise sources, including the instantaneous noise level if possible. As a reminder, A/C weighting should be set to "A" and generally response time should be set to "fast." For additional information, please review the *Noise Measurement Protocol* in the pelican case.

Project Name: NPW Cxns Job Number: 17-04981
 Date: 12/01/17 Operator Name: Aubrey Mescher

Measurement #1

Location: El Dorado Sandcastle Begin time: 4:27 Finish time: 4:37
 Measurement No.: 1 Wind (mph): 0 Direction: 0
 Cloud Cover Class: Overcast (>80%) Light (20-80%) Sunny (<20%)
 Calibration (dB): Start: _____ End: _____
 Primary Noise Sources: traffic Distance: adjacent
 Secondary Noise Sources: me walking; airplanes x 4;
 Notes: dog barking; large trucks x 2
 Traffic Count: Passenger Cars: 10/min
 Medium to Heavy Duty Trucks (3 axles): 2 Heavy Duty Trucks (4+ axles): _____
 Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): _____
 Leq: 66.7 SEL: 94.4 Lmax: _____ Lmin: _____ PK: _____
 L(05): 73.1 L(10): 70.9 L(50): 61.0 L(90): 50.5 L(95): 48.0
 Response: Slow Fast Peak Impulse

Measurement #2

Location: _____ Begin time: _____ Finish time: _____
 Measurement No.: _____ Wind (mph): _____ Direction: _____
 Cloud Cover Class: Overcast (>80%) Light (20-80%) Sunny (<20%)
 Calibration (dB): Start: _____ End: _____
 Primary Noise Sources: _____ Distance: _____
 Secondary Noise Sources: _____
 Notes: _____
 Traffic Count: Passenger Cars: _____
 Medium to Heavy Duty Trucks (3 axles): _____ Heavy Duty Trucks (4+ axles): _____
 Instantaneous Noise Sources/Levels (e.g., airplane, bus airbrake, etc.): _____
 Leq: _____ SEL: _____ Lmax: _____ Lmin: _____ PK: _____
 L(05): _____ L(10): _____ L(50): _____ L(90): _____ L(95): _____
 Response: Slow Fast Peak Impulse

**Noise Measurement Survey Data Sheet for Noise Measurement
Number 2 (May 10, 2017)**

AMBIENT NOISE SURVEY DATA SHEET

Project: _____
 Date: _____
 Operator: _____

Job Number: _____

Station: <u>4</u> Begin: <u>1215</u> Measurement No. <u>4</u> Finish: <u>1230</u> Wind: <u>1</u> mph Direction: _____ Temperature: _____ Cloud Cover Class Daytime <input type="checkbox"/> 1 - Overcast >80% <input type="checkbox"/> 2 - Light 20-80% <input type="checkbox"/> 3 - Sunny <20% Nighttime <input type="checkbox"/> 4 - Clear <50% <input type="checkbox"/> 5 - Overcast >50% Primary Noise Source: <u>traffic/cars</u> Distance: <u>street swiping</u> Secondary Noise Sources: <u>pedestrians</u> Notes: _____ Traffic LDAT: _____ MDT: _____ HDT: _____ Leq: _____ L(10): <u>72.4</u> Lmin: <u>47.2</u> L(33): _____ Lmax: <u>79.3</u> L(50): <u>63.9</u> Peak: _____ L(90): <u>51.5</u> Calibration Start: _____ dB End: _____ dB Response: <input type="checkbox"/> Slow <input type="checkbox"/> Fast <input type="checkbox"/> Peak <input type="checkbox"/> Impulse Weighting: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> Linear Octave Filter: <input type="checkbox"/> NA <input type="checkbox"/> _____ Hz	Station: _____ Begin: _____ Measurement No. _____ Finish: _____ Wind: _____ mph Direction: _____ Temperature: _____ Cloud Cover Class Daytime <input type="checkbox"/> 1 - Overcast >80% <input type="checkbox"/> 2 - Light 20-80% <input type="checkbox"/> 3 - Sunny <20% Nighttime <input type="checkbox"/> 4 - Clear <50% <input type="checkbox"/> 5 - Overcast >50% Primary Noise Source: _____ Distance: _____ Secondary Noise Sources: _____ Notes: _____ Traffic LDAT: _____ MDT: _____ HDT: _____ Leq: _____ L(10): _____ Lmin: _____ L(33): _____ Lmax: _____ L(50): _____ Peak: _____ L(90): _____ Calibration Start: _____ dB End: _____ dB Response: <input type="checkbox"/> Slow <input type="checkbox"/> Fast <input type="checkbox"/> Peak <input type="checkbox"/> Impulse Weighting: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> Linear Octave Filter: <input type="checkbox"/> NA <input type="checkbox"/> _____ Hz
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ph 79.4

Note: Provide Sketch of Location on Back.

**Noise Measurement Survey Data Sheet for Noise Measurement
Number 3 (May 10, 2017)**

AMBIENT NOISE SURVEY DATA SHEET

Project: _____
 Date: _____
 Operator: _____

Job Number: _____

Station: <u>3</u> Begin : _____ Measurement No. <u>3</u> Finish: _____ Wind: <u>None</u> mph Direction: _____ Temperature: _____ Cloud Cover Class Daytime <input type="checkbox"/> 1 - Overcast >80% <input type="checkbox"/> 2 - Light 20-80% <input type="checkbox"/> 3 - Sunny <20% Nighttime <input type="checkbox"/> 4 - Clear <50% <input type="checkbox"/> 5 - Overcast >50% Primary Noise Source: <u>Construction on WRP10</u> Distance: _____ Secondary Noise Sources: <u>dogs</u> <u>landscaping</u> <u>blower down st</u> Notes: _____ _____ Traffic LDAT: _____ _____ MDT: _____ HDT: _____ Leq: <u>46.8</u> L(10): <u>52.5</u> <u>51.4</u> Lmin: <u>36.7</u> L(33): _____ Lmax: _____ L(50): <u>48.43d</u> Peak: _____ L(90): <u>40</u>	Station: _____ Begin : _____ Measurement No. _____ Finish: _____ Wind: _____ mph Direction: _____ Temperature: _____ Cloud Cover Class Daytime <input type="checkbox"/> 1 - Overcast >80% <input type="checkbox"/> 2 - Light 20-80% <input type="checkbox"/> 3 - Sunny <20% Nighttime <input type="checkbox"/> 4 - Clear <50% <input type="checkbox"/> 5 - Overcast >50% Primary Noise Source: _____ Distance: _____ Secondary Noise Sources: _____ Notes: _____ _____ Traffic LDAT: _____ _____ MDT: _____ HDT: _____ Leq: _____ L(10): _____ Lmin: _____ L(33): _____ Lmax: _____ L(50): _____ Peak: _____ L(90): _____
Calibration Start: _____ dB End: _____ dB Response: <input type="checkbox"/> Slow <input type="checkbox"/> Fast <input type="checkbox"/> Peak <input type="checkbox"/> Impulse Weighting: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> Linear Octave Filter: <input type="checkbox"/> NA <input type="checkbox"/> _____ Hz	Calibration Start: _____ dB End: _____ dB Response: <input type="checkbox"/> Slow <input type="checkbox"/> Fast <input type="checkbox"/> Peak <input type="checkbox"/> Impulse Weighting: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> Linear Octave Filter: <input type="checkbox"/> NA <input type="checkbox"/> _____ Hz

sel 76.3
 spl 63.0
 ph 92.5

Note: Provide Sketch of Location on Back.

