

Appendix J

Noise Calculation Worksheets



ArtCenter College Master Plan Project EIR

Noise Calculations Worksheets

Provided by Acoustical Engineering Services

Ambient Noise Measurements

Location: R1
 Date: 10/18/2016

Time	Overload	Leq	Lmax	L10	L90
10:55:08 AM	No	52.3	57.6	54.9	49.2
10:56:08 AM	No	51.6	55.9	53.6	49.3
10:57:08 AM	No	54.8	59.4	57.3	51.3
10:58:08 AM	No	52.7	56.9	54.6	50.9
10:59:08 AM	No	60.6	72.3	60	50.5
11:00:08 AM	No	55.8	68.7	56.1	49.3
11:01:08 AM	No	58.2	69	62.5	48.7
11:02:08 AM	No	55.8	61.7	57.2	54
11:03:08 AM	No	56.1	69.4	56.9	52.8
11:04:08 AM	No	55.7	62.7	59.2	50.2
11:05:08 AM	No	56.2	60.2	58.6	51.3
11:06:08 AM	No	54.6	59.7	57.7	48.6
11:07:08 AM	No	56.2	59.4	57.9	54.1
11:08:08 AM	No	55.9	59.8	58.5	51
11:09:08 AM	No	51.5	58.3	53.9	49.2
		55.9			

Time	Overload	Leq	Lmax	L10	L90
10:16:24 PM	No	58.7	68.9	62.8	46
10:17:24 PM	No	49.4	57.2	52.9	45.2
10:18:24 PM	No	58.1	72.8	58.4	46.3
10:19:24 PM	No	60.4	72.8	62.5	47.4
10:20:24 PM	No	47.7	54.1	49.5	45.6
10:21:24 PM	No	49.9	59.2	53.1	46.8
10:22:24 PM	No	51.9	58.5	55	48.5
10:23:24 PM	No	50.3	57.2	52.7	47.5
10:24:24 PM	No	50.8	62.1	54.2	46.8
10:25:24 PM	No	56.3	62.7	60.5	50.1
10:26:24 PM	No	61	78	58.7	48.3
10:27:24 PM	No	49.6	56.1	52.5	47
10:28:24 PM	No	50.1	57.9	52.9	47.6
10:29:24 PM	No	52.3	60.4	56.9	46.2
10:30:24 PM	No	49.1	59.1	52	45.5
		55.4			

Location: R2 -
 Date: 10/18/2016

Time	Overload	Leq	Lmax	L10	L90
11:19:09 AM	No	62.2	70.4	65.6	52.8
11:20:09 AM	No	63.5	70.4	68.7	51.1
11:21:09 AM	No	67.6	73	71.6	54
11:22:09 AM	No	60.3	68.8	64.3	50.6
11:23:09 AM	No	64.7	72.1	69.3	50.9
11:24:09 AM	No	67.4	77.4	71.8	56.1
11:25:09 AM	No	57.5	66.7	62.1	49.5
11:26:09 AM	No	64.5	69.5	67.4	56.5
11:27:09 AM	No	64	71.4	69.3	52.9
11:28:09 AM	No	65.6	73.4	70.6	56
11:29:09 AM	No	64.2	71.8	69.4	51
11:30:09 AM	No	59.1	71.5	61.4	49
11:31:09 AM	No	62.3	71.8	66.2	50.1
11:32:09 AM	No	62.4	72.6	66.3	53.1
11:33:09 AM	No	64.1	71.1	68.4	52.4
		64.1			

Time	Overload	Leq	Lmax	L10	L90
10:36:22 PM	No	55.9	66.1	58	48.7
10:37:22 PM	No	56	64.8	59.2	49
10:38:22 PM	No	56.4	67.3	58.2	48
10:39:22 PM	No	57.6	66.1	61.5	52.5
10:40:22 PM	No	59.3	70.5	61.1	48.7
10:41:22 PM	No	58.3	69.3	62.3	49.9
10:42:22 PM	No	55.6	66	59.6	49.3
10:43:22 PM	No	51.2	56	53.9	49.1
10:44:22 PM	No	60.2	69.7	64	51.5
10:45:22 PM	No	59.9	70.4	63.6	48.6
10:46:22 PM	No	60.1	66.6	65	51.4
10:47:22 PM	No	57.7	64.3	62.3	49.8
10:48:22 PM	No	56.4	66.4	59.2	48.7
10:49:22 PM	No	60.5	67.2	65.7	48.6
10:50:22 PM	No	54.8	66.3	58.2	49.3
		57.9			

Location: R3
 Date: 10/18/2016

Time	Overload	Leq	Lmax	L10	L90
11:40:52 AM	No	65.4	70.9	69.4	56.3
11:41:52 AM	No	65.2	72.8	68.7	57.1
11:42:52 AM	No	67.1	74.2	69.8	60.9
11:43:52 AM	No	65.1	72.1	68.5	59.4
11:44:52 AM	No	66.6	71.7	70.8	54.9
11:45:52 AM	No	63.1	71.7	66.8	54.4
11:46:52 AM	No	57.1	65.6	61.2	50.1
11:47:52 AM	No	68.1	74.5	72.6	60.4
11:48:52 AM	No	65.7	70.8	69.5	57.5
11:49:52 AM	No	69.1	76.1	73.3	63.9
11:50:52 AM	No	68.1	76.1	70	62.9
11:51:52 AM	No	66.3	70.4	69.5	62.7
11:52:52 AM	No	67	72.8	69.6	61.1
11:53:52 AM	No	64.7	72.4	68.1	58.9
11:54:52 AM	No	65.1	69.8	67.9	60.3

66.2

Time	Overload	Leq	Lmax	L10	L90
10:56:30 PM	No	63.6	71.2	67.3	55.9
10:57:30 PM	No	58.4	68.6	63.7	47.6
10:58:30 PM	No	61.9	69.3	65.5	55.6
10:59:30 PM	No	62.6	70.9	68	46.4
11:00:30 PM	No	66.9	74.7	70.9	49.8
11:01:30 PM	No	62.1	70.4	67.8	47.2
11:02:30 PM	No	61.6	69.8	65.5	46.5
11:03:30 PM	No	63.9	74.8	68.8	47.7
11:04:30 PM	No	64.6	72.5	67.7	56.7
11:05:30 PM	No	65.9	71.7	69.5	59.1
11:06:30 PM	No	64	71.2	68.6	55
11:07:30 PM	No	65.3	71.5	69.8	52.4
11:08:30 PM	No	59.7	67	65.2	47.7
11:09:30 PM	No	66.5	74.3	70.4	51.9
11:10:30 PM	No	62.7	70.4	68.6	50.4

63.9

Location: R4
Date: 10/18/2016

Time	Overload	Leq	Lmax	L10	L90
12:59:03 PM	No	73.3	88.4	68.9	61.1
1:00:03 PM	No	65.1	70.4	68.6	60.6
1:01:03 PM	No	65.1	70.4	67.7	60.5
1:02:03 PM	No	69.3	81.4	71.2	57.5
1:03:03 PM	No	66.1	71.1	69	58.1
1:04:03 PM	No	63.1	69.3	67.2	53.4
1:05:03 PM	No	67.3	77.2	72.3	53.4
1:06:03 PM	No	65.4	74.9	70.4	54.7
1:07:03 PM	No	63.2	67.8	65.7	58
1:08:03 PM	No	63.3	69.2	65.9	56.9
1:09:03 PM	No	64.6	70.7	66.6	61.9
1:10:03 PM	No	68.3	75.2	71.8	58.4
1:11:03 PM	No	68.6	78.2	71.6	63.1
1:12:03 PM	No	65.1	70.3	68.2	61.6
1:13:03 PM	No	65.6	73.8	71.1	59.2

67.3

Time	Overload	Leq	Lmax	L10	L90
11:16:13 PM	No	60.1	67.6	64.7	50.1
11:17:13 PM	No	60	67.9	65.3	52.5
11:18:13 PM	No	60.9	70.1	64.9	51.2
11:19:13 PM	No	58	67.8	60.5	50.6
11:20:13 PM	No	58.1	67.9	60.1	52.7
11:21:13 PM	No	67.1	79.2	70.6	55.2
11:22:13 PM	No	60.3	68.7	64.5	51.4
11:23:13 PM	Yes	69.7	85.3	72.4	51.4
11:24:13 PM	No	60.7	68	66	51.7
11:25:13 PM	No	62.6	71.4	66.8	53.3
11:26:13 PM	No	58.1	68.8	61.1	52
11:27:13 PM	No	54.3	59.4	56.8	51.5
11:28:13 PM	No	62.2	70.7	67.1	53.6
11:29:13 PM	No	56.9	67.8	59.3	50
11:30:13 PM	No	61.4	70.9	66.9	51

62.7

Location: R5
 Date: 10/18/2016

Time	Overload	Leq	Lmax	L10	L90
12:15:09 PM	No	64.4	70.4	68.7	56.4
12:16:09 PM	No	63.9	70.9	67.6	52.6
12:17:09 PM	No	63.3	72	68.1	49.1
12:18:09 PM	No	64.6	71.2	68.8	53.9
12:19:09 PM	No	61.2	70.5	65.7	49.2
12:20:09 PM	No	63.4	70.3	67.9	52.6
12:21:09 PM	No	63.5	71.4	68	49
12:22:09 PM	No	63.3	70.4	67.1	53.6
12:23:09 PM	No	63.7	70.5	67.2	50.4
12:24:09 PM	No	64.8	73.7	68.9	53.3
12:25:09 PM	No	62.2	71.6	66.6	43.2
12:26:09 PM	No	62	70.3	67.6	47.2
12:27:09 PM	No	69.5	82.7	72.6	41.9
12:28:09 PM	No	65.9	73.5	70	54.3
12:29:09 PM	No	66.6	76.8	71.4	55.1
		64.7			

Time	Overload	Leq	Lmax	L10	L90
11:39:29 PM	No	57.5	67.6	61.7	44
11:40:29 PM	No	54.1	65.2	58.9	43
11:41:29 PM	No	57	68.8	61.4	43.3
11:42:29 PM	No	54.3	65.2	61.6	42.8
11:43:29 PM	No	59.9	69.2	66.1	42
11:44:29 PM	No	52.3	64.4	55.8	41.3
11:45:29 PM	No	52.9	65.1	56.4	41.9
11:46:29 PM	No	57.5	67	63.2	44.5
11:47:29 PM	No	57.5	71	61.8	41.4
11:48:29 PM	No	56.3	66.7	62.1	41.9
11:49:29 PM	No	50.5	61.7	53.5	42.9
11:50:29 PM	No	55.3	68	60.3	42.3
11:51:29 PM	No	57.5	65.9	62.2	43.4
11:52:29 PM	No	57.8	67.6	62.7	42.7
11:53:29 PM	No	43.1	50.4	44	41.9
		56.1			

Location: R6
Date: 10/18/2016

Time	Overload	Leq	Lmax	L10	L90
12:36:56 PM	No	61.4	70.9	65.2	53.8
12:37:56 PM	No	62.8	70.4	65.4	56.5
12:38:56 PM	No	58.3	64.5	62.8	50.1
12:39:56 PM	No	57.5	66.4	62.1	48.3
12:40:56 PM	No	57.8	64.9	60.8	51.6
12:41:56 PM	No	55.3	63.5	60	47.1
12:42:56 PM	No	57.1	69.3	59.9	48.1
12:43:56 PM	No	62.6	69.7	66.4	56.4
12:44:56 PM	No	56.7	63	59.8	48.6
12:45:56 PM	No	57	65	61.1	48.2
12:46:56 PM	No	57.2	64.5	61.9	49.3
12:47:56 PM	No	58.5	68.3	62.2	49.1
12:48:56 PM	No	58.8	66.3	62.9	49.6
12:49:56 PM	No	58.2	64.5	62.5	49.1
12:50:56 PM	No	59.2	64.7	62.7	48
		59.1			

Time	Overload	Leq	Lmax	L10	L90
11:58:25 PM	No	49.2	55	52	45.6
11:59:25 PM	No	54.5	64.9	59.2	45.8
12:00:25 AM	No	54.3	63.6	59.2	46.5
12:01:25 AM	No	56.4	65.8	61.4	46.6
12:02:25 AM	No	54.4	61.2	58.4	46.9
12:03:25 AM	No	53.3	65.1	56.1	45.2
12:04:25 AM	No	55.1	64.5	60.6	44.6
12:05:25 AM	No	52.8	64.2	56.4	45.3
12:06:25 AM	No	53	61.6	56	48
12:07:25 AM	No	58.9	66	64.2	47.2
12:08:25 AM	No	45.7	49.2	47.3	44
12:09:25 AM	No	48.3	54.4	52.5	44
12:10:25 AM	No	51.5	62.2	51.5	46.3
12:11:25 AM	No	49.4	58.7	51.8	45.8
12:12:25 AM	No	52.9	63.4	56.1	45.2
		53.8			

