

Appendix 13

Noise Calculation Worksheets

Mirman School Project

Noise Calculations Worksheets

Provided by Acoustical Engineering Services

Ambient Noise Measurements

Location: R1
Date: 10/1/2019

Time	Overload	Leq	Lmax	L10	L90
10:20:07 AM	No	47.4	52.9	50.7	43.3
10:21:07 AM	No	48.5	56.3	51.7	43.7
10:22:07 AM	No	57.7	65.9	62.1	43.8
10:23:07 AM	No	53.1	58.6	55.8	43.8
10:24:07 AM	No	46.5	57.9	47.9	43.5
10:25:07 AM	No	43.3	47.3	44.9	41.6
10:26:07 AM	No	45.2	58.8	46.2	41.6
10:27:07 AM	No	44.9	53	46.3	42.7
10:28:07 AM	No	46.2	50.7	48.9	43.4
10:29:07 AM	No	47.2	49.9	48.8	45.6
10:30:07 AM	No	47.5	57.3	49.4	44.3
10:31:07 AM	No	47.4	60.5	48.5	43.5
10:32:07 AM	No	49	56.8	51.3	44.9
10:33:07 AM	No	49.7	57.3	53	45.3
10:34:07 AM	No	49.2	53.9	51.5	45.9

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Time	Overload	Leq	Lmax	L10	L90
3:59:08 PM	No	40.6	45.1	42.3	38.6
4:00:08 PM	No	40.6	45.1	42	38.9
4:01:08 PM	No	41.5	46	43.5	39.6
4:02:08 PM	No	42.3	50.8	45.3	38.5
4:03:08 PM	No	48.9	61.1	46.9	39.9
4:04:08 PM	No	58.9	66.5	64.2	43.4
4:05:08 PM	No	56.9	63.5	61.7	41.5
4:06:08 PM	No	44.7	54.5	47.1	38.8
4:07:08 PM	No	43	51.4	45.7	40.4
4:08:08 PM	No	42.5	52.1	47.9	36.1
4:09:08 PM	No	38.1	41.9	40.7	35.7
4:10:08 PM	No	39.2	44.2	41	36.6
4:11:08 PM	No	53.6	65.6	57.2	43.2
4:12:08 PM	No	49.5	56	54.6	43.2
4:13:08 PM	No	41.2	45.5	43.9	35.8

50.8

Location: R2
Date: 10/1/2019

Time	Overload	Leq	Lmax	L10	L90
11:52:27 AM	No	52.2	62.8	57.2	42.5
11:53:27 AM	No	49.5	60.2	54.1	39.9
11:54:27 AM	No	49.1	55	52.9	41.2
11:55:27 AM	No	47.3	54.9	52.2	41.4
11:56:27 AM	No	49.7	59.3	53.7	42.5
11:57:27 AM	No	52.6	64.2	58.3	39.6
11:58:27 AM	No	51	61.6	54.7	40.7
11:59:27 AM	No	49	54.7	51.7	45.3
12:00:27 PM	No	46.5	58.8	49.1	41.7
12:01:27 PM	No	53.6	64.2	56.8	43.4
12:02:27 PM	No	50.6	58.6	55.2	41.1
12:03:27 PM	No	41.6	47.2	42.6	40.3
12:04:27 PM	No	41.5	52.6	41.1	39.6
12:05:27 PM	No	42.5	47.8	45	39.7
12:06:27 PM	No	51.6	60.6	57.1	40.5
		49.9			

Time	Overload	Leq	Lmax	L10	L90
5:22:47 PM	No	46.6	58.1	51.4	35.3
5:23:47 PM	No	36.4	38.9	37.9	34.9
5:24:47 PM	No	51.3	59.2	56.2	37.8
5:25:47 PM	No	48.7	56.3	51.9	41.1
5:26:47 PM	No	51.2	61.6	52.8	45.4
5:27:47 PM	No	46.5	54.6	52.1	40.1
5:28:47 PM	No	56.3	63	60.8	44.7
5:29:47 PM	No	53.6	63	57.7	40.3
5:30:47 PM	No	42	49.4	44.8	37.5
5:31:47 PM	No	45	54.6	47.7	39.5
5:32:47 PM	No	46.9	56	51.6	38
5:33:47 PM	No	40.3	46.7	42.4	37.9
5:34:47 PM	No	54.6	65.4	59.7	36.5
5:35:47 PM	No	61.3	69.1	67.4	44
5:36:47 PM	No	43.9	50.7	47.5	39
		52.8			