**Noise Measurement Data For Noise Measurement Number 1
(December 1, 2017)**

Freq Weight : A
 Time Weight : FAST
 Level Range : 30-90
 Max dB : 80.4 - 2017/12/01 17: 31: 16
 Level Range : 30-90
 SEL : 94. 4
 Leq : 66. 7

No. s	Date Time	(dB)				
1	2017/12/01 17: 25: 04	58. 3	61. 9	74. 1	65. 4	62. 9
6	2017/12/01 17: 25: 19	57. 5	73. 3	66. 5	61. 0	67. 6
11	2017/12/01 17: 25: 34	58. 4	55. 4	65. 8	71. 5	67. 9
16	2017/12/01 17: 25: 49	74. 5	71. 4	65. 4	60. 5	58. 0
21	2017/12/01 17: 26: 04	57. 3	67. 4	74. 9	73. 1	63. 0
26	2017/12/01 17: 26: 19	65. 0	61. 0	65. 0	61. 4	60. 4
31	2017/12/01 17: 26: 34	60. 1	65. 1	62. 3	53. 2	48. 1
36	2017/12/01 17: 26: 49	48. 1	50. 7	54. 0	66. 5	65. 0
41	2017/12/01 17: 27: 04	57. 1	49. 9	49. 7	47. 9	48. 0
46	2017/12/01 17: 27: 19	49. 2	47. 4	50. 5	49. 4	52. 3
51	2017/12/01 17: 27: 34	55. 9	59. 0	59. 1	58. 2	61. 3
56	2017/12/01 17: 27: 49	57. 4	67. 2	60. 1	57. 6	70. 2
61	2017/12/01 17: 28: 04	67. 3	57. 7	52. 2	59. 5	66. 1
66	2017/12/01 17: 28: 19	59. 7	68. 3	61. 1	65. 4	57. 0
71	2017/12/01 17: 28: 34	53. 4	60. 3	69. 8	60. 7	74. 4
76	2017/12/01 17: 28: 49	63. 9	56. 8	50. 6	48. 9	55. 7
81	2017/12/01 17: 29: 04	64. 8	72. 6	64. 9	62. 1	57. 6
86	2017/12/01 17: 29: 19	58. 1	61. 4	69. 8	65. 4	60. 8
91	2017/12/01 17: 29: 34	67. 9	62. 8	59. 8	56. 6	53. 7
96	2017/12/01 17: 29: 49	52. 3	54. 1	63. 1	66. 8	58. 7
101	2017/12/01 17: 30: 04	54. 4	59. 1	76. 0	66. 7	72. 8
106	2017/12/01 17: 30: 19	65. 6	66. 7	61. 0	57. 2	61. 0
111	2017/12/01 17: 30: 34	69. 9	68. 0	62. 0	69. 6	60. 6
116	2017/12/01 17: 30: 49	70. 7	68. 2	63. 8	59. 3	53. 8
121	2017/12/01 17: 31: 04	51. 0	56. 9	76. 8	79. 2	76. 3
126	2017/12/01 17: 31: 19	64. 3	61. 2	72. 7	66. 7	57. 8
131	2017/12/01 17: 31: 34	51. 9	48. 0	47. 4	45. 8	45. 9
136	2017/12/01 17: 31: 49	46. 1	48. 2	52. 7	57. 7	70. 3
141	2017/12/01 17: 32: 04	71. 3	66. 7	61. 5	66. 9	74. 4
146	2017/12/01 17: 32: 19	69. 7	62. 7	71. 8	61. 1	59. 4
151	2017/12/01 17: 32: 34	58. 0	54. 7	60. 9	66. 5	57. 4
156	2017/12/01 17: 32: 49	54. 5	56. 1	56. 3	56. 7	51. 0
161	2017/12/01 17: 33: 04	48. 3	47. 2	53. 2	66. 0	77. 7
166	2017/12/01 17: 33: 19	72. 1	63. 5	57. 3	55. 2	53. 5
171	2017/12/01 17: 33: 34	53. 7	59. 1	68. 6	73. 6	66. 3
176	2017/12/01 17: 33: 49	59. 5	54. 4	52. 3	53. 5	56. 7
181	2017/12/01 17: 34: 04	68. 7	74. 0	66. 0	63. 0	62. 4
186	2017/12/01 17: 34: 19	64. 4	70. 7	62. 8	66. 4	65. 9
191	2017/12/01 17: 34: 34	61. 4	55. 4	55. 2	56. 4	66. 4
196	2017/12/01 17: 34: 49	61. 9	54. 9	54. 6	58. 7	55. 6

**Noise Measurement Data For Noise Measurement Number 2
(May 10, 2017)**

Freq Weight : A
 Time Weight : FAST
 Level Range : 40-100
 Max dB : 79.3 - 2009/04/01 22: 46: 30
 Level Range : 40-100
 SEL : 97.4
 Leq : 67.9