Location: R7
Date: 10/19/2016

Time	Overload	Leq	Lmax	L10	L90
10:39:51 AM	No	60.2	65.6	63.5	51.1
10:40:51 AM	No	59.9	63.9	63.1	52.8
10:41:51 AM	No	59.8	65.3	63.1	54
10:42:51 AM	No	61.9	67.8	66	52.3
10:43:51 AM	No	58.9	66.4	63.3	53.3
10:44:51 AM	No	62.1	67.2	65.2	54
10:45:51 AM	No	61.5	67.1	65.2	54.3
10:46:51 AM	No	65.3	72.2	69.7	53.4
10:47:51 AM	No	59.6	65	63.9	52.3
10:48:51 AM	No	61	65.7	64.6	50.7
10:49:51 AM	No	62.1	67.9	66.6	54
10:50:51 AM	No	56.8	63.8	60.1	51.3
10:51:51 AM	No	62.3	69.3	65.5	52.1
10:52:51 AM	No	60.3	64.1	63.2	54
10:53:51 AM	No	61.8	67.9	65.2	55.4

61.3

Time	Overload	Leq	Lmax	L10	L90
9:59:03 PM	No	58.7	65.2	62.5	51.9
10:00:03 PM	No	55.6	62.6	57.7	50.9
10:01:03 PM	No	56.5	64.4	59.2	51
10:02:03 PM	No	54.2	60.8	57.2	51.2
10:03:03 PM	No	67.7	80.3	70.1	54.4
10:04:03 PM	No	57.9	65.3	61.7	50.8
10:05:03 PM	No	57.8	65.7	62.1	51.3
10:06:03 PM	No	56.3	64.1	60.3	51.1
10:07:03 PM	No	60.5	69	62.9	50.1
10:08:03 PM	No	57.1	63.2	60.9	50.5
10:09:03 PM	No	55.1	62.4	58.4	50.5
10:10:03 PM	No	57	63.2	61.1	51.8
10:11:03 PM	No	57.9	62.1	60.7	52.3
10:12:03 PM	No	64.7	74.4	67.8	54.4
10:13:03 PM	No	58	65.9	62.8	51.3

60.3

Location: R8
Date: 10/19/2016

Time	Overload	Leq	Lmax	L10	L90
11:13:53 AM	No	55.5	68.3	57.9	41.6
11:14:53 AM	No	57.6	69.5	62.7	41.6
11:15:53 AM	No	59.6	69.2	65	41.6
11:16:53 AM	No	62.3	70.1	66.7	49.6
11:17:53 AM	No	57.5	67.4	63.1	41.6
11:18:53 AM	No	58.3	69.3	62.9	41.6
11:19:53 AM	No	42.2	49.3	41.6	41.6
11:20:53 AM	No	61.8	71.7	67.6	41.6
11:21:53 AM	No	56.6	67.1	61.2	41.6
11:22:53 AM	No	60	70.1	66.3	41.6
11:23:53 AM	No	58.6	68.8	64.6	41.6
11:24:53 AM	No	64.9	74.4	69.4	44.9
11:25:53 AM	No	60.6	71.1	65.6	41.6
11:26:53 AM	No	57.1	67.1	62.8	41.6
11:27:53 AM	No	57.9	70.8	60.7	41.6
		59.6			

Time	Overload	Leq	Lmax	L10	L90
10:29:37 PM	No	63.9	72.7	69.3	43
10:30:37 PM	No	62	70.7	68	44.2
10:31:37 PM	No	58.8	71.1	63.9	42.7
10:32:37 PM	No	60.1	70.9	65.1	42.6
10:33:37 PM	No	59.5	69	64.9	42.5
10:34:37 PM	No	61.9	70.8	67.3	42.8
10:35:37 PM	No	58.4	71.3	63.2	41.3
10:36:37 PM	No	52.3	64.5	56.1	40.8
10:37:37 PM	No	41.6	46.1	42.6	40.3
10:38:37 PM	No	54.7	64.8	60.4	40.4
10:39:37 PM	No	58	69.4	63	42.7
10:40:37 PM	No	56.9	66.2	62.2	44
10:41:37 PM	No	60	70.2	65.6	42.2
10:42:37 PM	No	61.2	71.6	67.2	41.5
10:43:37 PM	No	60	70.7	65.3	43
		59.7			

Location: R9
Date: 10/19/2016

Time	Overload	Leq	Lmax	L10	L90
11:33:43 AM	No	41.6	43.7	41.6	41.6
11:34:43 AM	No	42.1	45.3	43.5	41.6
11:35:43 AM	No	41.8	44.8	42.3	41.6
11:36:43 AM	No	41.6	42.1	41.6	41.6
11:37:43 AM	No	41.9	45.7	42.3	41.6
11:38:43 AM	No	41.6	43.7	41.6	41.6
11:39:43 AM	No	41.7	44.3	41.6	41.6
11:40:43 AM	No	41.6	42.7	41.8	41.6
11:41:43 AM	No	42	44.5	43.1	41.6
11:42:43 AM	No	42.7	46.7	44.9	41.6
11:43:43 AM	No	44.4	50.7	47.6	41.6
11:44:43 AM	No	41.8	44.1	42.5	41.6
11:45:43 AM	No	41.7	44.7	42.1	41.6
11:46:43 AM	No	41.6	43.6	41.6	41.6
11:47:43 AM	No	41.9	43.3	42.7	41.6
		42.1			

Time	Overload	Leq	Lmax	L10	L90
10:49:29 PM	No	41.7	45.5	44.5	39.7
10:50:29 PM	No	41.1	46.2	42.3	39.7
10:51:29 PM	No	40.8	44.2	42.2	39.7
10:52:29 PM	No	39.5	40.9	40.5	38.4
10:53:29 PM	No	40.6	42.7	41.5	39.7
10:54:29 PM	No	39.9	41.7	40.8	39.2
10:55:29 PM	No	41.7	45.6	43.5	39.8
10:56:29 PM	No	41.7	43.3	42.6	40.9
10:57:29 PM	No	41.7	44	42.7	40.5
10:58:29 PM	No	42	45.1	43.2	40.9
10:59:29 PM	No	41.9	44.3	43.2	41.1
11:00:29 PM	No	41.8	43.6	42.8	41.2
11:01:29 PM	No	42.4	44.6	43.7	40.5
11:02:29 PM	No	41.1	48.5	42.1	39.7
11:03:29 PM	No	41.3	45.7	42.7	39.9
		41.3			

Location: R10
 Date: 10/19/2016

Time	Overload	Leq	Lmax	L10	L90
11:56:01 AM	No	46.9	56.7	49.7	41.8
11:57:01 AM	No	43.3	48.6	47.2	41.6
11:58:01 AM	No	41.9	45.1	42.8	41.6
11:59:01 AM	No	43.3	48.2	44.2	41.6
12:00:01 PM	No	43.4	51.4	45.4	41.6
12:01:01 PM	No	41.6	41.6	41.6	41.6
12:02:01 PM	No	41.6	41.6	41.6	41.6
12:03:01 PM	No	42.3	44.9	43.9	41.6
12:04:01 PM	No	43.4	51.5	44.7	41.6
12:05:01 PM	No	50.7	57.2	55.9	41.6
12:06:01 PM	No	48.4	55.3	53.6	41.6
12:07:01 PM	No	43.3	47.8	47.2	41.6
12:08:01 PM	No	41.6	41.6	41.6	41.6
12:09:01 PM	No	41.6	41.6	41.6	41.6
12:10:01 PM	No	41.6	41.6	41.6	41.6
		44.8			

Time	Overload	Leq	Lmax	L10	L90
11:10:08 PM	No	47.9	50.3	50	44.7
11:11:08 PM	No	47.2	50.4	50	44.5
11:12:08 PM	No	48.8	54.5	52.3	44.1
11:13:08 PM	No	47.5	52.7	50.6	43.5
11:14:08 PM	No	44.2	46.1	44.9	43.6
11:15:08 PM	No	44.2	49.3	48	41.9
11:16:08 PM	No	47.6	50.6	50.3	42.9
11:17:08 PM	No	48.2	50.7	50.3	45.2
11:18:08 PM	No	47.7	50.8	50.6	44.8
11:19:08 PM	No	46.5	47.4	47.1	45.9
11:20:08 PM	No	45.8	47.2	46.9	44.7
11:21:08 PM	No	47.3	50.2	49.7	45.5
11:22:08 PM	No	46.2	50.5	50.2	43.6
11:23:08 PM	No	45.3	47.1	46.7	43.3
11:24:08 PM	No	45.9	47.2	46.9	44.4
		46.9			

Location: R4
 Date: 8/17/2017

Time	Overload	Leq	Lmax	L10	L90
2:02:51 AM	No	51.7	61.4	56	47.6
2:03:51 AM	No	50.9	59.8	53.9	46.8
2:04:51 AM	No	53.1	61.8	58.5	45.9
2:05:51 AM	No	54.4	62.4	58.5	47.7
2:06:51 AM	No	49.5	57.9	51.4	47.3
2:07:51 AM	No	50.9	59.3	54.8	45.5
2:08:51 AM	No	46.5	49.4	47.2	45.3
2:09:51 AM	No	52.6	62.1	56.1	47.3
2:10:51 AM	No	54.8	60.7	59.1	48.6
2:11:51 AM	No	50.1	57.8	52.5	48.1
2:12:51 AM	No	52.9	63.6	56.3	47.7
2:13:51 AM	No	53.9	62.3	57.2	48.3
2:14:51 AM	No	55.6	62.4	59.8	48.1
2:15:51 AM	No	50.3	59.8	53.5	46.9
2:16:51 AM	No	51.4	60.1	55.8	47.2
		52.5			
Time	Overload	Leq	Lmax	L10	L90

Location: R5
Date: 8/17/2017

Time	Overload	Leq	Lmax	L10	L90
2:23:52 AM	No	42.2	48	43.7	41.2
2:24:52 AM	No	49.5	61.3	53.3	41.3
2:25:52 AM	No	41.9	45.7	43.3	41.2
2:26:52 AM	No	40.3	46.3	41.7	38.9
2:27:52 AM	No	41.2	47.5	44.6	38.8
2:28:52 AM	No	49.7	62.4	51.9	38.5
2:29:52 AM	No	38.8	39.5	39.1	38.6
2:30:52 AM	No	38.7	39.7	39.2	38.4
2:31:52 AM	No	40.9	45.4	41.6	40.1
2:32:52 AM	No	42	47.3	44.3	40.1
2:33:52 AM	No	51.5	62.2	57.4	40.3
2:34:52 AM	No	50.2	62.7	52.3	40.5
2:35:52 AM	No	52.2	65.5	53.7	40.1
2:36:52 AM	No	42.9	51.7	45.1	40.8
2:37:52 AM	No	53.3	63.9	58.7	41.1

47.9

Time	Overload	Leq	Lmax	L10	L90
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0.0

Location: R6
 Date: 8/17/2017

Time	Overload	Leq	Lmax	L10	L90
2:43:17 AM	No	54.1	63.9	57.3	49.2
2:44:17 AM	No	53.8	61.7	59.3	49
2:45:17 AM	No	53.2	61.8	59.3	41.9
2:46:17 AM	No	52.9	58.4	56.5	45.3
2:47:17 AM	No	46.8	53.7	50	41.3
2:48:17 AM	No	48.9	59.8	51.9	41.5
2:49:17 AM	No	48.2	56.1	53.1	40.9
2:50:17 AM	No	43.1	47.7	45.7	40.8
2:51:17 AM	No	51.5	62.4	55.9	41.8
2:52:17 AM	No	47.7	56.1	52.6	40.7
2:53:17 AM	No	50.6	61.7	54.6	40.2
2:54:17 AM	No	45.6	54.2	50.9	40.6
2:55:17 AM	No	47.1	54.7	51.7	40.9
2:56:17 AM	No	44.2	50.9	47.2	40.7
2:57:17 AM	No	42.5	45.7	44.3	40.9

50.2

Time	Overload	Leq	Lmax	L10	L90
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0.0

Construction Noise Calculations

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	1490	10
Excavator	1	81	40%	1490	10
Rubber Tired Loader	1	79	40%	1490	10
Tractor/Loader/Backhoe	1	79	40%	1490	10

Receptor: 7

Results: 1-hour Leq: 45.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Grading/Excavation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	1490	10
Crane	1	81	16%	1490	10
Excavator	1	81	40%	1490	10
Rubber Tired Loader	1	79	40%	1490	10
Welder	1	74	40%	1490	10

Receptor: 7

Results: 1-hour Leq: 42.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Foundation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	1490	10
Concrete Saw	1	90	20%	1490	10
Crane	2	81	16%	1490	10
Forklift	2	75	20%	1490	10
Pump	1	81	20%	1490	10
Plate Compactor	2	83	20%	1490	10
Welder	1	74	40%	1490	10