Location: R3
Date: 10/1/2019

Time	Overload	Leq	Lmax	L10	L90
11:26:32 AM	No	59.9	66	63.7	51.9
11:27:32 AM	No	59.8	64.3	63.1	55.6
11:28:32 AM	No	58.8	64.4	62.9	51.1
11:29:32 AM	No	58.6	64.8	62.9	51.4
11:30:32 AM	No	62.5	69.3	65.7	55.5
11:31:32 AM	No	60.1	66	63.5	54.4
11:32:32 AM	No	62.1	73.7	63	54.2
11:33:32 AM	No	57	63.7	58.8	53.6
11:34:32 AM	No	58.7	65.8	63.2	52.5
11:35:32 AM	No	59.9	65.1	63.1	54.2
11:36:32 AM	No	57.9	65.8	62.7	50.9
11:37:32 AM	No	59.2	65.8	63.6	50.4
11:38:32 AM	No	61.3	66.5	64.1	55.7
11:39:32 AM	No	58.3	65.2	62.1	51.8
11:40:32 AM	No	59.9	64.2	63.3	52.7
		59.9			

Time	Overload	Leq	Lmax	L10	L90
4:36:05 PM	No	62.7	66.3	64.9	58.8
4:37:05 PM	No	66.2	73.6	69.8	59.1
4:38:05 PM	No	62.6	66.8	65	51.2
4:39:05 PM	No	65.7	76.6	68.1	53.5
4:40:05 PM	No	60.2	66.4	63.1	50.7
4:41:05 PM	No	61	66.4	64.5	53.8
4:42:05 PM	No	62.4	66.7	65.4	47.9
4:43:05 PM	No	62.5	66.3	65.2	52.2
4:44:05 PM	No	66.3	78.1	67.8	56.9
4:45:05 PM	No	62.9	68.7	65.4	49.9
4:46:05 PM	No	62.5	67.8	65.5	56.3
4:47:05 PM	No	62.3	67.2	65.9	44.9
4:48:05 PM	No	62.7	67.6	65.8	54.1
4:49:05 PM	No	62.9	67.4	66.5	49.8
4:50:05 PM	No	62.9	68.9	65.9	49.7
		63.4			

Location: R4
Date: 10/1/2019

Time	Overload	Leq	Lmax	L10	L90
10:39:20 AM	No	57.8	65	61.3	52.1
10:40:20 AM	No	54.5	64.2	56.8	49.6
10:41:20 AM	No	51.6	55.7	53.7	49.5
10:42:20 AM	No	50.1	56	52.4	46.9
10:43:20 AM	No	50.6	62.2	52.4	46.8
10:44:20 AM	No	46.7	54	48	43.7
10:45:20 AM	No	51.8	55.7	54.2	47.1
10:46:20 AM	No	44.5	48.3	46.5	41.6
10:47:20 AM	No	44	48.7	45.1	42.7
10:48:20 AM	No	46.5	53.1	50.1	42.9
10:49:20 AM	No	48.5	54.9	51.8	42.5
10:50:20 AM	No	45.8	55.8	47.9	41.9
10:51:20 AM	No	45.3	53.8	47.2	42.7
10:52:20 AM	No	51.3	57.4	55.1	44.5
10:53:20 AM	No	45.5	52	48.8	42.5
		50.9			

Time	Overload	Leq	Lmax	L10	L90
4:17:08 PM	No	52.1	64.2	55.8	45.7
4:18:08 PM	No	50.6	65.5	50.4	44.3
4:19:08 PM	No	47.5	53.4	50.6	43.6
4:20:08 PM	No	47.7	54.1	50.1	44.6
4:21:08 PM	No	55.7	64.9	61.4	45.6
4:22:08 PM	No	49	54.2	52.1	44.3
4:23:08 PM	No	45.8	50	47.9	43.6
4:24:08 PM	No	45.3	47.5	46.9	42.6
4:25:08 PM	No	46.9	53	49.4	43
4:26:08 PM	No	53	62	57.4	45.6
4:27:08 PM	No	47.1	54	50.2	44
4:28:08 PM	No	47.8	55.3	51.3	43.8
4:29:08 PM	No	46.1	52.3	48.7	42.5
4:30:08 PM	No	44.8	48.4	46.4	42.3
4:31:08 PM	No	44.9	51	47.1	42
		49.6			