No. s	Date Time	(dB)				
1	2009/04/01 22: 45: 55	63.9	60.6	65.5	71.0	75.2
6	2009/04/01 22: 46: 00	75.5	68.6	68.7	73.0	71.0
11	2009/04/01 22: 46: 05	71.2	73.0	69.2	66.4	66.6
16	2009/04/01 22: 46: 10	66.8	69.2	67.9	62.6	58.9
21	2009/04/01 22: 46: 15	56.4	53.9	54.0	56.9	63.9
26	2009/04/01 22: 46: 20	68.7	68.4	67.3	62.5	59.5
31	2009/04/01 22: 46: 25	56.9	56.0	59.3	65.3	71.9
36	2009/04/01 22: 46: 30	77.6	72.1	66.3	65.1	61.1
41	2009/04/01 22: 46: 35	59.2	56.5	54.6	53.5	52.7
46	2009/04/01 22: 46: 40	53.8	55.9	60.6	64.7	70.7
51	2009/04/01 22: 46: 45	72.2	74.0	76.3	71.5	67.4
56	2009/04/01 22: 46: 50	68.0	71.5	69.1	65.1	67.1
61	2009/04/01 22: 46: 55	67.6	68.3	66.2	64.6	63.3
66	2009/04/01 22: 47: 00	64.2	63.7	65.1	66.9	70.5
71	2009/04/01 22: 47: 05	69.8	70.4	66.5	64.0	66.0
76	2009/04/01 22: 47: 10	65.9	64.5	62.2	59.9	58.5
81	2009/04/01 22: 47: 15	54.6	55.3	59.3	61.2	66.1
86	2009/04/01 22: 47: 20	65.6	63.5	62.3	65.9	65.7
91	2009/04/01 22: 47: 25	67.4	69.2	70.6	69.7	69.9
96	2009/04/01 22: 47: 30	73.4	69.5	64.3	60.6	57.4
101	2009/04/01 22: 47: 35	53.7	51.1	52.0	52.1	51.2
106	2009/04/01 22: 47: 40	49.8	50.0	50.6	52.8	61.0
111	2009/04/01 22: 47: 45	59.6	60.2	62.9	58.7	58.4
116	2009/04/01 22: 47: 50	63.6	65.1	64.2	59.7	59.0
121	2009/04/01 22: 47: 55	59.3	59.6	61.7	61.2	59.5
126	2009/04/01 22: 48: 00	59.3	56.3	58.6	64.7	72.3
131	2009/04/01 22: 48: 05	77.8	71.0	72.8	72.8	72.5
136	2009/04/01 22: 48: 10	70.2	67.2	63.7	60.5	58.3
141	2009/04/01 22: 48: 15	57.3	55.6	55.6	56.7	56.5
146	2009/04/01 22: 48: 20	58.1	58.6	60.2	65.1	68.2
151	2009/04/01 22: 48: 25	67.4	67.3	66.8	63.8	60.4
156	2009/04/01 22: 48: 30	57.2	53.5	51.6	50.1	50.6
161	2009/04/01 22: 48: 35	49.9	48.6	48.2	47.9	47.6
166	2009/04/01 22: 48: 40	47.6	48.0	49.3	50.3	51.2
171	2009/04/01 22: 48: 45	52.0	54.4	59.8	65.5	71.1
176	2009/04/01 22: 48: 50	75.8	75.4	72.6	70.6	69.0
181	2009/04/01 22: 48: 55	72.5	73.0	71.1	64.9	65.4
186	2009/04/01 22: 49: 00	63.6	63.5	61.9	58.4	56.5
191	2009/04/01 22: 49: 05	54.9	55.6	59.2	63.1	64.7
196	2009/04/01 22: 49: 10	64.4	61.4	59.7	58.4	56.7
201	2009/04/01 22: 49: 15	59.6	64.8	69.3	73.6	75.2
206	2009/04/01 22: 49: 20	69.9	65.1	61.3	61.6	59.1
211	2009/04/01 22: 49: 25	57.3	56.6	55.2	55.9	57.5
216	2009/04/01 22: 49: 30	60.0	63.3	70.0	73.1	70.5
221	2009/04/01 22: 49: 35	68.3	72.5	71.7	62.4	59.5
226	2009/04/01 22: 49: 40	64.0	70.3	73.9	73.5	70.0
231	2009/04/01 22: 49: 45	67.4	66.6	64.9	60.4	58.1
236	2009/04/01 22: 49: 50	56.4	59.0	62.3	69.0	66.6
241	2009/04/01 22: 49: 55	60.8	55.3	55.5	57.7	64.5
246	2009/04/01 22: 50: 00	66.4	65.8	62.8	59.9	56.7
251	2009/04/01 22: 50: 05	55.4	53.7	51.8	50.9	51.2
256	2009/04/01 22: 50: 10	50.4	50.3	49.3	49.5	50.9
261	2009/04/01 22: 50: 15	54.4	58.6	64.8	65.2	62.9
266	2009/04/01 22: 50: 20	63.2	65.8	65.8	65.7	68.6
271	2009/04/01 22: 50: 25	72.0	73.4	71.1	66.7	61.5
276	2009/04/01 22: 50: 30	61.0	61.8	61.2	60.4	58.1
281	2009/04/01 22: 50: 35	55.3	52.4	50.9	50.5	49.1
286	2009/04/01 22: 50: 40	48.5	48.4	47.6	47.7	47.8
291	2009/04/01 22: 50: 45	47.9	48.3	48.5	49.2	50.4
296	2009/04/01 22: 50: 50	53.3	57.4	63.1	64.3	65.7
301	2009/04/01 22: 50: 55	68.5	71.3	72.4	69.9	69.1
306	2009/04/01 22: 51: 00	71.4	72.6	71.2	71.1	71.6
311	2009/04/01 22: 51: 05	69.3	63.8	65.2	69.2	72.3
316	2009/04/01 22: 51: 10	74.0	70.2	66.3	65.2	68.4
321	2009/04/01 22: 51: 15	70.7	70.2	70.1	69.8	64.1
326	2009/04/01 22: 51: 20	60.6	64.9	69.7	70.4	65.2
331	2009/04/01 22: 51: 25	60.2	56.8	54.9	54.0	55.6
336	2009/04/01 22: 51: 30	59.8	64.9	71.3	72.5	67.5
341	2009/04/01 22: 51: 35	62.6	66.7	67.9	68.3	66.2
346	2009/04/01 22: 51: 40	66.6	68.7	68.1	68.5	71.4
351	2009/04/01 22: 51: 45	73.8	71.0	65.8	60.1	57.8
356	2009/04/01 22: 51: 50	55.4	53.7	52.8	53.0	53.6
361	2009/04/01 22: 51: 55	53.3	52.9	51.0	49.8	50.9
366	2009/04/01 22: 52: 00	50.6	50.2	51.1	53.5	55.6
371	2009/04/01 22: 52: 05	64.2	72.0	75.3	70.5	63.8
376	2009/04/01 22: 52: 10	57.9	53.4	53.0	52.6	52.1
381	2009/04/01 22: 52: 15	58.4	66.2	73.3	77.0	71.3
386	2009/04/01 22: 52: 20	64.7	59.9	62.5	63.6	62.4
391	2009/04/01 22: 52: 25	61.5	61.7	62.5	63.1	62.5
396	2009/04/01 22: 52: 30	62.2	62.8	62.8	65.7	71.6
401	2009/04/01 22: 52: 35	73.9	70.6	64.6	63.3	69.5
406	2009/04/01 22: 52: 40	74.9	75.9	71.2	69.4	65.3
411	2009/04/01 22: 52: 45	60.3	57.0	55.1	56.5	59.0
416	2009/04/01 22: 52: 50	62.2	66.6	68.3	68.5	65.2
421	2009/04/01 22: 52: 55	62.4	62.6	65.1	63.2	62.6