Receptor: 7

Results:
1-hour Leq: 46.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	2	78	40%	1490	10
Aerial Lift	2	75	20%	1490	10
Cement and Mortar Mixer	2	80	50%	1490	10
Concrete Saw	1	90	20%	1490	10
Crane	2	81	16%	1490	10
Forklift	2	75	20%	1490	10
Pump	1	81	20%	1490	10
Plate Compactor	1	83	20%	1490	10
Welder	2	74	40%	1490	10

Receptor: 7

Results: 1-hour Leq: 47.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Paving/Landscape**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	1490	10
Paving Equipment	1	81	20%	1490	10
Roller	1	80	20%	1490	10
Skid Steer Loader	1	79	40%	1490	10
Tractor/Loader/Backhoe	1	79	40%	1490	10

Receptor: 7

Results: 1-hour Leq: 42.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	1195	5
Excavator	1	81	40%	1195	5
Rubber Tired Loader	1	79	40%	1195	5
Tractor/Loader/Backhoe	1	79	40%	1195	5

Receptor: 6

Results: 1-hour Leq: 52.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Grading/Excavation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	1195	5
Crane	1	81	16%	1195	5
Excavator	1	81	40%	1195	5
Rubber Tired Loader	1	79	40%	1195	5
Welder	1	74	40%	1195	5

Receptor: 6

Results: 1-hour Leq: 49.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Foundation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	1195	5
Concrete Saw	1	90	20%	1195	5
Crane	2	81	16%	1195	5
Forklift	2	75	20%	1195	5
Pump	1	81	20%	1195	5
Plate Compactor	2	83	20%	1195	5
Welder	1	74	40%	1195	5

Receptor: 6

Results: 1-hour Leq: 53.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	2	78	40%	1195	5
Aerial Lift	2	75	20%	1195	5
Cement and Mortar Mixer	2	80	50%	1195	5
Concrete Saw	1	90	20%	1195	5
Crane	2	81	16%	1195	5
Forklift	2	75	20%	1195	5
Pump	1	81	20%	1195	5
Plate Compactor	1	83	20%	1195	5
Welder	2	74	40%	1195	5

Receptor: 6

Results: 1-hour Leq: 54.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Paving/Landscape**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	1195	5
Paving Equipment	1	81	20%	1195	5
Roller	1	80	20%	1195	5
Skid Steer Loader	1	79	40%	1195	5
Tractor/Loader/Backhoe	1	79	40%	1195	5

Receptor: 6

Results: 1-hour Leq: 49.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	820	5
Excavator	1	81	40%	820	5
Rubber Tired Loader	1	79	40%	820	5
Tractor/Loader/Backhoe	1	79	40%	820	5

Receptor: 5

Results: 1-hour Leq: 55.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Grading/Excavation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	820	5
Crane	1	81	16%	820	5
Excavator	1	81	40%	820	5
Rubber Tired Loader	1	79	40%	820	5
Welder	1	74	40%	820	5

Receptor: 5

Results: 1-hour Leq: 52.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Foundation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	820	5
Concrete Saw	1	90	20%	820	5
Crane	2	81	16%	820	5
Forklift	2	75	20%	820	5
Pump	1	81	20%	820	5
Plate Compactor	2	83	20%	820	5
Welder	1	74	40%	820	5

Receptor: 5

Results: 1-hour Leq: 56.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	2	78	40%	820	5
Aerial Lift	2	75	20%	820	5
Cement and Mortar Mixer	2	80	50%	820	5
Concrete Saw	1	90	20%	820	5
Crane	2	81	16%	820	5
Forklift	2	75	20%	820	5
Pump	1	81	20%	820	5
Plate Compactor	1	83	20%	820	5
Welder	2	74	40%	820	5

Receptor: 5

Results: 1-hour Leq: 57.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Paving/Landscape**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	820	5
Paving Equipment	1	81	20%	820	5
Roller	1	80	20%	820	5
Skid Steer Loader	1	79	40%	820	5
Tractor/Loader/Backhoe	1	79	40%	820	5

Receptor: 5

Results: 1-hour Leq: 52.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	1135	5
Excavator	1	81	40%	1135	5
Rubber Tired Loader	1	79	40%	1135	5
Tractor/Loader/Backhoe	1	79	40%	1135	5

Receptor: 4

Results: 1-hour Leq: 52.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Grading/Excavation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	1135	5
Crane	1	81	16%	1135	5
Excavator	1	81	40%	1135	5
Rubber Tired Loader	1	79	40%	1135	5
Welder	1	74	40%	1135	5

Receptor: 4

Results: 1-hour Leq: 50.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Foundation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	1135	5
Concrete Saw	1	90	20%	1135	5
Crane	2	81	16%	1135	5
Forklift	2	75	20%	1135	5
Pump	1	81	20%	1135	5
Plate Compactor	2	83	20%	1135	5
Welder	1	74	40%	1135	5

Receptor: 4

Results: 1-hour Leq: 54.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	2	78	40%	1135	5
Aerial Lift	2	75	20%	1135	5
Cement and Mortar Mixer	2	80	50%	1135	5
Concrete Saw	1	90	20%	1135	5
Crane	2	81	16%	1135	5
Forklift	2	75	20%	1135	5
Pump	1	81	20%	1135	5
Plate Compactor	1	83	20%	1135	5
Welder	2	74	40%	1135	5

Receptor: 4

Results: 1-hour Leq: 54.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Paving/Landscape**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	1135	5
Paving Equipment	1	81	20%	1135	5
Roller	1	80	20%	1135	5
Skid Steer Loader	1	79	40%	1135	5
Tractor/Loader/Backhoe	1	79	40%	1135	5

Receptor: 4

Results: 1-hour Leq: 49.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	100	0
Excavator	1	81	40%	100	0
Rubber Tired Loader	1	79	40%	100	0
Tractor/Loader/Backhoe	1	79	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 78.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Grading/Excavation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	100	0
Crane	1	81	16%	100	0
Excavator	1	81	40%	100	0
Rubber Tired Loader	1	79	40%	100	0
Welder	1	74	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 76.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Foundation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	100	0
Concrete Saw	1	90	20%	100	0
Crane	2	81	16%	100	0
Forklift	2	75	20%	100	0
Pump	1	81	20%	100	0
Plate Compactor	2	83	20%	100	0
Welder	1	74	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 80.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	2	78	40%	100	0
Aerial Lift	2	75	20%	100	0
Cement and Mortar Mixer	2	80	50%	100	0
Concrete Saw	1	90	20%	100	0
Crane	2	81	16%	100	0
Forklift	2	75	20%	100	0
Pump	1	81	20%	100	0
Plate Compactor	1	83	20%	100	0
Welder	2	74	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 81.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 2 - 888 South Raymond Building
Paving/Landscape**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	100	0
Paving Equipment	1	81	20%	100	0
Roller	1	80	20%	100	0
Skid Steer Loader	1	79	40%	100	0
Tractor/Loader/Backhoe	1	79	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 76.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	2355	10
Excavator	1	81	40%	2355	10
Rubber Tired Loader	1	79	40%	2355	10
Tractor/Loader/Backhoe	1	79	40%	2355	10

Receptor: 7

Results:
1-hour Leq: 41.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Grading/Excavation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	2355	10
Crane	1	81	16%	2355	10
Excavator	1	81	40%	2355	10
Rubber Tired Loader	1	79	40%	2355	10
Welder	1	74	40%	2355	10

Receptor: 7

Results:
1-hour Leq: 38.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Foundation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	2355	10
Concrete Saw	1	90	20%	2355	10
Crane	2	81	16%	2355	10
Forklift	2	75	20%	2355	10
Pump	1	81	20%	2355	10
Plate Compactor	2	83	20%	2355	10
Welder	1	74	40%	2355	10

Receptor: 7

Results: 1-hour Leq: 42.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	2	78	40%	2355	10
Aerial Lift	2	75	20%	2355	10
Cement and Mortar Mixer	2	80	50%	2355	10
Concrete Saw	1	90	20%	2355	10
Crane	2	81	16%	2355	10
Forklift	2	75	20%	2355	10
Pump	1	81	20%	2355	10
Plate Compactor	1	83	20%	2355	10
Welder	2	74	40%	2355	10

Receptor: 7

Results: 1-hour Leq: 43.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Paving/Landscape**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	2355	10
Paving Equipment	1	81	20%	2355	10
Roller	1	80	20%	2355	10
Skid Steer Loader	1	79	40%	2355	10
Tractor/Loader/Backhoe	1	79	40%	2355	10

Receptor: 7

Results:
1-hour Leq: 38.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	2300	10
Excavator	1	81	40%	2300	10
Rubber Tired Loader	1	79	40%	2300	10
Tractor/Loader/Backhoe	1	79	40%	2300	10

Receptor: 7

Results:
1-hour Leq: 41.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Grading/Excavation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	2300	10
Crane	1	81	16%	2300	10
Excavator	1	81	40%	2300	10
Rubber Tired Loader	1	79	40%	2300	10
Welder	1	74	40%	2300	10

Receptor: 7

Results: 1-hour Leq: 38.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Foundation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	2300	10
Concrete Saw	1	90	20%	2300	10
Crane	2	81	16%	2300	10
Forklift	2	75	20%	2300	10
Pump	1	81	20%	2300	10
Plate Compactor	2	83	20%	2300	10
Welder	1	74	40%	2300	10

Receptor: 7

Results: 1-hour Leq: 43.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	2	78	40%	2300	10
Aerial Lift	2	75	20%	2300	10
Cement and Mortar Mixer	2	80	50%	2300	10
Concrete Saw	1	90	20%	2300	10
Crane	2	81	16%	2300	10
Forklift	2	75	20%	2300	10
Pump	1	81	20%	2300	10
Plate Compactor	1	83	20%	2300	10
Welder	2	74	40%	2300	10

Receptor: 7

Results: 1-hour Leq: 43.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Paving/Landscape**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	2300	10
Aerial Lift	1	75	20%	2300	10
Cement and Mortar Mixer	1	80	50%	2300	10
Crane	1	81	16%	2300	10
Forklift	2	75	20%	2300	10
Paving Equipment	1	81	20%	2300	10
Roller	1	80	20%	2300	10
Skid Steer Loader	1	79	40%	2300	10
Rubber Tired Loader	1	79	40%	2300	10

Receptor: 7

Results: 1-hour Leq: 40.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1111 South Arroyo Building
Building Improvements**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	2450	10
Aerial Lift	1	75	20%	2450	10
Cement and Mortar Mixer		80	50%		
Concrete Saw	1	90	20%	2450	10
Crane		81	16%		
Forklift		75	20%		
Paving Equipment		81	20%		
Roller		80	20%		
Skid Steer Loader	1	79	40%	2450	10
Welder	1	74	40%	2450	10

Receptor: 7

Results: 1-hour Leq: 40.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 950 South Raymond Building
Building Improvements**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	1875	10
Aerial Lift	1	75	20%	1875	10
Cement and Mortar Mixer		80	50%		
Concrete Saw	1	90	20%	1875	10
Crane		81	16%		
Forklift		75	20%		
Paving Equipment		81	20%		
Roller		80	20%		
Skid Steer Loader	1	79	40%	1875	10
Welder	1	74	40%	1875	10

Receptor: 7

Results: 1-hour Leq: 42.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	490	5
Excavator	1	81	40%	490	5
Rubber Tired Loader	1	79	40%	490	5
Tractor/Loader/Backhoe	1	79	40%	490	5

Receptor: 6

Results: 1-hour Leq: 60.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Grading/Excavation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	490	5
Crane	1	81	16%	490	5
Excavator	1	81	40%	490	5
Rubber Tired Loader	1	79	40%	490	5
Welder	1	74	40%	490	5

Receptor: 6

Results: 1-hour Leq: 57.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Foundation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	490	5
Concrete Saw	1	90	20%	490	5
Crane	2	81	16%	490	5
Forklift	2	75	20%	490	5
Pump	1	81	20%	490	5
Plate Compactor	2	83	20%	490	5
Welder	1	74	40%	490	5

Receptor: 6

Results: 1-hour Leq: 61.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	2	78	40%	490	5
Aerial Lift	2	75	20%	490	5
Cement and Mortar Mixer	2	80	50%	490	5
Concrete Saw	1	90	20%	490	5
Crane	2	81	16%	490	5
Forklift	2	75	20%	490	5
Pump	1	81	20%	490	5
Plate Compactor	1	83	20%	490	5
Welder	2	74	40%	490	5

Receptor: 6

Results: 1-hour Leq: 62.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Paving/Landscape**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	490	5
Paving Equipment	1	81	20%	490	5
Roller	1	80	20%	490	5
Skid Steer Loader	1	79	40%	490	5
Tractor/Loader/Backhoe	1	79	40%	490	5