Location: R5
Date: 10/1/2019

Time	Overload	Leq	Lmax	L10	L90
11:02:38 AM	No	51.4	60.6	55.7	41.6
11:03:38 AM	No	44.4	53.7	47.7	41.6
11:04:38 AM	No	45.1	51.9	49.1	41.6
11:05:38 AM	No	52.1	64.1	55.2	41.6
11:06:38 AM	No	61.3	75.8	60.8	41.6
11:07:38 AM	No	43.1	51.3	44.9	41.6
11:08:38 AM	No	56.3	67.6	60.5	44.1
11:09:38 AM	No	48.4	56	51.5	41.6
11:10:38 AM	No	46.7	51.7	50.2	41.6
11:11:38 AM	No	46.5	52.4	50.1	41.6
11:12:38 AM	No	54.9	60.5	58.7	47.7
11:13:38 AM	No	53	63.3	58.2	42.3
11:14:38 AM	No	45.6	53.3	49.3	41.6
11:15:38 AM	No	41.9	48.1	41.6	41.6
11:16:38 AM	No	47.8	54.2	51.5	41.6

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Time	Overload	Leq	Lmax	L10	L90
4:55:24 PM	No	50.9	57.8	53.3	47.8
4:56:24 PM	No	50.4	53.3	52.2	48.2
4:57:24 PM	No	49.3	55.3	52.8	45.1
4:58:24 PM	No	53.2	60.6	57	48.2
4:59:24 PM	No	47.5	53	50.5	43.7
5:00:24 PM	No	47.7	53.9	50.5	41.8
5:01:24 PM	No	56.2	64.5	61.4	41.7
5:02:24 PM	No	49.7	56.3	53	41.6
5:03:24 PM	No	46.9	56.5	50.7	41.6
5:04:24 PM	No	48.4	58.6	51.2	41.6
5:05:24 PM	No	46.9	52.9	49.7	41.6
5:06:24 PM	No	48.4	55.7	51.7	41.6
5:07:24 PM	No	47	51.8	49.6	42.9
5:08:24 PM	No	48.6	56.4	51.7	42.9
5:09:24 PM	No	50.5	58.6	53.1	45.8

50.3

Construction Noise & Vibration Calculations

Project: Mirman School Project

Construction Phase: *Demolition*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Excavators	1	81	40%	205	5
Air Compressor	1	78	40%	205	5
Water Truck	1	82	10%	225	5
Tractors/Loaders/Backhoes	1	79	40%	225	5
Concrete/Industrial Saw	1	90	20%	245	5
Air Compressor	1	78	40%	245	5
Concrete/Industrial Saw	1	90	20%	265	5
Pumps	1	81	50%	265	5

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Receptor: ***R1***

Results:

1-hour Leq: 69.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Excavation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Graders	1	85	40%	205	5
Water Truck	1	82	10%	205	5
Rollers	1	80	20%	225	5
Rubber Tired Loader	1	79	40%	225	5
Tractors/Loaders/Backhoes	1	84	40%	245	5
Excavators	1	81	40%	245	5
Pumps	1	81	50%	265	5

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Receptor: ***R1***

Results:

1-hour Leq: 67.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement/Mortar Mixers	1	79	40%	205	5
Plate Compactors	1	83	20%	205	5
Pumps	1	81	50%	225	5
Tractors/Loaders/Backhoes	1	84	40%	225	5
Welder	1	74	40%	245	5
Air Compressor	1	78	40%	245	5
Concrete/Industrial Saws	1	90	20%	265	5
Rubber Tired Loader	1	79	40%	265	5

8

Receptor: ***R1***

Results:

1-hour Leq: 68.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Tractors/Loaders/Backhoes	1	84	40%	205	5
Crane (Mobile)	1	81	16%	205	5
Aerial Lifts	1	75	20%	225	5
Cement/Mortar Mixers	1	79	40%	225	5
Generator Sets	1	81	50%	245	5
Welders	1	74	40%	245	5
Rough Terrain Forklifts	1	83	40%	265	5
Pumps	1	81	50%	265	5
Air Compressor	1	78	40%	285	5
Aerial Lifts	1	75	20%	285	5
Air Compressor	1	78	40%	305	5
Forklifts	1	75	20%	305	5
Rubber Tired Loader	1	79	40%	325	5

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Receptor: *R1*

Results:

1-hour Leq: 68.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Paving/ Landscape*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	205	5
Paving Equipment	1	77	50%	205	5
Rollers	1	80	20%	225	5
Rubber Tired Loaders	1	79	40%	225	5
Skid Steer Loaders	1	79	40%	245	5
Surfacing Equipment	1	85	50%	245	5
Trenchers	1	80	50%	265	5
Cement/Mortar Mixers	1	79	40%	265	5
Air Compressor	1	78	40%	285	5
Skid Steer Loaders	1	79	40%	285	5
Concrete/Industrial Saws	1	90	20%	305	5