426	2009/04/01	22: 53: 00	62.0	60.8	59.1	55.6	56.7
431	2009/04/01	22: 53: 05	56.6	61.1	65.3	69.8	69.2
436	2009/04/01	22: 53: 10	66.5	61.8	58.9	57.9	54.9
441	2009/04/01	22: 53: 15	53.8	52.9	52.3	51.9	52.4
446	2009/04/01	22: 53: 20	57.8	61.8	63.6	62.6	59.6
451	2009/04/01	22: 53: 25	57.3	52.5	51.5	50.0	48.8
456	2009/04/01	22: 53: 30	49.3	49.1	49.3	49.3	50.6
461	2009/04/01	22: 53: 35	50.9	52.7	53.9	76.4	62.4
466	2009/04/01	22: 53: 40	69.3	71.3	71.5	72.1	76.4
471	2009/04/01	22: 53: 45	71.7	73.2	70.8	66.9	64.3
476	2009/04/01	22: 53: 50	66.7	69.8	69.9	68.1	64.6
481	2009/04/01	22: 53: 55	64.8	68.3	69.7	67.9	61.0
486	2009/04/01	22: 54: 00	58.6	57.0	57.2	56.5	56.4
491	2009/04/01	22: 54: 05	54.8	52.2	51.7	50.7	49.4
496	2009/04/01	22: 54: 10	50.0	49.3	49.2	49.5	50.3
501	2009/04/01	22: 54: 15	51.9	53.1	55.9	60.3	64.2
506	2009/04/01	22: 54: 20	66.6	65.7	60.9	56.0	54.0
511	2009/04/01	22: 54: 25	52.7	53.0	53.7	56.9	62.7
516	2009/04/01	22: 54: 30	64.6	65.8	65.5	68.8	69.1
521	2009/04/01	22: 54: 35	68.1	64.1	64.1	67.5	69.7
526	2009/04/01	22: 54: 40	70.6	70.3	67.2	64.9	67.7
531	2009/04/01	22: 54: 45	67.2	68.0	69.3	65.5	64.7
536	2009/04/01	22: 54: 50	61.0	63.3	58.3	58.4	57.5
541	2009/04/01	22: 54: 55	58.0	57.8	55.0	56.5	56.0
546	2009/04/01	22: 55: 00	54.0	52.6	51.3	50.8	53.8
551	2009/04/01	22: 55: 05	52.4	56.4	59.5	63.4	72.0
556	2009/04/01	22: 55: 10	75.1	71.8	70.0	69.2	73.2
561	2009/04/01	22: 55: 15	71.3	66.0	62.6	59.4	63.8
566	2009/04/01	22: 55: 20	72.6	74.3	66.4	69.1	74.6
571	2009/04/01	22: 55: 25	75.0	68.0	66.2	65.3	62.2
576	2009/04/01	22: 55: 30	59.5	56.9	58.4	64.1	69.9
581	2009/04/01	22: 55: 35	69.2	63.3	62.4	64.1	66.9
586	2009/04/01	22: 55: 40	66.5	65.6	67.0	66.6	63.7
591	2009/04/01	22: 55: 45	68.9	67.9	64.3	60.3	59.7
596	2009/04/01	22: 55: 50	60.5	61.3	65.2	67.8	67.4
601	2009/04/01	22: 55: 55	68.3	73.4	75.5	71.6	62.1
606	2009/04/01	22: 56: 00	59.2	57.5	59.5	63.3	63.7
611	2009/04/01	22: 56: 05	65.9	69.2	70.2	70.3	63.6
616	2009/04/01	22: 56: 10	56.4	52.5	52.0	51.0	49.9
621	2009/04/01	22: 56: 15	47.9	49.3	48.2	47.4	47.6
626	2009/04/01	22: 56: 20	52.0	53.8	57.4	59.4	65.9
631	2009/04/01	22: 56: 25	67.8	67.5	60.6	58.9	57.8
636	2009/04/01	22: 56: 30	61.5	64.2	67.9	67.2	64.6
641	2009/04/01	22: 56: 35	62.6	65.3	64.6	64.6	64.6
646	2009/04/01	22: 56: 40	62.6	60.0	56.0	55.9	52.6
651	2009/04/01	22: 56: 45	50.2	50.0	49.6	49.8	52.0
656	2009/04/01	22: 56: 50	56.1	63.8	70.7	72.9	74.3
661	2009/04/01	22: 56: 55	74.0	69.5	64.3	58.4	63.0
666	2009/04/01	22: 57: 00	69.0	72.5	70.8	64.5	59.8
671	2009/04/01	22: 57: 05	58.8	61.9	64.7	68.3	72.8
676	2009/04/01	22: 57: 10	76.2	74.9	69.3	63.9	61.0
681	2009/04/01	22: 57: 15	58.4	59.8	61.7	65.6	67.9
686	2009/04/01	22: 57: 20	68.9	72.4	72.8	67.8	62.3
691	2009/04/01	22: 57: 25	60.6	64.7	72.7	71.3	65.8
696	2009/04/01	22: 57: 30	61.0	58.6	60.5	67.9	74.3
701	2009/04/01	22: 57: 35	74.8	77.2	72.9	67.5	66.3
706	2009/04/01	22: 57: 40	69.5	73.7	74.0	68.4	66.0
711	2009/04/01	22: 57: 45	65.7	65.0	65.4	66.3	69.4
716	2009/04/01	22: 57: 50	67.0	67.3	67.7	64.5	61.3
721	2009/04/01	22: 57: 55	58.5	58.4	57.4	62.0	64.3
726	2009/04/01	22: 58: 00	66.7	69.7	72.8	75.3	68.4
731	2009/04/01	22: 58: 05	63.8	61.3	58.7	60.5	65.0
736	2009/04/01	22: 58: 10	68.4	73.0	75.0	76.3	75.1
741	2009/04/01	22: 58: 15	75.1	73.3	69.0	65.8	63.2
746	2009/04/01	22: 58: 20	61.6	60.1	58.3	56.9	55.0
751	2009/04/01	22: 58: 25	52.8	51.4	50.4	50.3	51.7
756	2009/04/01	22: 58: 30	50.2	50.7	50.0	53.1	54.1
761	2009/04/01	22: 58: 35	58.0	61.1	65.7	68.2	68.8
766	2009/04/01	22: 58: 40	72.4	71.5	70.7	69.8	66.8
771	2009/04/01	22: 58: 45	65.1	61.1	59.0	59.1	59.6
776	2009/04/01	22: 58: 50	59.7	62.9	63.0	63.9	62.3
781	2009/04/01	22: 58: 55	60.6	62.5	66.8	70.3	66.6
786	2009/04/01	22: 59: 00	65.1	67.4	71.3	73.6	69.3
791	2009/04/01	22: 59: 05	67.8	66.4	68.5	74.1	75.5
796	2009/04/01	22: 59: 10	74.6	75.5	75.9	77.8	76.7
801	2009/04/01	22: 59: 15	75.2	75.2	76.2	73.6	73.3
806	2009/04/01	22: 59: 20	74.4	72.5	73.7	75.9	74.6
811	2009/04/01	22: 59: 25	71.2	70.6	71.0	71.0	76.4
816	2009/04/01	22: 59: 30	73.3	71.4	71.4	68.8	65.6
821	2009/04/01	22: 59: 35	64.4	62.5	61.5	60.7	59.1
826	2009/04/01	22: 59: 40	60.0	57.2	56.4	56.4	55.2
831	2009/04/01	22: 59: 45	56.2	54.1	53.5	53.3	51.9
836	2009/04/01	22: 59: 50	51.6	51.1	51.2	51.1	50.7
841	2009/04/01	22: 59: 55	53.6	56.0	59.6	63.4	66.8
846	2009/04/01	23: 00: 00	70.7	71.9	70.4	67.5	65.4
851	2009/04/01	23: 00: 05	65.5	68.9	77.3	74.4	68.1
856	2009/04/01	23: 00: 10	68.3	70.9	70.9	70.9	69.9
861	2009/04/01	23: 00: 15	70.2	67.3	68.7	72.8	70.2
866	2009/04/01	23: 00: 20	64.4	62.5	64.1	67.7	71.6
871	2009/04/01	23: 00: 25	72.8	70.3	66.9	68.0	70.5
876	2009/04/01	23: 00: 30	70.6	69.9	67.6	65.0	63.5
881	2009/04/01	23: 00: 35	61.0	60.8	59.3	57.9	57.2
886	2009/04/01	23: 00: 40	57.6	62.3	70.2	75.2	74.0
891	2009/04/01	23: 00: 45	73.5	72.6	72.2	66.7	68.4
896	2009/04/01	23: 00: 50	66.6	65.7	68.8	69.7	69.4

**Noise Measurement Data For Noise Measurement Number 3
(May 10, 2017)**

Freq Weight : A
 Time Weight : FAST
 Level Range : 40-100
 Max dB : 63.0 - 2009/04/01 22: 04: 17
 Level Range : 40-100
 SEL : 76.3
 Leq : 46.8