Receptor: 6

Results: 1-hour Leq: 57.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	620	5
Excavator	1	81	40%	620	5
Rubber Tired Loader	1	79	40%	620	5
Tractor/Loader/Backhoe	1	79	40%	620	5

Receptor: 6

Results: 1-hour Leq: 58.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Grading/Excavation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	620	5
Crane	1	81	16%	620	5
Excavator	1	81	40%	620	5
Rubber Tired Loader	1	79	40%	620	5
Welder	1	74	40%	620	5

Receptor: 6

Results: 1-hour Leq: 55.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Foundation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	620	5
Concrete Saw	1	90	20%	620	5
Crane	2	81	16%	620	5
Forklift	2	75	20%	620	5
Pump	1	81	20%	620	5
Plate Compactor	2	83	20%	620	5
Welder	1	74	40%	620	5

Receptor: 6

Results: 1-hour Leq: 59.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	2	78	40%	620	5
Aerial Lift	2	75	20%	620	5
Cement and Mortar Mixer	2	80	50%	620	5
Concrete Saw	1	90	20%	620	5
Crane	2	81	16%	620	5
Forklift	2	75	20%	620	5
Pump	1	81	20%	620	5
Plate Compactor	1	83	20%	620	5
Welder	2	74	40%	620	5

Receptor: 6

Results: 1-hour Leq: 60.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Paving/Landscape**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	620	5
Aerial Lift	1	75	20%	620	5
Cement and Mortar Mixer	1	80	50%	620	5
Crane	1	81	16%	620	5
Forklift	2	75	20%	620	5
Paving Equipment	1	81	20%	620	5
Roller	1	80	20%	620	5
Skid Steer Loader	1	79	40%	620	5
Rubber Tired Loader	1	79	40%	620	5

Receptor: 6

Results: 1-hour Leq: 56.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1111 South Arroyo Building
Building Improvements**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	400	5
Aerial Lift	1	75	20%	400	5
Cement and Mortar Mixer		80	50%		
Concrete Saw	1	90	20%	400	5
Crane		81	16%		
Forklift		75	20%		
Paving Equipment		81	20%		
Roller		80	20%		
Skid Steer Loader	1	79	40%	400	5
Welder	1	74	40%	400	5

Receptor: 6

Results: 1-hour Leq: 61.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 950 South Raymond Building
Building Improvements**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	870	5
Aerial Lift	1	75	20%	870	5
Cement and Mortar Mixer		80	50%		
Concrete Saw	1	90	20%	870	5
Crane		81	16%		
Forklift		75	20%		
Paving Equipment		81	20%		
Roller		80	20%		
Skid Steer Loader	1	79	40%	870	5
Welder	1	74	40%	870	5

Receptor: 6

Results:
1-hour Leq: 54.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	665	5
Excavator	1	81	40%	665	5
Rubber Tired Loader	1	79	40%	665	5
Tractor/Loader/Backhoe	1	79	40%	665	5

Receptor: 5

Results: 1-hour Leq: 57.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Grading/Excavation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	665	5
Crane	1	81	16%	665	5
Excavator	1	81	40%	665	5
Rubber Tired Loader	1	79	40%	665	5
Welder	1	74	40%	665	5

Receptor: 5

Results: 1-hour Leq: 54.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Foundation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	665	5
Concrete Saw	1	90	20%	665	5
Crane	2	81	16%	665	5
Forklift	2	75	20%	665	5
Pump	1	81	20%	665	5
Plate Compactor	2	83	20%	665	5
Welder	1	74	40%	665	5

Receptor: 5

Results: 1-hour Leq: 58.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	2	78	40%	665	5
Aerial Lift	2	75	20%	665	5
Cement and Mortar Mixer	2	80	50%	665	5
Concrete Saw	1	90	20%	665	5
Crane	2	81	16%	665	5
Forklift	2	75	20%	665	5
Pump	1	81	20%	665	5
Plate Compactor	1	83	20%	665	5
Welder	2	74	40%	665	5

Receptor: 5

Results: 1-hour Leq: 59.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Paving/Landscape**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	665	5
Paving Equipment	1	81	20%	665	5
Roller	1	80	20%	665	5
Skid Steer Loader	1	79	40%	665	5
Tractor/Loader/Backhoe	1	79	40%	665	5

Receptor: 5

Results: 1-hour Leq: 54.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	455	5
Excavator	1	81	40%	455	5
Rubber Tired Loader	1	79	40%	455	5
Tractor/Loader/Backhoe	1	79	40%	455	5

Receptor: 5

Results: 1-hour Leq: 60.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Grading/Excavation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	455	5
Crane	1	81	16%	455	5
Excavator	1	81	40%	455	5
Rubber Tired Loader	1	79	40%	455	5
Welder	1	74	40%	455	5

Receptor: 5

Results: 1-hour Leq: 57.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Foundation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	455	5
Concrete Saw	1	90	20%	455	5
Crane	2	81	16%	455	5
Forklift	2	75	20%	455	5
Pump	1	81	20%	455	5
Plate Compactor	2	83	20%	455	5
Welder	1	74	40%	455	5

Receptor: 5

Results: 1-hour Leq: 62.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	2	78	40%	455	5
Aerial Lift	2	75	20%	455	5
Cement and Mortar Mixer	2	80	50%	455	5
Concrete Saw	1	90	20%	455	5
Crane	2	81	16%	455	5
Forklift	2	75	20%	455	5
Pump	1	81	20%	455	5
Plate Compactor	1	83	20%	455	5
Welder	2	74	40%	455	5

Receptor: 5

Results: 1-hour Leq: 62.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Paving/Landscape**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	455	5
Aerial Lift	1	75	20%	455	5
Cement and Mortar Mixer	1	80	50%	455	5
Crane	1	81	16%	455	5
Forklift	2	75	20%	455	5
Paving Equipment	1	81	20%	455	5
Roller	1	80	20%	455	5
Skid Steer Loader	1	79	40%	455	5
Rubber Tired Loader	1	79	40%	455	5

Receptor: 5

Results: 1-hour Leq: 59.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1111 South Arroyo Building
Building Improvements**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	470	5
Aerial Lift	1	75	20%	470	5
Cement and Mortar Mixer		80	50%		
Concrete Saw	1	90	20%	470	5
Crane		81	16%		
Forklift		75	20%		
Paving Equipment		81	20%		
Roller		80	20%		
Skid Steer Loader	1	79	40%	470	5
Welder	1	74	40%	470	5

Receptor: 5

Results: 1-hour Leq: 59.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 950 South Raymond Building
Building Improvements**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	655	5
Aerial Lift	1	75	20%	655	5
Cement and Mortar Mixer		80	50%		
Concrete Saw	1	90	20%	655	5
Crane		81	16%		
Forklift		75	20%		
Paving Equipment		81	20%		
Roller		80	20%		
Skid Steer Loader	1	79	40%	655	5
Welder	1	74	40%	655	5

Receptor: 5

Results: 1-hour Leq: 57.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	695	5
Excavator	1	81	40%	695	5
Rubber Tired Loader	1	79	40%	695	5
Tractor/Loader/Backhoe	1	79	40%	695	5

Receptor: 4

Results: 1-hour Leq: 57.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Grading/Excavation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	695	5
Crane	1	81	16%	695	5
Excavator	1	81	40%	695	5
Rubber Tired Loader	1	79	40%	695	5
Welder	1	74	40%	695	5

Receptor: 4

Results: 1-hour Leq: 54.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Foundation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	695	5
Concrete Saw	1	90	20%	695	5
Crane	2	81	16%	695	5
Forklift	2	75	20%	695	5
Pump	1	81	20%	695	5
Plate Compactor	2	83	20%	695	5
Welder	1	74	40%	695	5

Receptor: 4

Results: 1-hour Leq: 58.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	2	78	40%	695	5
Aerial Lift	2	75	20%	695	5
Cement and Mortar Mixer	2	80	50%	695	5
Concrete Saw	1	90	20%	695	5
Crane	2	81	16%	695	5
Forklift	2	75	20%	695	5
Pump	1	81	20%	695	5
Plate Compactor	1	83	20%	695	5
Welder	2	74	40%	695	5

Receptor: 4

Results: 1-hour Leq: 59.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Paving/Landscape**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	695	5
Paving Equipment	1	81	20%	695	5
Roller	1	80	20%	695	5
Skid Steer Loader	1	79	40%	695	5
Tractor/Loader/Backhoe	1	79	40%	695	5

Receptor: 4

Results: 1-hour Leq: 54.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	940	5
Excavator	1	81	40%	940	5
Rubber Tired Loader	1	79	40%	940	5
Tractor/Loader/Backhoe	1	79	40%	940	5

Receptor: 4

Results: 1-hour Leq: 54.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Grading/Excavation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	940	5
Crane	1	81	16%	940	5
Excavator	1	81	40%	940	5
Rubber Tired Loader	1	79	40%	940	5
Welder	1	74	40%	940	5

Receptor: 4

Results: 1-hour Leq: 51.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Foundation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	940	5
Concrete Saw	1	90	20%	940	5
Crane	2	81	16%	940	5
Forklift	2	75	20%	940	5
Pump	1	81	20%	940	5
Plate Compactor	2	83	20%	940	5
Welder	1	74	40%	940	5

Receptor: 4

Results: 1-hour Leq: 55.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	2	78	40%	940	5
Aerial Lift	2	75	20%	940	5
Cement and Mortar Mixer	2	80	50%	940	5
Concrete Saw	1	90	20%	940	5
Crane	2	81	16%	940	5
Forklift	2	75	20%	940	5
Pump	1	81	20%	940	5
Plate Compactor	1	83	20%	940	5
Welder	2	74	40%	940	5

Receptor: 4

Results: 1-hour Leq: 56.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Paving/Landscape**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	940	5
Aerial Lift	1	75	20%	940	5
Cement and Mortar Mixer	1	80	50%	940	5
Crane	1	81	16%	940	5
Forklift	2	75	20%	940	5
Paving Equipment	1	81	20%	940	5
Roller	1	80	20%	940	5
Skid Steer Loader	1	79	40%	940	5
Rubber Tired Loader	1	79	40%	940	5

Receptor: 4

Results: 1-hour Leq: 53.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1111 South Arroyo Building
Building Improvements**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	930	5
Aerial Lift	1	75	20%	930	5
Cement and Mortar Mixer		80	50%		
Concrete Saw	1	90	20%	930	5
Crane		81	16%		
Forklift		75	20%		
Paving Equipment		81	20%		
Roller		80	20%		
Skid Steer Loader	1	79	40%	930	5
Welder	1	74	40%	930	5

Receptor: 4

Results: 1-hour Leq: 54.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 950 South Raymond Building
Building Improvements**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	925	5
Aerial Lift	1	75	20%	925	5
Cement and Mortar Mixer		80	50%		
Concrete Saw	1	90	20%	925	5
Crane		81	16%		
Forklift		75	20%		
Paving Equipment		81	20%		
Roller		80	20%		
Skid Steer Loader	1	79	40%	925	5
Welder	1	74	40%	925	5