No. s	Date Time	(dB)				
1	2009/04/01 22: 04: 17	52.4	45.6	42.4	38.6	37.6
6	2009/04/01 22: 04: 22	39.5	38.5	39.3	47.7	40.7
11	2009/04/01 22: 04: 27	39.6	42.0	40.4	39.0	39.2
16	2009/04/01 22: 04: 32	40.7	38.0	37.7	38.6	39.3
21	2009/04/01 22: 04: 37	39.0	39.3	40.5	40.5	39.0
26	2009/04/01 22: 04: 42	38.2	39.9	40.9	41.2	40.8
31	2009/04/01 22: 04: 47	37.7	39.2	37.9	38.7	41.7
36	2009/04/01 22: 04: 52	39.1	46.2	43.2	40.1	46.2
41	2009/04/01 22: 04: 57	45.3	44.1	44.4	44.0	45.3
46	2009/04/01 22: 05: 02	47.6	45.4	47.8	45.8	47.6
51	2009/04/01 22: 05: 07	47.2	47.6	48.1	47.8	45.7
56	2009/04/01 22: 05: 12	46.3	45.7	43.6	45.4	48.1
61	2009/04/01 22: 05: 17	48.4	47.8	47.9	47.1	45.7
66	2009/04/01 22: 05: 22	45.2	47.1	47.9	48.5	48.4
71	2009/04/01 22: 05: 27	50.2	48.2	48.0	49.2	49.3
76	2009/04/01 22: 05: 32	49.9	50.4	50.8	49.9	47.8
81	2009/04/01 22: 05: 37	46.7	47.3	47.7	48.0	47.5
86	2009/04/01 22: 05: 42	48.9	47.8	46.7	48.3	46.7
91	2009/04/01 22: 05: 47	51.4	54.2	54.1	53.6	53.7
96	2009/04/01 22: 05: 52	51.4	49.7	50.3	50.9	52.2
101	2009/04/01 22: 05: 57	51.9	51.2	47.4	44.6	44.5
106	2009/04/01 22: 06: 02	47.2	48.3	47.6	48.4	49.4
111	2009/04/01 22: 06: 07	49.7	53.2	51.6	52.3	50.3
116	2009/04/01 22: 06: 12	49.1	48.7	50.6	51.5	49.8
121	2009/04/01 22: 06: 17	48.9	49.1	47.6	47.4	47.4
126	2009/04/01 22: 06: 22	45.7	43.8	42.2	41.9	42.7
131	2009/04/01 22: 06: 27	45.0	44.4	43.3	43.4	45.2
136	2009/04/01 22: 06: 32	47.4	46.2	46.2	45.9	45.3
141	2009/04/01 22: 06: 37	46.0	46.8	50.8	51.3	51.2
146	2009/04/01 22: 06: 42	51.6	54.4	53.2	52.1	51.4
151	2009/04/01 22: 06: 47	51.9	52.5	51.6	52.3	53.0
156	2009/04/01 22: 06: 52	53.6	53.7	54.8	54.7	54.7
161	2009/04/01 22: 06: 57	53.3	53.8	52.2	52.3	51.8
166	2009/04/01 22: 07: 02	53.7	52.6	51.2	51.6	50.2
171	2009/04/01 22: 07: 07	48.8	50.4	50.5	51.9	50.6
176	2009/04/01 22: 07: 12	49.8	49.3	50.6	53.1	54.1
181	2009/04/01 22: 07: 17	52.9	51.1	53.0	53.1	53.2
186	2009/04/01 22: 07: 22	52.5	51.3	51.6	51.9	50.8
191	2009/04/01 22: 07: 27	52.6	52.5	51.7	52.5	51.1
196	2009/04/01 22: 07: 32	50.7	52.5	51.8	51.5	50.3
201	2009/04/01 22: 07: 37	50.0	50.6	52.3	50.8	52.6
206	2009/04/01 22: 07: 42	52.2	52.2	50.1	50.4	50.0
211	2009/04/01 22: 07: 47	51.3	51.6	52.8	53.0	52.6
216	2009/04/01 22: 07: 52	53.2	52.5	53.8	53.1	53.2
221	2009/04/01 22: 07: 57	54.3	53.6	52.8	52.0	51.6
226	2009/04/01 22: 08: 02	51.4	50.6	51.8	51.7	52.4
231	2009/04/01 22: 08: 07	51.8	51.1	51.4	52.0	51.5
236	2009/04/01 22: 08: 12	52.5	52.1	50.5	52.0	50.2
241	2009/04/01 22: 08: 17	53.2	54.4	54.4	54.1	54.8
246	2009/04/01 22: 08: 22	53.2	52.6	51.8	51.1	50.8
251	2009/04/01 22: 08: 27	50.0	50.8	49.4	49.2	49.4
256	2009/04/01 22: 08: 32	47.8	42.0	41.0	44.6	41.1
261	2009/04/01 22: 08: 37	41.1	39.6	39.6	44.5	39.6
266	2009/04/01 22: 08: 42	46.8	42.7	43.7	41.8	39.8
271	2009/04/01 22: 08: 47	43.9	48.3	42.0	41.7	40.5
276	2009/04/01 22: 08: 52	43.0	39.9	39.6	39.1	42.4
281	2009/04/01 22: 08: 57	39.3	40.8	41.6	42.3	40.0
286	2009/04/01 22: 09: 02	41.6	41.2	40.7	45.5	43.6
291	2009/04/01 22: 09: 07	44.4	39.4	40.3	43.5	44.0
296	2009/04/01 22: 09: 12	40.2	42.4	40.3	40.3	41.7
301	2009/04/01 22: 09: 17	42.0	40.0	38.4	39.3	38.2
306	2009/04/01 22: 09: 22	39.7	38.9	38.8	40.1	42.2
311	2009/04/01 22: 09: 27	41.2	41.6	39.8	41.8	42.4
316	2009/04/01 22: 09: 32	41.3	44.2	42.2	39.6	44.8
321	2009/04/01 22: 09: 37	40.6	42.6	44.0	43.2	42.2
326	2009/04/01 22: 09: 42	41.9	42.9	42.7	42.3	41.3
331	2009/04/01 22: 09: 47	43.9	39.9	39.8	40.2	39.5
336	2009/04/01 22: 09: 52	39.8	38.7	41.9	45.5	41.0
341	2009/04/01 22: 09: 57	40.9	41.1	44.2	40.3	39.5
346	2009/04/01 22: 10: 02	39.5	43.2	40.8	41.5	42.5
351	2009/04/01 22: 10: 07	40.5	40.9	40.5	42.5	41.2
356	2009/04/01 22: 10: 12	41.1	40.6	40.0	39.8	39.4
361	2009/04/01 22: 10: 17	42.7	40.3	42.7	41.9	41.5
366	2009/04/01 22: 10: 22	42.1	41.0	40.5	41.6	42.6
371	2009/04/01 22: 10: 27	40.2	39.2	39.7	39.4	39.7
376	2009/04/01 22: 10: 32	41.4	39.7	39.3	39.3	39.0
381	2009/04/01 22: 10: 37	39.3	39.0	39.2	43.7	43.3
386	2009/04/01 22: 10: 42	39.0	39.2	39.2	41.5	39.5
391	2009/04/01 22: 10: 47	40.3	41.6	41.1	39.9	39.7
396	2009/04/01 22: 10: 52	40.4	43.8	45.7	44.7	48.3
401	2009/04/01 22: 10: 57	47.7	46.5	40.7	39.6	40.2
406	2009/04/01 22: 11: 02	41.6	40.5	42.0	46.1	49.7
411	2009/04/01 22: 11: 07	49.3	40.6	40.8	41.2	41.1
416	2009/04/01 22: 11: 12	40.6	43.5	45.9	43.1	41.1
421	2009/04/01 22: 11: 17	41.9	41.0	42.9	53.0	56.1