Receptor: 4

Results: 1-hour Leq: 54.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	100	0
Excavator	1	81	40%	100	0
Rubber Tired Loader	1	79	40%	100	0
Tractor/Loader/Backhoe	1	79	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 78.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Grading/Excavation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	100	0
Crane	1	81	16%	100	0
Excavator	1	81	40%	100	0
Rubber Tired Loader	1	79	40%	100	0
Welder	1	74	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 76.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Foundation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	100	0
Concrete Saw	1	90	20%	100	0
Crane	2	81	16%	100	0
Forklift	2	75	20%	100	0
Pump	1	81	20%	100	0
Plate Compactor	2	83	20%	100	0
Welder	1	74	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 80.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	2	78	40%	100	0
Aerial Lift	2	75	20%	100	0
Cement and Mortar Mixer	2	80	50%	100	0
Concrete Saw	1	90	20%	100	0
Crane	2	81	16%	100	0
Forklift	2	75	20%	100	0
Pump	1	81	20%	100	0
Plate Compactor	1	83	20%	100	0
Welder	2	74	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 81.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 988 South Raymond Building
Paving/Landscape**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	100	0
Paving Equipment	1	81	20%	100	0
Roller	1	80	20%	100	0
Skid Steer Loader	1	79	40%	100	0
Tractor/Loader/Backhoe	1	79	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 76.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saw	1	90	20%	100	0
Excavator	1	81	40%	100	0
Rubber Tired Loader	1	79	40%	100	0
Tractor/Loader/Backhoe	1	79	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 78.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Grading/Excavation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Bore/Drill Rig	1	84	20%	100	0
Crane	1	81	16%	100	0
Excavator	1	81	40%	100	0
Rubber Tired Loader	1	79	40%	100	0
Welder	1	74	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 76.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Foundation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	100	0
Concrete Saw	1	90	20%	100	0
Crane	2	81	16%	100	0
Forklift	2	75	20%	100	0
Pump	1	81	20%	100	0
Plate Compactor	2	83	20%	100	0
Welder	1	74	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 80.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	2	78	40%	100	0
Aerial Lift	2	75	20%	100	0
Cement and Mortar Mixer	2	80	50%	100	0
Concrete Saw	1	90	20%	100	0
Crane	2	81	16%	100	0
Forklift	2	75	20%	100	0
Pump	1	81	20%	100	0
Plate Compactor	1	83	20%	100	0
Welder	2	74	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 81.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1101 South Arroyo Building
Paving/Landscape**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	100	0
Aerial Lift	1	75	20%	100	0
Cement and Mortar Mixer	1	80	50%	100	0
Crane	1	81	16%	100	0
Forklift	2	75	20%	100	0
Paving Equipment	1	81	20%	100	0
Roller	1	80	20%	100	0
Skid Steer Loader	1	79	40%	100	0
Rubber Tired Loader	1	79	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 77.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 1111 South Arroyo Building
Building Improvements**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	100	0
Aerial Lift	1	75	20%	100	0
Cement and Mortar Mixer		80	50%		
Concrete Saw	1	90	20%	100	0
Crane		81	16%		
Forklift		75	20%		
Paving Equipment		81	20%		
Roller		80	20%		
Skid Steer Loader	1	79	40%	100	0
Welder	1	74	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 78.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: South Campus Phase 1 - 950 South Raymond Building
Building Improvements**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	100	0
Aerial Lift	1	75	20%	100	0
Cement and Mortar Mixer		80	50%		
Concrete Saw	1	90	20%	100	0
Crane		81	16%		
Forklift		75	20%		
Paving Equipment		81	20%		
Roller		80	20%		
Skid Steer Loader	1	79	40%	100	0
Welder	1	74	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 78.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 2 - South Building
Renovation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	1100	10
Aerial Lift	1	75	20%	1100	10
Concrete Saw	1	90	20%	1100	10
Crane		81	16%		
Forklift	1	75	20%	1100	10
Skid Steer Loader	1	79	40%	1100	10
Welder	1	74	40%	1100	10

Receptor: **10**

Results:
1-hour Leq: **47.6**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 2 - South Building
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	1100	10
Aerial Lift	1	75	20%	1100	10
Cement and Mortar Mixer	1	80	50%	1100	10
Concrete Saw	1	90	20%	1100	10
Crane	1	81	16%	1100	10
Forklift	2	75	20%	1100	10
Paving Equipment		81	20%		
Roller		80	20%		
Skid Steer Loader		79	40%		
Welder	1	74	40%	1100	10

Receptor: 10

Results: 1-hour Leq: 48.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 2 - South Building
Renovation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	1805	10
Aerial Lift	1	75	20%	1805	10
Concrete Saw	1	90	20%	1805	10
Crane		81	16%		
Forklift	1	75	20%	1805	10
Skid Steer Loader	1	79	40%	1805	10
Welder	1	74	40%	1805	10

Receptor: 9

Results: 1-hour Leq: 43.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 2 - South Building
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	1805	10
Aerial Lift	1	75	20%	1805	10
Cement and Mortar Mixer	1	80	50%	1805	10
Concrete Saw	1	90	20%	1805	10
Crane	1	81	16%	1805	10
Forklift	2	75	20%	1805	10
Paving Equipment		81	20%		
Roller		80	20%		
Skid Steer Loader		79	40%		
Welder	1	74	40%	1805	10

Receptor: 9

Results: 1-hour Leq: 44.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 2 - South Building
Renovation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	2015	10
Aerial Lift	1	75	20%	2015	10
Concrete Saw	1	90	20%	2015	10
Crane		81	16%		
Forklift	1	75	20%	2015	10
Skid Steer Loader	1	79	40%	2015	10
Welder	1	74	40%	2015	10

Receptor: 8

Results: 1-hour Leq: 42.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 2 - South Building
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	2015	10
Aerial Lift	1	75	20%	2015	10
Cement and Mortar Mixer	1	80	50%	2015	10
Concrete Saw	1	90	20%	2015	10
Crane	1	81	16%	2015	10
Forklift	2	75	20%	2015	10
Paving Equipment		81	20%		
Roller		80	20%		
Skid Steer Loader		79	40%		
Welder	1	74	40%	2015	10

Receptor: 8

Results: 1-hour Leq: 43.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 2 - South Building
Renovation**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	100	0
Aerial Lift	1	75	20%	100	0
Concrete Saw	1	90	20%	100	0
Crane		81	16%		
Forklift	1	75	20%	100	0
Skid Steer Loader	1	79	40%	100	0
Welder	1	74	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 78.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 2 - South Building
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	100	0
Aerial Lift	1	75	20%	100	0
Cement and Mortar Mixer	1	80	50%	100	0
Concrete Saw	1	90	20%	100	0
Crane	1	81	16%	100	0
Forklift	2	75	20%	100	0
Paving Equipment		81	20%		
Roller		80	20%		
Skid Steer Loader		79	40%		
Welder	1	74	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 79.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Annex Building
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saws	1	90	20%	1780	10
Excavator	1	81	40%	1780	10
Rubber Tired Loader	1	79	40%	1780	10
Tractor/Loader/Backhoe	1	79	40%	1780	10

Receptor: 10

Results: 1-hour Leq: 43.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Annex Building
Paving/Landscape**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Paving Equipment	1	77	50%	1780	10
Roller	1	80	20%	1780	10
Skid Steer Loader	1	79	40%	1780	10

Receptor: **10**

Results:
1-hour Leq: **37.8**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Sinclair Pavilion
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saws	1	90	20%	820	10
Excavator	1	81	40%	820	10
Rubber Tired Loader	1	79	40%	820	10
Tractor/Loader/Backhoe	1	79	40%	820	10

Receptor: **10**

Results:
1-hour Leq: **50.7**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Sinclair Pavilion
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	820	10
Aerial Lift	1	75	20%	820	10
Cement and Mortar Mixer	1	80	50%	820	10
Crane	1	81	16%	820	10
Forklift	2	75	20%	820	10
Tractor/Loader/Backhoe	1	79	40%	820	10
Welder	1	74	40%	820	10

Receptor: 10

Results: 1-hour Leq: 47.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Photovoltaic Canopies
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	785	10
Aerial Lift	1	75	20%	785	10
Cement and Mortar Mixer	1	80	50%	785	10
Concrete Saw	1	90	20%	785	10
Crane	1	81	16%	785	10
Forklift	1	75	20%	785	10
Tractor/Loader/Backhoe	1	79	40%	785	10

Receptor: 10

Results: 1-hour Leq: 51.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Circulation and Parking Improvements
Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	1785	10
Concrete Saw	1	90	20%	1785	10
Paving Equipment	1	77	50%	1785	10
Roller	1	80	20%	1785	10
Skid Steer Loader	1	80	20%	1785	10
Trencher	1	80	50%	1785	10

Receptor: 10

Results: 1-hour Leq: 44.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Annex Building
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saws	1	90	20%	335	10
Excavator	1	81	40%	335	10
Rubber Tired Loader	1	79	40%	335	10
Tractor/Loader/Backhoe	1	79	40%	335	10

Receptor: 9

Results: 1-hour Leq: 58.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Annex Building
Paving/Landscape**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Paving Equipment	1	77	50%	335	0
Roller	1	80	20%	335	0
Skid Steer Loader	1	79	40%	335	0

Receptor: 9

Results: 1-hour Leq: 62.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Sinclair Pavilion
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saws	1	90	20%	1475	10
Excavator	1	81	40%	1475	10
Rubber Tired Loader	1	79	40%	1475	10
Tractor/Loader/Backhoe	1	79	40%	1475	10

Receptor: 9

Results: 1-hour Leq: 45.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Sinclair Pavilion
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	1475	10
Aerial Lift	1	75	20%	1475	10
Cement and Mortar Mixer	1	80	50%	1475	10
Crane	1	81	16%	1475	10
Forklift	2	75	20%	1475	10
Tractor/Loader/Backhoe	1	79	40%	1475	10
Welder	1	74	40%	1475	10

Receptor: 9

Results: 1-hour Leq: 42.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Photovoltaic Canopies
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	290	10
Aerial Lift	1	75	20%	290	10
Cement and Mortar Mixer	1	80	50%	290	10
Concrete Saw	1	90	20%	290	10
Crane	1	81	16%	290	10
Forklift	1	75	20%	290	10
Tractor/Loader/Backhoe	1	79	40%	290	10

Receptor: 9

Results: 1-hour Leq: 60.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Circulation and Parking Improvements
Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	230	10
Concrete Saw	1	90	20%	230	10
Paving Equipment	1	77	50%	230	10
Roller	1	80	20%	230	10
Skid Steer Loader	1	80	20%	230	10
Trencher	1	80	50%	230	10

Receptor: 9

Results: 1-hour Leq: 62.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Annex Building
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saws	1	90	20%	735	5
Excavator	1	81	40%	735	5
Rubber Tired Loader	1	79	40%	735	5
Tractor/Loader/Backhoe	1	79	40%	735	5

Receptor: 8

Results: 1-hour Leq: 56.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Annex Building
Paving/Landscape**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Paving Equipment	1	77	50%	735	0
Roller	1	80	20%	735	0
Skid Steer Loader	1	79	40%	735	0

Receptor: 8

Results: 1-hour Leq: 55.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Sinclair Pavilion
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saws	1	90	20%	1860	10
Excavator	1	81	40%	1860	10
Rubber Tired Loader	1	79	40%	1860	10
Tractor/Loader/Backhoe	1	79	40%	1860	10

Receptor: 8

Results: 1-hour Leq: 43.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Sinclair Pavilion
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	1860	10
Aerial Lift	1	75	20%	1860	10
Cement and Mortar Mixer	1	80	50%	1860	10
Crane	1	81	16%	1860	10
Forklift	2	75	20%	1860	10
Tractor/Loader/Backhoe	1	79	40%	1860	10
Welder	1	74	40%	1860	10

Receptor: 8

Results: 1-hour Leq: 40.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Photovoltaic Canopies
Building Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	535	10
Aerial Lift	1	75	20%	535	10
Cement and Mortar Mixer	1	80	50%	535	10
Concrete Saw	1	90	20%	535	10
Crane	1	81	16%	535	10
Forklift	1	75	20%	535	10
Tractor/Loader/Backhoe	1	79	40%	535	10

Receptor: 8

Results: 1-hour Leq: 54.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Circulation and Parking Improvements
Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	570	10
Concrete Saw	1	90	20%	570	10
Paving Equipment	1	77	50%	570	10
Roller	1	80	20%	570	10
Skid Steer Loader	1	80	20%	570	10
Trencher	1	80	50%	570	10

Receptor: 8

Results: 1-hour Leq: 54.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Annex Building
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saws	1	90	20%	100	0
Excavator	1	81	40%	100	0
Rubber Tired Loader	1	79	40%	100	0
Tractor/Loader/Backhoe	1	79	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 78.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Annex Building
Paving/Landscape**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Paving Equipment	1	77	50%	100	0
Roller	1	80	20%	100	0
Skid Steer Loader	1	79	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 72.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Sinclair Pavilion
Demolition**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Concrete Saws	1	90	20%	100	0
Excavator	1	81	40%	100	0
Rubber Tired Loader	1	79	40%	100	0
Tractor/Loader/Backhoe	1	79	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 78.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Sinclair Pavilion
*Building Construction***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	100	0
Aerial Lift	1	75	20%	100	0
Cement and Mortar Mixer	1	80	50%	100	0
Crane	1	81	16%	100	0
Forklift	2	75	20%	100	0
Tractor/Loader/Backhoe	1	79	40%	100	0
Welder	1	74	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 75.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

Construction Phase: Hillside Phase 1 - Photovoltaic Canopies
Building Construction

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Air Compressor	1	78	40%	100	0
Aerial Lift	1	75	20%	100	0
Cement and Mortar Mixer	1	80	50%	100	0
Concrete Saw	1	90	20%	100	0
Crane	1	81	16%	100	0
Forklift	1	75	20%	100	0
Tractor/Loader/Backhoe	1	79	40%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 79.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

**Construction Phase: Hillside Phase 1 - Circulation and Parking Improvements
Construction**

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	100	0
Concrete Saw	1	90	20%	100	0
Paving Equipment	1	77	50%	100	0
Roller	1	80	20%	100	0
Skid Steer Loader	1	80	20%	100	0
Trencher	1	80	50%	100	0

Receptor: *100 feet*

Results:
1-hour Leq: 79.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: ArtCenter College Master Plan

Construction Vibration Impacts

Reference Levels at 25 feet are based on FTA, 2006 (Transit Noise and Vibration Impact Assessment)