426	2009/04/01	22:11:22	56.4	55.6	56.2	55.1	55.5
431	2009/04/01	22:11:27	53.3	52.1	53.0	49.1	48.5
436	2009/04/01	22:11:32	48.5	48.8	47.1	48.9	42.4
441	2009/04/01	22:11:37	47.4	40.5	46.1	48.7	40.0
446	2009/04/01	22:11:42	44.5	47.1	47.6	45.2	48.0
451	2009/04/01	22:11:47	43.1	39.9	44.7	46.6	42.6
456	2009/04/01	22:11:52	38.9	38.4	42.1	45.5	44.8
461	2009/04/01	22:11:57	45.0	44.7	38.8	45.1	46.9
466	2009/04/01	22:12:02	47.4	46.9	46.0	45.2	43.1
471	2009/04/01	22:12:07	45.8	45.7	45.2	43.2	44.6
476	2009/04/01	22:12:12	45.2	45.4	43.6	41.0	41.8
481	2009/04/01	22:12:17	44.0	44.8	44.0	43.6	44.2
486	2009/04/01	22:12:22	44.3	43.8	44.5	40.4	42.7
491	2009/04/01	22:12:27	42.2	42.7	44.4	44.2	41.8
496	2009/04/01	22:12:32	42.4	43.8	43.6	44.5	44.9
501	2009/04/01	22:12:37	44.8	43.9	42.8	43.4	43.1
506	2009/04/01	22:12:42	38.7	39.1	39.8	42.2	43.2
511	2009/04/01	22:12:47	43.1	42.6	42.4	43.7	43.5
516	2009/04/01	22:12:52	44.1	44.2	45.7	42.8	42.3
521	2009/04/01	22:12:57	45.1	44.2	43.2	42.8	41.8
526	2009/04/01	22:13:02	43.5	41.2	40.2	42.6	41.1
531	2009/04/01	22:13:07	43.0	44.2	40.9	40.7	42.2
536	2009/04/01	22:13:12	42.4	42.1	43.8	43.2	42.7
541	2009/04/01	22:13:17	43.9	41.8	44.1	46.7	45.5
546	2009/04/01	22:13:22	44.2	43.6	42.9	43.3	42.6
551	2009/04/01	22:13:27	42.9	43.3	45.0	43.5	44.5
556	2009/04/01	22:13:32	43.9	45.1	44.2	43.6	43.7
561	2009/04/01	22:13:37	46.3	44.1	43.8	45.5	44.1
566	2009/04/01	22:13:42	43.9	43.7	43.8	43.6	44.7
571	2009/04/01	22:13:47	44.5	43.7	43.5	42.1	41.5
576	2009/04/01	22:13:52	42.7	53.6	49.8	44.7	52.4
581	2009/04/01	22:13:57	44.7	44.1	45.2	45.3	44.3
586	2009/04/01	22:14:02	44.8	45.4	44.9	43.9	43.3
591	2009/04/01	22:14:07	43.2	43.9	43.8	43.6	43.6
596	2009/04/01	22:14:12	42.9	43.1	44.2	44.5	42.8
601	2009/04/01	22:14:17	42.7	43.4	44.6	44.1	43.5
606	2009/04/01	22:14:22	43.5	43.1	43.3	41.4	42.2
611	2009/04/01	22:14:27	40.7	40.4	39.5	40.0	40.2
616	2009/04/01	22:14:32	40.1	39.9	40.0	39.7	39.6
621	2009/04/01	22:14:37	39.6	39.6	39.5	39.4	40.9
626	2009/04/01	22:14:42	42.0	41.5	41.2	41.4	40.7
631	2009/04/01	22:14:47	40.7	40.6	40.9	41.1	41.2
636	2009/04/01	22:14:52	40.7	41.8	41.6	41.0	41.4
641	2009/04/01	22:14:57	41.4	42.4	41.5	41.9	41.9
646	2009/04/01	22:15:02	42.1	42.5	43.0	42.5	42.0
651	2009/04/01	22:15:07	42.9	42.6	43.0	42.7	42.4
656	2009/04/01	22:15:12	42.1	43.5	41.2	41.8	41.9
661	2009/04/01	22:15:17	42.0	43.2	42.3	43.2	42.5
666	2009/04/01	22:15:22	42.4	42.8	42.9	42.8	42.8
671	2009/04/01	22:15:27	43.0	42.2	42.4	41.4	41.9
676	2009/04/01	22:15:32	42.8	42.5	41.9	42.0	42.4
681	2009/04/01	22:15:37	43.0	42.3	42.7	43.5	43.5
686	2009/04/01	22:15:42	42.1	43.0	42.0	41.5	41.3
691	2009/04/01	22:15:47	41.7	42.1	42.4	43.1	43.0
696	2009/04/01	22:15:52	42.4	42.4	43.2	42.3	42.6
701	2009/04/01	22:15:57	42.5	42.6	42.4	42.0	42.5
706	2009/04/01	22:16:02	42.1	42.3	42.0	41.7	41.1
711	2009/04/01	22:16:07	41.7	41.7	42.3	42.3	41.8
716	2009/04/01	22:16:12	42.7	42.5	43.5	42.3	42.2
721	2009/04/01	22:16:17	42.2	42.4	42.4	42.1	42.2
726	2009/04/01	22:16:22	42.0	43.5	42.6	41.8	41.8
731	2009/04/01	22:16:27	41.6	42.5	42.9	42.0	41.9
736	2009/04/01	22:16:32	42.4	42.6	42.7	42.4	42.5
741	2009/04/01	22:16:37	42.7	41.9	42.2	42.0	42.6
746	2009/04/01	22:16:42	43.1	42.7	43.6	41.3	41.8
751	2009/04/01	22:16:47	42.2	42.0	42.4	42.1	41.7
756	2009/04/01	22:16:52	42.0	41.6	42.0	42.1	42.5
761	2009/04/01	22:16:57	42.5	43.8	42.1	42.4	42.7
766	2009/04/01	22:17:02	43.0	42.7	42.0	41.9	41.4
771	2009/04/01	22:17:07	41.5	41.5	41.4	41.1	40.9
776	2009/04/01	22:17:12	41.7	41.3	41.3	41.9	42.0
781	2009/04/01	22:17:17	41.9	42.1	42.1	42.1	41.9
786	2009/04/01	22:17:22	40.9	41.2	41.4	42.7	43.4
791	2009/04/01	22:17:27	42.2	41.4	41.7	41.7	41.3
796	2009/04/01	22:17:32	41.8	43.4	42.5	42.4	42.5
801	2009/04/01	22:17:37	41.9	41.9	43.3	44.1	44.0
806	2009/04/01	22:17:42	43.3	41.3	42.2	41.4	41.4
811	2009/04/01	22:17:47	45.0	43.7	44.1	42.0	41.9
816	2009/04/01	22:17:52	42.3	42.2	42.1	41.7	42.3
821	2009/04/01	22:17:57	42.7	41.9	41.6	41.6	42.0
826	2009/04/01	22:18:02	42.1	42.5	46.9	45.7	43.8
831	2009/04/01	22:18:07	43.8	42.6	42.5	42.5	43.6
836	2009/04/01	22:18:12	42.2	41.6	41.3	41.7	41.9
841	2009/04/01	22:18:17	41.7	42.4	42.8	43.0	42.8
846	2009/04/01	22:18:22	43.1	43.4	44.2	43.6	43.8
851	2009/04/01	22:18:27	43.3	43.2	44.3	42.6	42.3
856	2009/04/01	22:18:32	43.4	43.3	42.7	42.6	43.9
861	2009/04/01	22:18:37	43.7	43.4	43.9	43.5	44.3
866	2009/04/01	22:18:42	43.8	43.9	43.0	43.0	43.1
871	2009/04/01	22:18:47	43.6	43.3	43.4	43.1	43.0
876	2009/04/01	22:18:52	43.2	43.3	43.3	43.1	42.5
881	2009/04/01	22:18:57	42.7	43.1	43.1	43.3	43.1
886	2009/04/01	22:19:02	43.1	43.4	43.9	43.6	43.7
891	2009/04/01	22:19:07	43.4	43.4	43.5	43.1	42.8
896	2009/04/01	22:19:12	43.1	43.2	43.9	44.0	43.8

Phased Noise Estimates for Non-Potable Connections Project

Heavy Equipment Noise Impact Estimation Non-Potable Connections Project

Scenario: Site Preparation

Receptor Location: Single-Family Residential 25 Feet

Noise Source	Ave. Maximum SPL @ 50 ft., dBA	Number	Percentage of Workday Hours In Use	Effective Use Factor *	Distance, Ft.	Leq, dBA
Graders [3]	85	1	0.8	0.5	25	87
Rubber Tired Dozers [2]	85	1	0.7	0.5	25	86
Tractor/Loader/Backhoe [2]	85	1	0.8	0.5	25	87
TOTAL Leq DURING NORMAL OPE	92					dBA
Daytime Ambient without Equipment	72					dBA
Nighttime Ambient without Equipmen	0					dBA
Daytime Hours Operating:	8					
Evening Hours Operating:	0					
Nighttime Hours Operating:	0					
<i>Combined Daytime Hourly Leq:</i>	92					dBA
<i>Combined Nighttime Hourly Leq:</i>	0					dBA
ESTIMATED Ldn:	87					dBA
ESTIMATED CNEL:	87					dBA

Distance attenuation assumed at: 6 dBA per doubling of distance

Notes: #N/A = Not Applicable

* Assumed percentage of time that equipment is operating at near maximum sound level.

* Equipment type per assumed equipment type and duration

Heavy Equipment Noise Impact Estimation Non-Potable Connections Project

Scenario: Site Preparation

Receptor Location: Multi-Family Residential 70 Feet

Noise Source	Ave. Maximum SPL @ 50 ft., dBA	Number	Percentage of Workday Hours In Use	Effective Use Factor *	Distance, Ft.	Leq, dBA
Graders [3]	85	1	0.8	0.5	70	78
Rubber Tired Dozers [2]	85	1	0.7	0.5	70	78
Tractor/Loader/Backhoe [2]	85	1	0.8	0.5	70	78
TOTAL Leq DURING NORMAL OPE	83					dBA
Daytime Ambient without Equipment	72					dBA
Nighttime Ambient without Equipmen	0					dBA
Daytime Hours Operating:	8					
Evening Hours Operating:	0					
Nighttime Hours Operating:	0					
<i>Combined Daytime Hourly Leq:</i>	83					<i>dBA</i>
<i>Combined Nighttime Hourly Leq:</i>	0					<i>dBA</i>
ESTIMATED Ldn:	79					dBA
ESTIMATED CNEL:	79					dBA

Distance attenuation assumed at: 6 dBA per doubling of distance

Notes: #N/A = Not Applicable

* Assumed percentage of time that equipment is operating at near maximum sound level.

* Equipment type per assumed equipment type and duration

Heavy Equipment Noise Impact Estimation Non-Potable Connections Project

Scenario: Site Preparation

Receptor Location: Single-Family Residential 100 Feet

Noise Source	Ave. Maximum SPL @ 50 ft., dBA	Number	Percentage of Workday Hours In Use	Effective Use Factor *	Distance, Ft.	Leq, dBA
Graders [3]	85	1	0.8	0.5	100	75
Rubber Tired Dozers [2]	85	1	0.7	0.5	100	74
Tractor/Loader/Backhoe [2]	85	1	0.8	0.5	100	75

TOTAL Leq DURING NORMAL OPE 80 dBA

Daytime Ambient without Equipment 72 dBA

Nighttime Ambient without Equipmen 0 dBA

Daytime Hours Operating: 8

Evening Hours Operating: 0

Nighttime Hours Operating: 0

Combined Daytime Hourly Leq: 80 dBA

Combined Nighttime Hourly Leq: 0 dBA

ESTIMATED Ldn: 76 dBA

ESTIMATED CNEL: 76 dBA

Distance attenuation assumed at: 6 dBA per doubling of distance

Notes: #N/A = Not Applicable

* Assumed percentage of time that equipment is operating at near maximum sound level.

* Equipment type per assumed equipment type and duration

Heavy Equipment Noise Impact Estimation Non-Potable Connections Project

Scenario: Site Preparation

Receptor Location: Single Family Residential 150 Feet

Noise Source	Ave. Maximum SPL @ 50 ft., dBA	Number	Percentage of Workday Hours In Use	Effective Use Factor *	Distance, Ft.	Leq, dBA
Graders [3]	85	1	0.8	0.5	150	71
Rubber Tired Dozers [2]	85	1	0.7	0.5	150	71
Tractor/Loader/Backhoe [2]	85	1	0.8	0.5	150	71
TOTAL Leq DURING NORMAL OPE	76					dBA
Daytime Ambient without Equipment	72					dBA
Nighttime Ambient without Equipmen	0					dBA
Daytime Hours Operating:	8					
Evening Hours Operating:	0					
Nighttime Hours Operating:	0					
<i>Combined Daytime Hourly Leq:</i>	<i>78</i>					<i>dBA</i>
<i>Combined Nighttime Hourly Leq:</i>	<i>0</i>					<i>dBA</i>
ESTIMATED Ldn:	74					dBA
ESTIMATED CNEL:	74					dBA

Distance attenuation assumed at: 6 dBA per doubling of distance

Notes: #N/A = Not Applicable

* Assumed percentage of time that equipment is operating at near maximum sound level.

* Equipment type per assumed equipment type and duration

Heavy Equipment Noise Impact Estimation Non-Potable Connections Project

Scenario: Grading

Receptor Location: Single-Family Residential 25 Feet

Noise Source	Ave. Maximum SPL @ 50 ft., dBA	Number	Percentage of Workday Hours In Use	Effective Use Factor *	Distance, Ft.	Leq, dBA
Graders [3]	85	1	0.6	0.5	25	86
Rubber Tired Dozers [2]	85	1	0.6	0.5	25	86
Tractor/Loader/Backhoe [2]	85	1	0.7	0.5	25	86
TOTAL Leq DURING NORMAL OPE	91					dBA
Daytime Ambient without Equipment	72					dBA
Nighttime Ambient without Equipmen	0					dBA
Daytime Hours Operating:	8					
Evening Hours Operating:	0					
Nighttime Hours Operating:	0					
<i>Combined Daytime Hourly Leq:</i>	<i>91</i>					<i>dBA</i>
<i>Combined Nighttime Hourly Leq:</i>	<i>0</i>					<i>dBA</i>
ESTIMATED Ldn:	86					dBA
ESTIMATED CNEL:	86					dBA

Distance attenuation assumed at: 6 dBA per doubling of distance

Notes: #N/A = Not Applicable

* Assumed percentage of time that equipment is operating at near maximum sound level.

* Equipment type per assumed equipment type and duration

Heavy Equipment Noise Impact Estimation Non-Potable Connections Project

Scenario: Grading

Receptor Location: Multi-Family Residential 70 Feet

Noise Source	Ave. Maximum SPL @ 50 ft., dBA	Number	Percentage of Workday Hours In Use	Effective Use Factor *	Distance, Ft.	Leq, dBA
Graders [3]	85	1	0.6	0.5	70	77
Rubber Tired Dozers [2]	85	1	0.6	0.5	70	77
Tractor/Loader/Backhoe [2]	85	1	0.7	0.5	70	78
TOTAL Leq DURING NORMAL OPE	82					dBA
Daytime Ambient without Equipment	72					dBA
Nighttime Ambient without Equipmen	0					dBA
Daytime Hours Operating:	8					
Evening Hours Operating:	0					
Nighttime Hours Operating:	0					
<i>Combined Daytime Hourly Leq:</i>	<i>82</i>					<i>dBA</i>
<i>Combined Nighttime Hourly Leq:</i>	<i>0</i>					<i>dBA</i>
ESTIMATED Ldn:	78					dBA
ESTIMATED CNEL:	78					dBA

Distance attenuation assumed at: 6 dBA per doubling of distance

Notes: #N/A = Not Applicable

* Assumed percentage of time that equipment is operating at near maximum sound level.