Calculations using FTA procedure with n= 1.5

ON-SITE CONSTRUCTION ACTIVITIES

Construction Equipment Vibration Levels (PPV) - Building Damages - SOUTH CAMPUS

Equipment	Reference Vibration Levels at 25 ft., PPV	Estimated Vibration Levels at nearest off-site building structures (distance in feet), PPV					
		Commercial Bldg to the west of Raymond Ave.	Commercial Bldg to the north on Arroyo Pkwy	Commercial Bldg to the East	Commercial Building to the Southwest		
		85	10	100	165		
Large Bulldozer	0.089	0.014	0.352	0.011	0.005		
Caisson Drilling	0.089	0.014	0.352	0.011	0.005		
Loaded Trucks	0.076	0.012	0.300	0.010	0.005		
Jackhammer	0.035	0.006	0.138	0.004	0.002		
Small bulldozer	0.003	0.001	0.012	0.000	0.000		
Significance Threshold, PPV		0.2	0.3	0.2	0.2		

Construction Equipment Vibration Levels (PPV) - Building Damages - HILLSIDE CAMPUS

Equipment	Reference Vibration Levels at 25 ft., PPV	Estimated Vibration Levels at nearest off-site building structures (distance in feet), PPV					
		Elwood	Residential				
		45	230				
Large Bulldozer	0.089	0.037	0.003				
Caisson Drilling	0.089	0.037	0.003				
Loaded Trucks	0.076	0.032	0.003				
Jackhammer	0.035	0.015	0.001				
Small bulldozer	0.003	0.001	0.000				
Significance Threshold, PPV		0.12	0.2				

Construction Equipment Vibration Levels (VdB) - Human Annoyance

Equipment	Reference Vibration Levels at 25 ft., VdB	Estimated Vibration Levels at Off-Site Receptors (at note distance in feet), VdB							
		R4	R5	R6	R7	R8	R9	R10	
		695	665	490	1490	535	230	785	
Large Bulldozer	87	44	44	48	34	47	58	42	
Caisson Drilling	87	44	44	48	34	47	58	42	
Loaded Trucks	86	43	43	47	33	46	57	41	
Jackhammer	79	36	36	40	26	39	50	34	
Small bulldozer	58	15	15	19	5	18	29	13	
Significance Threshold, VdB		78	78	78	78	78	78	78	

OFF-SITE CONSTRUCTION HAUL TRUCKS

Off-Site Haul Trucks - Building Damage

Equipment	Reference Vibration Levels at 50 ft., PPV	Estimated Vibration Levels at noted distance in feet, PPV					
		25					
Typical road surface	0.00565	0.016					
Significance Threshold, PPV		0.12					

Ref. Levels based on FTA Figure 7-3 (converted from VdB to PPV)

Off-Site Haul Trucks - Human Annoyance

Equipment	Reference Vibration Levels at 50 ft., VdB	Estimated Vibration Levels at noted distance in feet, VdB					
		25					
Typical road surface	63	72					
Significance Threshold, VdB		72					

Ref. Levels based on FTA Figure 7-3

INPUT: ROADWAYS

ArtCenter - Hillside Campus

Eyestone Environmental					29 September 2017					
SKB					TNM 2.5					

INPUT: ROADWAYS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA				
PROJECT/CONTRACT:	ArtCenter - Hillside Campus									
RUN:	TNM - Haul Trucks									

Roadway		Points			Coordinates (pavement)			Flow Control		Segment	
Name	Width	Name	No.	X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Haul Route	12.0	point1	1	0.0	0.0	0.00	Signal	0.00	100	Average	
		point2	2	1,000.0	0.0	0.00					

INPUT: TRAFFIC FOR LAeq1h Volumes

ArtCenter - Hillside Campus

Eyestone Environmental		29 September 2017											
SKB		TNM 2.5											
INPUT: TRAFFIC FOR LAeq1h Volumes													
PROJECT/CONTRACT:		ArtCenter - Hillside Campus											
RUN:		TNM - Haul Trucks											
Roadway		Points											
Name		Name	No.	Segment		MTrucks		HTrucks		Buses		Motorcycles	
				Autos		V	S	V	S	V	S	V	S
				veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Haul Route		point1	1	20	35	0	0	2	25	0	0	0	0
		point2	2										

INPUT: RECEIVERS

ArtCenter - Hillside Campus

Eyestone Environmental SKB							29 September 2017 TNM 2.5				
INPUT: RECEIVERS											
PROJECT/CONTRACT:		ArtCenter - Hillside Campus									
RUN:		TNM - Haul Trucks									
Receiver											
Name	No.	#DUs	Coordinates (ground)			Height	Input Sound Levels and Criteria				Active
			X	Y	Z	above	Existing	Impact Criteria		NR	in
						Ground	LAeq1h	LAeq1h	Sub'l	Goal	Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
at 25 ft from CL	1	1	250.0	25.0	0.00	4.92	0.00	71	5.0	0.0	Y
at 40 ft from CL	8	1	250.0	40.0	0.00	4.92	0.00	66	10.0	8.0	Y
at 50 ft from CL	10	1	250.0	50.0	0.00	4.92	0.00	66	10.0	8.0	Y

RESULTS: SOUND LEVELS

ArtCenter - Hillside Campus

Eyestone Environmental													29 September 2017	
SKB													TNM 2.5	
													Calculated with TNM 2.5	
RESULTS: SOUND LEVELS														
PROJECT/CONTRACT:			ArtCenter - Hillside Campus											
RUN:			TNM - Haul Trucks											
BARRIER DESIGN:			INPUT HEIGHTS											
ATMOSPHERICS:			68 deg F, 50% RH											
Receiver														
Name		No.	#DUs	Existing LAeq1h	No Barrier LAeq1h	Increase over existing		With Barrier						
					Calculated	Crit'n	Calculated	Crit'n	Type Impact	Calculated LAeq1h	Noise Reduction			Calculated minus Goal
								Sub'l Inc			Calculated	Goal	Calculated	
				dB	dB	dB	dB			dB	dB	dB	dB	dB
at 25 ft from CL		1	1	0.0	58.6	71	58.6	5	----	58.6	0.0	0	0.0	
at 40 ft from CL		8	1	0.0	56.5	66	56.5	10	----	56.5	0.0	8	-8.0	
at 50 ft from CL		10	1	0.0	55.5	66	55.5	10	----	55.5	0.0	8	-8.0	
Dwelling Units			# DUs	Noise Reduction										
				Min	Avg	Max								
				dB	dB	dB								
All Selected			3	0.0	0.0	0.0								
All Impacted			0	0.0	0.0	0.0								
All that meet NR Goal			1	0.0	0.0	0.0								

INPUT: TRAFFIC FOR LAeq1h Volumes

ArtCenter - South Campus

Eyestone Environmental		29 September 2017											
SKB		TNM 2.5											
INPUT: TRAFFIC FOR LAeq1h Volumes													
PROJECT/CONTRACT:		ArtCenter - South Campus											
RUN:		TNM - Haul Trucks											
Roadway	Points												
Name	Name	No.	Segment		MTrucks		HTrucks		Buses		Motorcycles		
			V	S	V	S	V	S	V	S	V	S	
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	
Haul Route	point1	1	26	35	0	0	15	25	0	0	0	0	
	point2	2											

INPUT: RECEIVERS

ArtCenter - South Campus

Eyestone Environmental SKB							29 September 2017 TNM 2.5				
INPUT: RECEIVERS											
PROJECT/CONTRACT:		ArtCenter - South Campus									
RUN:		TNM - Haul Trucks									
Receiver											
Name	No.	#DUs	Coordinates (ground)			Height above Ground	Input Sound Levels and Criteria				Active in Calc.
			X	Y	Z		Existing LAeq1h	Impact Criteria LAeq1h	Sub'l	NR Goal	
			ft	ft	ft	ft	dBA	dBA	dB	dB	
at 25 ft from CL	1	1	250.0	25.0	0.00	4.92	0.00	71	5.0	0.0	Y
at 40 ft from CL	8	1	250.0	40.0	0.00	4.92	0.00	66	10.0	8.0	Y
at 50 ft from CL	10	1	250.0	50.0	0.00	4.92	0.00	66	10.0	8.0	Y

RESULTS: SOUND LEVELS

ArtCenter - South Campus

Eyestone Environmental SKB							29 September 2017 TNM 2.5 Calculated with TNM 2.5						
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:							ArtCenter - South Campus						
RUN:							TNM - Haul Trucks						
BARRIER DESIGN:							INPUT HEIGHTS						
ATMOSPHERICS:							68 deg F, 50% RH						
Receiver													
Name		No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing		With Barrier				
							Calculated	Crit'n	Type Impact	Calculated LAeq1h	Noise Reduction		
								Sub'l Inc			Calculated	Goal	Calculated minus Goal
				dB	dB	dB	dB	dB		dB	dB	dB	dB
at 25 ft from CL		1	1	0.0	66.1	71	66.1	5	----	66.1	0.0	0	0.0
at 40 ft from CL		8	1	0.0	64.0	66	64.0	10	----	64.0	0.0	8	-8.0
at 50 ft from CL		10	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0
Dwelling Units			# DUs	Noise Reduction									
				Min	Avg	Max							
				dB	dB	dB							
All Selected			3	0.0	0.0	0.0							
All Impacted			0	0.0	0.0	0.0							
All that meet NR Goal			1	0.0	0.0	0.0							

Operation Noise Calculations

Outdoor Mechanical Equipment Noise Calculations

Project: ArtCenter College Master Plan Project

Receptor	Estimated Noise Levels, Leq from SOUNDPLAN		Hours of Operations		
	Leq	CNEL	Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
			12	3	2
R4	41.4	43.8	41.4	41.4	34.9
R5	34.8	37.2	34.8	34.8	28.3
R6	33.4	35.8	33.4	33.4	26.9
R7	25.5	27.9	25.5	25.5	19.0

Receptor	Ambient CNEL	Ambient + Project (CNEL)	Increase (CNEL)	ambient (Leq)	Ambient + Project (Leq)	Increase (Leq)
R4	68.7	68.7	0.0	62.7	62.7	0.0
R5	64.2	64.2	0.0	56.1	56.1	0.0
R6	60.1	60.1	0.0	53.8	53.8	0.0
R7	65.2	65.2	0.0	60.3	60.3	0.0

Parking Structure Noise Calculations

Project: ArtCenter College Master Plan Project

Hours of Operations

Receptor	Estimated Noise Levels, Leq from SOUNDPLAN		Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
	Leq	CNEL			
			12	3	2
R4	38.2	40.6	38.2	38.2	31.7
R5	30.0	32.4	30.0	30.0	23.5
R6	25.1	27.5	25.1	25.1	18.6
R7	31.1	33.5	31.1	31.1	24.6

Receptor	Ambient CNEL	Ambient + Project (CNEL)	Increase (CNEL)	ambient (Leq)	Ambient + Project (Leq)	Increase (Leq)
R4	68.7	68.7	0.0	62.7	62.7	0.0
R5	64.2	64.2	0.0	56.1	56.1	0.0
R6	60.1	60.1	0.0	53.8	53.8	0.0
R7	65.2	65.2	0.0	60.3	60.3	0.0

Outdoor Noise Calculations

Project: ArtCenter College Master Plan Project

OUTDOOR SPACES - SOUTH CAMPUS

Hours of Operations

Estimated noise levels, Leq (FROM SOUNDPLAN)					Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
Receptor	Sound System	Occupants	Total, Leq	CNEL	9	3	0
R4	50.9	37.2	51.1	49.9	49.8	51.1	0.0
R5	34.5	34.2	37.4	36.2	36.1	37.4	0.0
R6	47.2	33.8	47.4	46.3	46.1	47.4	0.0
R7	43.2	32.6	43.6	42.4	42.3	43.6	0.0
West PL	79.6	61.4	79.7	78.5	78.4	79.7	0.0

TOTAL COMBINED

Receptor	Project (CNEL)	Ambient (CNEL)	Ambient + Project (CNEL)	Increase (CNEL)	Project Noise, (Leq)	ambient (Leq)	Ambient + Project (Leq)
R4	49.9	68.7	68.8	0.1	51.1	62.7	63.0
R5	36.2	64.2	64.2	0.0	37.4	56.1	56.2
R6	46.3	60.1	60.3	0.2	47.4	53.8	54.7
R7	42.4	65.2	65.2	0.0	43.6	60.3	60.4

ArtCenter College Master Plan EIR Source Levels in dB(A) - Speaker

3

Name	Source type	Lw dB(A)	125Hz dB(A)	250Hz dB(A)	500Hz dB(A)	1kHz dB(A)	2kHz dB(A)	4kHz dB(A)	8kHz dB(A)
MQ-Speaker1	Point	124.7	93.9	103.5	111.7	116.8	119.0	118.8	118.7
MQ-Speaker2	Point	124.7	93.9	103.5	111.7	116.8	119.0	118.8	118.7
MQ-Speaker3	Point	124.7	93.9	103.5	111.7	116.8	119.0	118.8	118.7
MQ-Speaker4	Point	124.7	93.9	103.5	111.7	116.8	119.0	118.8	118.7
MQ-Speaker5	Point	108.6	77.8	87.4	95.6	100.7	102.9	102.7	102.6
MQ-Speaker5	Point	108.6	77.8	87.4	95.6	100.7	102.9	102.7	102.6
NQ-Speaker1	Point	108.6	77.8	87.4	95.6	100.7	102.9	102.7	102.6
NQ-Speaker2	Point	108.6	77.8	87.4	95.6	100.7	102.9	102.7	102.6

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ArtCenter College Master Plan EIR Assessed contribution level - Speaker

Source	Leq,d dB(A)	
Receiver R4		
	Leq,d 50.9	dB(A)
MQ-Speaker1	37.1	
MQ-Speaker2	50.3	
MQ-Speaker3	35.4	
MQ-Speaker4	36.1	
MQ-Speaker5	7.7	
MQ-Speaker5	9.5	
NQ-Speaker2	13.4	
NQ-Speaker1	31.6	
Receiver R5		
	Leq,d 34.5	dB(A)
MQ-Speaker1	25.4	
MQ-Speaker2	28.5	
MQ-Speaker3	27.4	
MQ-Speaker4	25.5	
MQ-Speaker5	18.9	
MQ-Speaker5	18.6	
NQ-Speaker2	28.6	
NQ-Speaker1	8.1	
Receiver R6		
	Leq,d 32.3	dB(A)
MQ-Speaker1	28.8	
MQ-Speaker2	22.4	
MQ-Speaker3	24.1	
MQ-Speaker4	25.6	
MQ-Speaker5	13.1	
MQ-Speaker5	6.8	
NQ-Speaker2	20.8	
NQ-Speaker1	3.3	
Receiver R6b		
	Leq,d 47.2	dB(A)
MQ-Speaker1	24.5	
MQ-Speaker2	31.0	
MQ-Speaker3	28.3	
MQ-Speaker4	46.9	
MQ-Speaker5	13.1	
MQ-Speaker5	17.6	
NQ-Speaker2	27.6	
NQ-Speaker1	5.0	

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**ArtCenter College Master Plan EIR
Assessed contribution level - Speaker**

Source	Leq,d dB(A)	
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Receiver R7	Leq,d 43.2	dB(A)
MQ-Speaker1	21.1	
MQ-Speaker2	23.3	
MQ-Speaker3	38.9	
MQ-Speaker4	40.8	
MQ-Speaker5	6.2	
MQ-Speaker5	26.2	
NQ-Speaker2	8.3	
NQ-Speaker1	8.2	

Receiver West PL	Leq,d 79.6	dB(A)
MQ-Speaker1	75.4	
MQ-Speaker2	73.7	
MQ-Speaker3	73.4	
MQ-Speaker4	70.4	
MQ-Speaker5	44.8	
MQ-Speaker5	44.7	
NQ-Speaker2	11.3	
NQ-Speaker1	16.6	

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**ArtCenter College Master Plan EIR
Source Levels in dB(A) - People**

3

Name	Source type	Lw dB(A)
NQ1	Area	95.7
NQ2	Area	92.1
MQ1	Area	91.9
MQ2	Area	94.8
MQ3	Area	97.4
MQ4	Area	99.3
NQ3	Area	91.5
NQ4	Area	90.8
NQ5	Area	91.3

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ArtCenter College Master Plan EIR Assessed contribution level - People

Source	Leq,d dB(A)	
Receiver R4		
	Leq,d 37.2	dB(A)
NQ1	26.2	
NQ2	19.4	
MQ1	22.6	
MQ2	13.7	
MQ3	16.9	
MQ4	34.6	
NQ3	27.6	
NQ4	26.2	
NQ5	28.0	
Receiver R5		
	Leq,d 34.2	dB(A)
NQ1	11.8	
NQ2	29.5	
MQ1	13.6	
MQ2	23.8	
MQ3	29.0	
MQ4	27.8	
NQ3	7.9	
NQ4	15.6	
NQ5	10.6	
Receiver R6		
	Leq,d 28.2	dB(A)
NQ1	6.0	
NQ2	22.7	
MQ1	22.5	
MQ2	17.0	
MQ3	19.9	
MQ4	20.3	
NQ3	4.3	
NQ4	13.6	
NQ5	5.2	
Receiver R6b		
	Leq,d 33.8	dB(A)
NQ1	6.3	
NQ2	20.1	
MQ1	14.6	
MQ2	31.1	
MQ3	28.8	
MQ4	22.8	
NQ3	5.5	
NQ4	6.6	
NQ5	6.1	

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ArtCenter College Master Plan EIR Assessed contribution level - People

Source	Leq,d dB(A)	
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Receiver R7	Leq,d 32.6	dB(A)
NQ1	28.6	
NQ2	2.1	
MQ1	2.7	
MQ2	21.9	
MQ3	21.4	
MQ4	26.3	
NQ3	21.5	
NQ4	22.1	
NQ5	19.5	

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ArtCenter College Master Plan EIR Source Levels in dB(A) - Mechanical with CNG

3

Name	Source type	Lw dB(A)
CNG Compressor	Point	108.
Mechanical1	Point	85.0
Mechanical2	Point	85.0
Mechanical3	Point	85.0
Mechanical4	Point	85.0
Mechanical5	Point	85.0
Mechanical6	Point	85.0
Mechanical7	Point	85.0
Mechanical8	Point	85.0
Mechanical9	Point	85.0
Mechanical10	Point	85.0
Mechanical11	Point	85.0
Mechanical12	Point	85.0
Mechanical13	Point	85.0
Mechanical14	Point	85.0

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**ArtCenter College Master Plan EIR
Assessed contribution level - Mechanical with CNG**

Source	Leq,d dB(A)	
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Receiver R4	Leq,d 41.4	dB(A)
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CNG Compressor	41.1	
Mechanical1	15.5	
Mechanical2	15.8	
Mechanical3	17.6	
Mechanical4	16.4	
Mechanical5	18.3	
Mechanical6	18.2	
Mechanical7	17.7	
Mechanical8	18.4	
Mechanical9	19.9	
Mechanical10	17.8	
Mechanical11	18.0	
Mechanical12	20.8	
Mechanical13	22.8	
Mechanical14	22.8	

Receiver R5	Leq,d 34.8	dB(A)
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CNG Compressor	27.7	
Mechanical1	18.4	
Mechanical2	21.3	
Mechanical3	19.4	
Mechanical4	22.0	
Mechanical5	22.4	
Mechanical6	20.6	
Mechanical7	21.4	
Mechanical8	21.8	
Mechanical9	21.5	
Mechanical10	26.4	
Mechanical11	26.6	
Mechanical12	22.0	
Mechanical13	17.6	
Mechanical14	21.2	

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**ArtCenter College Master Plan EIR
Assessed contribution level - Mechanical with CNG**

Source	Leq,d dB(A)	
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Receiver R6	Leq,d 31.9	dB(A)
CNG Compressor	25.3	
Mechanical1	14.4	
Mechanical2	15.1	
Mechanical3	15.3	
Mechanical4	16.2	
Mechanical5	15.8	
Mechanical6	17.1	
Mechanical7	17.2	
Mechanical8	17.6	
Mechanical9	20.9	
Mechanical10	21.7	
Mechanical11	22.2	
Mechanical12	22.7	
Mechanical13	21.6	
Mechanical14	20.1	

Receiver R6b	Leq,d 33.4	dB(A)
CNG Compressor	27.4	
Mechanical1	15.0	
Mechanical2	15.4	
Mechanical3	13.5	
Mechanical4	16.9	
Mechanical5	13.4	
Mechanical6	17.9	
Mechanical7	14.3	
Mechanical8	14.8	
Mechanical9	22.5	
Mechanical10	22.7	
Mechanical11	23.9	
Mechanical12	25.6	
Mechanical13	24.2	
Mechanical14	20.2	

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**ArtCenter College Master Plan EIR
Assessed contribution level - Mechanical with CNG**

Source	Leq,d dB(A)	
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Receiver R7	Leq,d 25.5	dB(A)
CNG Compressor	16.6	
Mechanical1	15.7	
Mechanical2	15.4	
Mechanical3	15.2	
Mechanical4	15.0	
Mechanical5	14.7	
Mechanical6	14.4	
Mechanical7	13.2	
Mechanical8	13.7	
Mechanical9	11.3	
Mechanical10	11.1	
Mechanical11	10.9	
Mechanical12	10.1	
Mechanical13	10.4	
Mechanical14	11.2	

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	AES 22801 Crespi St Woodland Hills, CA 91364 USA	3
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Off-Site Traffic Noise Calculations

Project: ArtCenter College Master Plan Project

Traffic Distribution as % of ADT				
Vehicle Type	Day	Eve	Night	Sub total
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

PHV to
ADT factor
8%

EXISTING CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume		PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
					PHV	ADT				
Lida Street										
- West of Linda Vista Ave.	30	10	25	35	481	6,013	8%	0	0	65.2
Linda Vista Avenue										
- South of Lida St.	40	10	30	35	666	8,325	8%	0	0	65.9
Orange Grove Boulevard										
- North of Rosemont Ave.	60	10	40	35	1,417	17,713	8%	0	0	67.8
- Between Rosemont Ave. and Walnut St.	60	10	40	35	1,702	21,275	8%	0	0	68.6
- South of Walnut St.	60	10	40	35	1,752	21,900	8%	0	0	68.8
Rosemont Avenue										
- West of Orange Grove Blvd.	30	10	25	35	439	5,488	8%	0	0	64.8
- East of Orange Grove Blvd.	30	10	25	35	194	2,425	8%	0	0	61.3
Walnut Street										
- Between Orange Grove Blvd. and Fair Oaks Ave	60	10	40	35	1,061	13,263	8%	0	0	66.6
- Between Fair Oaks Ave. and Raymond Ave.	60	10	40	35	1,679	20,988	8%	0	0	68.6
- Between Raymond Ave. and Marengo Ave.	60	10	40	35	1,644	20,550	8%	0	0	68.5
Del Mar Boulevard										
- Between St. John Ave. and Pasadena Ave.	60	10	40	35	969	12,113	8%	0	0	66.2
- Between Pasadena Ave. and Fair Oaks Ave.	60	10	40	35	1,867	23,338	8%	0	0	69.0
- Between Fair Oaks Ave. and Arroyo Pkwy.	60	10	40	35	1,540	19,250	8%	0	0	68.2
California Boulevard										
- Between St. John Ave. and Pasadena Ave.	50	10	35	35	1,311	16,388	8%	0	0	68.1
- Between Pasadena Ave. and Fair Oaks Ave.	70	10	45	35	1,552	19,400	8%	0	0	67.6
- Between Fair Oaks Ave. and Arroyo Pkwy.	50	10	35	35	1,520	19,000	8%	0	0	68.7
Glenarm Street										
- Between Pasadena Ave. and Fair Oaks Ave.	30	10	25	35	523	6,538	8%	0	0	65.6
- Between Fair Oaks Ave. and Arroyo Pkwy.	50	10	35	35	1,158	14,475	8%	0	0	67.6
Pasadena Avenue										

EXISTING CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume		PHV to ADT factor	Barrier Atten.	Site	24-Hour CNEL
					PHV	ADT			Adjust., dBA	
- Between Walnut St. and Del Mar Blvd.	40	10	30	35	1,913	23,913	8%	0	0	70.4
- Between Del Mar Blvd. and California St.	40	10	30	35	1,838	22,975	8%	0	0	70.3
- Between California Blvd. and Glenarm St.	40	10	30	35	2,257	28,213	8%	0	0	71.2
Fair Oaks Avenue										
- Between Walnut St. and Del Mar Blvd.	60	10	40	35	1,746	21,825	8%	0	0	68.7
- Between Del Mar Blvd. and California St.	60	10	40	35	2,175	27,188	8%	0	0	69.7
- Between California Blvd. and Glenarm St.	60	10	40	35	2,208	27,600	8%	0	0	69.8
Raymond Avenue										
- Between Walnut St. and Del Mar Blvd.	60	10	40	35	678	8,475	8%	0	0	64.6
- Between Del Mar Blvd. and California St.	60	10	40	35	879	10,988	8%	0	0	65.8
- Between California Blvd. and Glenarm St.	60	10	40	35	873	10,913	8%	0	0	65.7
Arroyo Parkway										
- Between Walnut St. and Del Mar Blvd.	70	10	45	35	1,541	19,263	8%	0	0	67.6
- Between Del Mar Blvd. and California St.	70	10	45	35	1,889	23,613	8%	0	0	68.5
- Between California Blvd. and Glenarm St.	70	10	45	35	2,599	32,488	8%	0	0	69.9

* Estimated based on Google Earth map.