* Equipment type per assumed equipment type and duration

Heavy Equipment Noise Impact Estimation Non-Potable Connections Project

Scenario: Grading

Receptor Location: Single-Family Residential 100 Feet

Noise Source	Ave. Maximum SPL @ 50 ft., dBA	Number	Percentage of Workday Hours In Use	Effective Use Factor *	Distance, Ft.	Leq, dBA
Graders [3]	85	1	0.6	0.5	100	74
Rubber Tired Dozers [2]	85	1	0.6	0.5	100	74
Tractor/Loader/Backhoe [2]	85	1	0.7	0.5	100	74

TOTAL Leq DURING NORMAL OPE 79 dBA

Daytime Ambient without Equipment 72 dBA

Nighttime Ambient without Equipmen 0 dBA

Daytime Hours Operating: 8

Evening Hours Operating: 0

Nighttime Hours Operating: 0

Combined Daytime Hourly Leq: 80 dBA

Combined Nighttime Hourly Leq: 0 dBA

***ESTIMATED Ldn:* 75 dBA**

***ESTIMATED CNEL:* 75 dBA**

Distance attenuation assumed at: 6 dBA per doubling of distance

Notes: #N/A = Not Applicable

* Assumed percentage of time that equipment is operating at near maximum sound level.

* Equipment type per assumed equipment type and duration

Heavy Equipment Noise Impact Estimation Non-Potable Connections Project

Scenario: Grading

Receptor Location: Single-Family Residential 150 Feet

Noise Source	Ave. Maximum SPL @ 50 ft., dBA	Number	Percentage of Workday Hours In Use	Effective Use Factor *	Distance, Ft.	Leq, dBA
Graders [3]	85	1	0.6	0.5	150	70
Rubber Tired Dozers [2]	85	1	0.6	0.5	150	70
Tractor/Loader/Backhoe [2]	85	1	0.7	0.5	150	71

TOTAL Leq DURING NORMAL OPE 75 dBA

Daytime Ambient without Equipment 72 dBA

Nighttime Ambient without Equipmen 0 dBA

Daytime Hours Operating: 8

Evening Hours Operating: 0

Nighttime Hours Operating: 0

Combined Daytime Hourly Leq: 77 dBA

Combined Nighttime Hourly Leq: 0 dBA

ESTIMATED Ldn: 73 dBA

ESTIMATED CNEL: 73 dBA

Distance attenuation assumed at: 6 dBA per doubling of distance

Notes: #N/A = Not Applicable

* Assumed percentage of time that equipment is operating at near maximum sound level.

* Equipment type per assumed equipment type and duration

Heavy Equipment Noise Impact Estimation Non-Potable Connections Project

2 3 4.5 6
1 1.5 2

Scenario: Buiding Construction

Receptor Location: Single-Family Residential 150 Feet

Noise Source	Ave. Maximum SPL @ 50 ft., dBA	Number	Percentage of Workday Hours In Use	Effective Use Factor ¹	Distance, Ft.	Leq, dBA		
Cranes [3]	85	1	0.6	0.5	150	70	94868330	10540926
Generators [3]	82	1	0.8	0.5	150	68	63395728	7043969.7
Welders [3]	73	3	0.8	0.5	150	64	23943148	2660349.8
Tractor/Loader/Backhoe[2]	85	1	0.6	0.5	150	70	94868330	10540926

TOTAL Leq DURING NORMAL OF 75 dBA

30786171

Daytime Ambient without Equipmer	72	dBA
Nighttime Ambient without Equipme	0	dBA
Daytime Hours Operating:	8	
Evening Hours Operating:	0	
Nighttime Hours Operating:	0	
<i>Combined Daytime Hourly Leq:</i>	77	dBA
<i>Combined Nighttime Hourly Leq:</i>	0	dBA
ESTIMATED Ldn:	73	dBA
ESTIMATED CNEL:	73	dBA

Distance attenuation assumed at: 6 dBA per doubling of distance

Notes: #N/A = Not Applicable

* Assumed percentage of time that equipment is operating at near maximum sound level.

* Equipment type per assumed equipment type and duration

Equipment Use Source:

[2] Federal Transit Administration (FTA) (2006), Transit Noise and Vibration Assessment

[3] Federal Highway Administration (FHWA) (2006), *Construction Noise Handbook*.

Accessed at https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/

Heavy Equipment Noise Impact Estimation Non-Potable Connections Project

Scenario: Paving
 Receptor Location: Single-Family Residential 25 Feet

2 3 4.5 6
 1 1.5 2

Noise Source	Ave. Maximum SPL @ 50 ft., dBA	Number	Percentage of Workday Hours In Use	Effective Use Factor	Distance, Ft.	Leq, dBA		
Cement and Mortar Mixers[2]	85	1	0.6	0.5	25	86	94868330	379473319
Pavers[2]	89	1	0.6	0.5	25	90	238298470	953193882
Paving Equipment[3]	85	1	0.8	0.5	25	87	126491106	505964426
Rollers[2]	74	1	0.7	0.5	25	75	8791602.5	35166410
Tractor/Loader/Backhoe[2]	85	1	0.8	0.5	25	87	126491106	505964426

TOTAL Leq DURING NORMAL OF 94 dBA

2.38E+09

Daytime Ambient without Equipmer	72	dBA
Nighttime Ambient without Equipme	0	dBA
Daytime Hours Operating:	8	
Evening Hours Operating:	0	
Nighttime Hours Operating:	0	
Combined Daytime Hourly Leq:	94	dBA
Combined Nighttime Hourly Leq:	0	dBA
ESTIMATED Ldn:	89	dBA
ESTIMATED CNEL:	89	dBA

Distance attenuation assumed at: 6 dBA per doubling of distance

Notes: #N/A = Not Applicable

* Assumed percentage of time that equipment is operating at near maximum sound level.

* Equipment type per assumed equipment type and duration

Equipment Use Source:

[2] Federal Transit Administration (FTA) (2006), Transit Noise and Vibration Assessment

[3] Federal Highway Administration (FHWA) (2006), Construction Noise Handbook.

Accessed at https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/

Heavy Equipment Noise Impact Estimation Non-Potable Connections Project

Scenario: Paving
 Receptor Location: Multi-Family Residential 70 Feet

2 3 4.5 6
 1 1.5 2

Noise Source	Ave. Maximum SPL @ 50 ft., dBA	Number	Percentage of Workday Hours In Use	Effective Use Factor	Distance, Ft.	Leq, dBA		
Cement and Mortar Mixers[2]	85	1	0.6	0.5	70	77	94868330	48402209
Pavers[2]	89	1	0.6	0.5	70	81	238298470	121580852
Paving Equipment[3]	85	1	0.8	0.5	70	78	126491106	64536279
Rollers[2]	74	1	0.7	0.5	70	67	8791602.5	4485511.5
Tractor/Loader/Backhoe[2]	85	1	0.8	0.5	70	78	126491106	64536279

TOTAL Leq DURING NORMAL OF 85 dBA

303541130

Daytime Ambient without Equipmen 72 dBA
 Nighttime Ambient without Equipme 0 dBA
 Daytime Hours Operating: 8
 Evening Hours Operating: 0
 Nighttime Hours Operating: 0
 Combined Daytime Hourly Leq: 85 dBA
 Combined Nighttime Hourly Leq: 0 dBA
ESTIMATED Ldn: 80 dBA
ESTIMATED CNEL: 80 dBA

Distance attenuation assumed at: 6 dBA per doubling of distance
 Notes: #N/A = Not Applicable

- * Assumed percentage of time that equipment is operating at near maximum sound level.
- * Equipment type per assumed equipment type and duration

Equipment Use Source:

[2] Federal Transit Administration (FTA) (2006), Transit Noise and Vibration Assessment
 [3] Federal Highway Administration (FHWA) (2006), *Construction Noise Handbook*.
 Accessed at https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/