** Calculated using FHWA's TNM Version 2.5 Computer Noise Model.

Off-Site Traffic Noise Calculations

Project: ArtCenter College Master Plan Project

Traffic Distribution as % of ADT				
Vehicle Type	Day	Eve	Night	Sub total
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

PHV to
ADT factor
8%

EXISTING + PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume		PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
					PHV	ADT				
Lida Street										
- West of Linda Vista Ave.	30	10	25	35	487	6,088	8%	0	0	65.3
Linda Vista Avenue										
- South of Lida St.	40	10	30	35	672	8,400	8%	0	0	65.9
Orange Grove Boulevard										
- North of Rosemont Ave.	60	10	40	35	1,417	17,713	8%	0	0	67.8
- Between Rosemont Ave. and Walnut St.	60	10	40	35	1,708	21,350	8%	0	0	68.6
- South of Walnut St.	60	10	40	35	1,752	21,900	8%	0	0	68.8
Rosemont Avenue										
- West of Orange Grove Blvd.	30	10	25	35	445	5,563	8%	0	0	64.9
- East of Orange Grove Blvd.	30	10	25	35	194	2,425	8%	0	0	61.3
Walnut Street										
- Between Orange Grove Blvd. and Fair Oaks Ave	60	10	40	35	1,067	13,338	8%	0	0	66.6
- Between Fair Oaks Ave. and Raymond Ave.	60	10	40	35	1,685	21,063	8%	0	0	68.6
- Between Raymond Ave. and Marengo Ave.	60	10	40	35	1,644	20,550	8%	0	0	68.5
Del Mar Boulevard										
- Between St. John Ave. and Pasadena Ave.	60	10	40	35	969	12,113	8%	0	0	66.2
- Between Pasadena Ave. and Fair Oaks Ave.	60	10	40	35	1,881	23,513	8%	0	0	69.1
- Between Fair Oaks Ave. and Arroyo Pkwy.	60	10	40	35	1,543	19,288	8%	0	0	68.2
California Boulevard										
- Between St. John Ave. and Pasadena Ave.	50	10	35	35	1,330	16,625	8%	0	0	68.2
- Between Pasadena Ave. and Fair Oaks Ave.	70	10	45	35	1,589	19,863	8%	0	0	67.7
- Between Fair Oaks Ave. and Arroyo Pkwy.	50	10	35	35	1,569	19,613	8%	0	0	68.9
Glenarm Street										
- Between Pasadena Ave. and Fair Oaks Ave.	30	10	25	35	542	6,775	8%	0	0	65.8
- Between Fair Oaks Ave. and Arroyo Pkwy.	50	10	35	35	1,211	15,138	8%	0	0	67.8
Pasadena Avenue										

EXISTING + PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume		PHV to ADT factor	Barrier Atten.	Site	24-Hour CNEL
					PHV	ADT			Adjust., dBA	
- Between Walnut St. and Del Mar Blvd.	40	10	30	35	1,931	24,138	8%	0	0	70.5
- Between Del Mar Blvd. and California St.	40	10	30	35	1,847	23,088	8%	0	0	70.3
- Between California Blvd. and Glenarm St.	40	10	30	35	2,270	28,375	8%	0	0	71.2
Fair Oaks Avenue										
- Between Walnut St. and Del Mar Blvd.	60	10	40	35	1,746	21,825	8%	0	0	68.7
- Between Del Mar Blvd. and California St.	60	10	40	35	2,189	27,363	8%	0	0	69.7
- Between California Blvd. and Glenarm St.	60	10	40	35	2,225	27,813	8%	0	0	69.8
Raymond Avenue										
- Between Walnut St. and Del Mar Blvd.	60	10	40	35	687	8,588	8%	0	0	64.7
- Between Del Mar Blvd. and California St.	60	10	40	35	907	11,338	8%	0	0	65.9
- Between California Blvd. and Glenarm St.	60	10	40	35	999	12,488	8%	0	0	66.3
Arroyo Parkway										
- Between Walnut St. and Del Mar Blvd.	70	10	45	35	1,541	19,263	8%	0	0	67.6
- Between Del Mar Blvd. and California St.	70	10	45	35	1,901	23,763	8%	0	0	68.5
- Between California Blvd. and Glenarm St.	70	10	45	35	2,636	32,950	8%	0	0	69.9

* Estimated based on Google Earth map.

** Calculated using FHWA's TNM Version 2.5 Computer Noise Model.

Off-Site Traffic Noise Calculations

Project: ArtCenter College Master Plan Project

Traffic Distribution as % of ADT				
Vehicle Type	Day	Eve	Night	Sub total
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

PHV to
ADT factor
8%

FUTURE NO PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume		PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
					PHV	ADT				
Lida Street										
- West of Linda Vista Ave.	30	10	25	35	527	6,584	8%	0	0	65.6
Linda Vista Avenue										
- South of Lida St.	40	10	30	35	729	9,116	8%	0	0	66.3
Orange Grove Boulevard										
- North of Rosemont Ave.	60	10	40	35	1,552	19,395	8%	0	0	68.2
- Between Rosemont Ave. and Walnut St.	60	10	40	35	1,863	23,288	8%	0	0	69.0
- South of Walnut St.	60	10	40	35	1,918	23,981	8%	0	0	69.2
Rosemont Avenue										
- West of Orange Grove Blvd.	30	10	25	35	481	6,009	8%	0	0	65.2
- East of Orange Grove Blvd.	30	10	25	35	212	2,655	8%	0	0	61.7
Walnut Street										
- Between Orange Grove Blvd. and Fair Oaks Ave	60	10	40	35	1,161	14,513	8%	0	0	67.0
- Between Fair Oaks Ave. and Raymond Ave.	60	10	40	35	1,838	22,975	8%	0	0	69.0
- Between Raymond Ave. and Marengo Ave.	60	10	40	35	1,800	22,502	8%	0	0	68.9
Del Mar Boulevard										
- Between St. John Ave. and Pasadena Ave.	60	10	40	35	1,061	13,263	8%	0	0	66.6
- Between Pasadena Ave. and Fair Oaks Ave.	60	10	40	35	2,044	25,550	8%	0	0	69.4
- Between Fair Oaks Ave. and Arroyo Pkwy.	60	10	40	35	1,686	21,075	8%	0	0	68.6
California Boulevard										
- Between St. John Ave. and Pasadena Ave.	50	10	35	35	1,435	17,938	8%	0	0	68.5
- Between Pasadena Ave. and Fair Oaks Ave.	70	10	45	35	1,699	21,238	8%	0	0	68.0
- Between Fair Oaks Ave. and Arroyo Pkwy.	50	10	35	35	1,664	20,800	8%	0	0	69.1
Glenarm Street										
- Between Pasadena Ave. and Fair Oaks Ave.	30	10	25	35	572	7,150	8%	0	0	66.0
- Between Fair Oaks Ave. and Arroyo Pkwy.	50	10	35	35	1,268	15,850	8%	0	0	68.0
Pasadena Avenue										

FUTURE NO PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume		PHV to ADT factor	Barrier Atten.	Site	24-Hour CNEL
					PHV	ADT			Adjust., dBA	
- Between Walnut St. and Del Mar Blvd.	40	10	30	35	2,095	26,184	8%	0	0	70.8
- Between Del Mar Blvd. and California St.	40	10	30	35	2,013	25,163	8%	0	0	70.7
- Between California Blvd. and Glenarm St.	40	10	30	35	2,471	30,888	8%	0	0	71.6
Fair Oaks Avenue										
- Between Walnut St. and Del Mar Blvd.	60	10	40	35	1,912	23,900	8%	0	0	69.1
- Between Del Mar Blvd. and California St.	60	10	40	35	2,381	29,763	8%	0	0	70.1
- Between California Blvd. and Glenarm St.	60	10	40	35	2,418	30,225	8%	0	0	70.2
Raymond Avenue										
- Between Walnut St. and Del Mar Blvd.	60	10	40	35	742	9,275	8%	0	0	65.0
- Between Del Mar Blvd. and California St.	60	10	40	35	963	12,038	8%	0	0	66.2
- Between California Blvd. and Glenarm St.	60	10	40	35	955	11,938	8%	0	0	66.1
Arroyo Parkway										
- Between Walnut St. and Del Mar Blvd.	70	10	45	35	1,687	21,092	8%	0	0	68.0
- Between Del Mar Blvd. and California St.	70	10	45	35	2,068	25,850	8%	0	0	68.9
- Between California Blvd. and Glenarm St.	70	10	45	35	2,845	35,563	8%	0	0	70.3

* Estimated based on Google Earth map.

** Calculated using FHWA's TNM Version 2.5 Computer Noise Model.

Off-Site Traffic Noise Calculations
Pro Project: ArtCenter College Master Plan Project

Traffic Distribution as % of ADT				
Vehicle Type	Day	Eve	Night	Sub total
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

PHV to
ADT factor
8%

FUTURE + PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume		PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
					PHV	ADT				
Lida Street										
- West of Linda Vista Ave.	30	10	25	35	533	6,659	8%	0	0	65.7
Linda Vista Avenue										
- South of Lida St.	40	10	30	35	735	9,191	8%	0	0	66.3
Orange Grove Boulevard										
- North of Rosemont Ave.	60	10	40	35	1,552	19,395	8%	0	0	68.2
- Between Rosemont Ave. and Walnut St.	60	10	40	35	1,869	23,363	8%	0	0	69.0
- South of Walnut St.	60	10	40	35	1,918	23,981	8%	0	0	69.2
Rosemont Avenue										
- West of Orange Grove Blvd.	30	10	25	35	487	6,084	8%	0	0	65.3
- East of Orange Grove Blvd.	30	10	25	35	212	2,655	8%	0	0	61.7
Walnut Street										
- Between Orange Grove Blvd. and Fair Oaks Ave	60	10	40	35	1,167	14,588	8%	0	0	67.0
- Between Fair Oaks Ave. and Raymond Ave.	60	10	40	35	1,844	23,050	8%	0	0	69.0
- Between Raymond Ave. and Marengo Ave.	60	10	40	35	1,800	22,502	8%	0	0	68.9
Del Mar Boulevard										
- Between St. John Ave. and Pasadena Ave.	60	10	40	35	1,061	13,263	8%	0	0	66.6
- Between Pasadena Ave. and Fair Oaks Ave.	60	10	40	35	2,058	25,725	8%	0	0	69.5
- Between Fair Oaks Ave. and Arroyo Pkwy.	60	10	40	35	1,689	21,113	8%	0	0	68.6
California Boulevard										
- Between St. John Ave. and Pasadena Ave.	50	10	35	35	1,454	18,175	8%	0	0	68.6
- Between Pasadena Ave. and Fair Oaks Ave.	70	10	45	35	1,736	21,700	8%	0	0	68.1
- Between Fair Oaks Ave. and Arroyo Pkwy.	50	10	35	35	1,713	21,413	8%	0	0	69.3
Glenarm Street										
- Between Pasadena Ave. and Fair Oaks Ave.	30	10	25	35	591	7,388	8%	0	0	66.1
- Between Fair Oaks Ave. and Arroyo Pkwy.	50	10	35	35	1,321	16,513	8%	0	0	68.1
Pasadena Avenue										

FUTURE + PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume		PHV to ADT factor	Barrier Atten.	Site	24-Hour CNEL
					PHV	ADT			Adjust., dBA	
- Between Walnut St. and Del Mar Blvd.	40	10	30	35	2,113	26,409	8%	0	0	70.9
- Between Del Mar Blvd. and California St.	40	10	30	35	2,022	25,275	8%	0	0	70.7
- Between California Blvd. and Glenarm St.	40	10	30	35	2,484	31,050	8%	0	0	71.6
Fair Oaks Avenue										
- Between Walnut St. and Del Mar Blvd.	60	10	40	35	1,912	23,900	8%	0	0	69.1
- Between Del Mar Blvd. and California St.	60	10	40	35	2,395	29,938	8%	0	0	70.1
- Between California Blvd. and Glenarm St.	60	10	40	35	2,435	30,438	8%	0	0	70.2
Raymond Avenue										
- Between Walnut St. and Del Mar Blvd.	60	10	40	35	751	9,388	8%	0	0	65.1
- Between Del Mar Blvd. and California St.	60	10	40	35	990	12,375	8%	0	0	66.3
- Between California Blvd. and Glenarm St.	60	10	40	35	1,082	13,525	8%	0	0	66.7
Arroyo Parkway										
- Between Walnut St. and Del Mar Blvd.	70	10	45	35	1,687	21,092	8%	0	0	68.0
- Between Del Mar Blvd. and California St.	70	10	45	35	2,080	26,000	8%	0	0	68.9
- Between California Blvd. and Glenarm St.	70	10	45	35	2,882	36,025	8%	0	0	70.3

* Estimated based on Google Earth map.

** Calculated using FHWA's TNM Version 2.5 Computer Noise Model.