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Receptor: ***R1***

Results:
1-hour Leq: 68.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

**Construction Phase: *Building Construction*
*Entrance Pavilion and Electrical Service Enclosure***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Tractors/Loaders/Backhoes	1	79	40%	605	10
Welders	1	74	40%	605	10
Air Compressor	1	78	40%	625	10
Generator Sets	1	81	50%	625	10
Rough Terrain Forklifts	1	83	40%	645	10

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Receptor: ***R1***

Results:
1-hour Leq: 51.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Demolition*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Excavators	1	81	40%	780	15
Air Compressor	1	78	40%	780	15
Water Truck	1	82	10%	800	15
Tractors/Loaders/Backhoes	1	79	40%	800	15
Concrete/Industrial Saw	1	90	20%	820	15
Air Compressor	1	78	40%	820	15
Concrete/Industrial Saw	1	90	20%	840	15
Pumps	1	81	50%	840	15

8

Receptor: ***R2***

Results:

1-hour Leq: 48.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Excavation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Graders	1	85	40%	780	15
Water Truck	1	82	10%	780	15
Rollers	1	80	20%	800	15
Rubber Tired Loader	1	79	40%	800	15
Tractors/Loaders/Backhoes	1	84	40%	820	15
Excavators	1	81	40%	820	15
Pumps	1	81	50%	840	15

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Receptor: **R2**

Results:
1-hour Leq: 47.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement/Mortar Mixers	1	79	40%	780	15
Plate Compactors	1	83	20%	780	15
Pumps	1	81	50%	800	15
Tractors/Loaders/Backhoes	1	84	40%	800	15
Welder	1	74	40%	820	15
Air Compressor	1	78	40%	820	15
Concrete/Industrial Saws	1	90	20%	840	15
Rubber Tired Loader	1	79	40%	840	15

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Receptor: ***R2***

Results:

1-hour Leq: 47.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Tractors/Loaders/Backhoes	1	84	40%	780	15
Crane (Mobile)	1	81	16%	780	15
Aerial Lifts	1	75	20%	800	15
Cement/Mortar Mixers	1	79	40%	800	15
Generator Sets	1	81	50%	820	15
Welders	1	74	40%	820	15
Rough Terrain Forklifts	1	83	40%	840	15
Pumps	1	81	50%	840	15
Air Compressor	1	78	40%	860	15
Aerial Lifts	1	75	20%	860	15
Air Compressor	1	78	40%	880	15
Forklifts	1	75	20%	880	15
Rubber Tired Loader	1	79	40%	900	15

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Receptor: *R2*

Results:

1-hour Leq: 47.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Paving/ Landscape*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	780	15
Paving Equipment	1	77	50%	780	15
Rollers	1	80	20%	800	15
Rubber Tired Loaders	1	79	40%	800	15
Skid Steer Loaders	1	79	40%	820	15
Surfacing Equipment	1	85	50%	820	15
Trenchers	1	80	50%	840	15
Cement/Mortar Mixers	1	79	40%	840	15
Air Compressor	1	78	40%	860	15
Skid Steer Loaders	1	79	40%	860	15
Concrete/Industrial Saws	1	90	20%	880	15

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Receptor: R2

Results:

1-hour Leq: 48.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

**Construction Phase: *Building Construction*
*Entrance Pavilion and Electrical Service Enclosure***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Tractors/Loaders/Backhoes	1	79	40%	715	15
Welders	1	74	40%	715	15
Air Compressor	1	78	40%	735	15
Generator Sets	1	81	50%	735	15
Rough Terrain Forklifts	1	83	40%	755	15

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Receptor: R2

Results:
1-hour Leq: 44.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Demolition*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Excavators	1	81	40%	500	0
Air Compressor	1	78	40%	500	0
Water Truck	1	82	10%	520	0
Tractors/Loaders/Backhoes	1	79	40%	520	0
Concrete/Industrial Saw	1	90	20%	540	0
Air Compressor	1	78	40%	540	0
Concrete/Industrial Saw	1	90	20%	560	0
Pumps	1	81	50%	560	0

8

Receptor: ***R3***

Results:

1-hour Leq: 67.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Excavation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Graders	1	85	40%	500	0
Water Truck	1	82	10%	500	0
Rollers	1	80	20%	520	0
Rubber Tired Loader	1	79	40%	520	0
Tractors/Loaders/Backhoes	1	84	40%	540	0
Excavators	1	81	40%	540	0
Pumps	1	81	50%	560	0

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Receptor: ***R3***

Results:

1-hour Leq: 65.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement/Mortar Mixers	1	79	40%	500	0
Plate Compactors	1	83	20%	500	0
Pumps	1	81	50%	520	0
Tractors/Loaders/Backhoes	1	84	40%	520	0
Welder	1	74	40%	540	0
Air Compressor	1	78	40%	540	0
Concrete/Industrial Saws	1	90	20%	560	0
Rubber Tired Loader	1	79	40%	560	0

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Receptor: ***R3***

Results:

1-hour Leq: 66.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Tractors/Loaders/Backhoes	1	84	40%	500	0
Crane (Mobile)	1	81	16%	500	0
Aerial Lifts	1	75	20%	520	0
Cement/Mortar Mixers	1	79	40%	520	0
Generator Sets	1	81	50%	540	0
Welders	1	74	40%	540	0
Rough Terrain Forklifts	1	83	40%	560	0
Pumps	1	81	50%	560	0
Air Compressor	1	78	40%	580	0
Aerial Lifts	1	75	20%	580	0
Air Compressor	1	78	40%	600	0
Forklifts	1	75	20%	600	0
Rubber Tired Loader	1	79	40%	620	0

13

Receptor: *R3*

Results:

1-hour Leq: 66.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Paving/ Landscape*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	500	0
Paving Equipment	1	77	50%	500	0
Rollers	1	80	20%	520	0
Rubber Tired Loaders	1	79	40%	520	0
Skid Steer Loaders	1	79	40%	540	0
Surfacing Equipment	1	85	50%	540	0
Trenchers	1	80	50%	560	0
Cement/Mortar Mixers	1	79	40%	560	0
Air Compressor	1	78	40%	580	0
Skid Steer Loaders	1	79	40%	580	0
Concrete/Industrial Saws	1	90	20%	600	0

11

Receptor: R3

Results:

1-hour Leq: 67.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

**Construction Phase: *Building Construction*
*Entrance Pavilion and Electrical Service Enclosure***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Tractors/Loaders/Backhoes	1	79	40%	270	0
Welders	1	74	40%	270	0
Air Compressor	1	78	40%	290	0
Generator Sets	1	81	50%	290	0
Rough Terrain Forklifts	1	83	40%	310	0

5

Receptor: R3

Results:
1-hour Leq: 67.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Demolition*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Excavators	1	81	40%	280	0
Air Compressor	1	78	40%	280	0
Water Truck	1	82	10%	300	0
Tractors/Loaders/Backhoes	1	79	40%	300	0
Concrete/Industrial Saw	1	90	20%	320	0
Air Compressor	1	78	40%	320	0
Concrete/Industrial Saw	1	90	20%	340	0
Pumps	1	81	50%	340	0

8

Receptor: ***R4***

Results:

1-hour Leq: 71.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Excavation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Graders	1	85	40%	280	0
Water Truck	1	82	10%	280	0
Rollers	1	80	20%	300	0
Rubber Tired Loader	1	79	40%	300	0
Tractors/Loaders/Backhoes	1	84	40%	320	0
Excavators	1	81	40%	320	0
Pumps	1	81	50%	340	0

7

Receptor: ***R4***

Results:

1-hour Leq: 70.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement/Mortar Mixers	1	79	40%	280	0
Plate Compactors	1	83	20%	280	0
Pumps	1	81	50%	300	0
Tractors/Loaders/Backhoes	1	84	40%	300	0
Welder	1	74	40%	320	0
Air Compressor	1	78	40%	320	0
Concrete/Industrial Saws	1	90	20%	340	0
Rubber Tired Loader	1	79	40%	340	0

8

Receptor: ***R4***

Results:

1-hour Leq: 71.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Tractors/Loaders/Backhoes	1	84	40%	280	0
Crane (Mobile)	1	81	16%	280	0
Aerial Lifts	1	75	20%	300	0
Cement/Mortar Mixers	1	79	40%	300	0
Generator Sets	1	81	50%	320	0
Welders	1	74	40%	320	0
Rough Terrain Forklifts	1	83	40%	340	0
Pumps	1	81	50%	340	0
Air Compressor	1	78	40%	360	0
Aerial Lifts	1	75	20%	360	0
Air Compressor	1	78	40%	380	0
Forklifts	1	75	20%	380	0
Rubber Tired Loader	1	79	40%	400	0

13

Receptor: *R4*

Results:

1-hour Leq: 70.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Paving/ Landscape*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	280	0
Paving Equipment	1	77	50%	280	0
Rollers	1	80	20%	300	0
Rubber Tired Loaders	1	79	40%	300	0
Skid Steer Loaders	1	79	40%	320	0
Surfacing Equipment	1	85	50%	320	0
Trenchers	1	80	50%	340	0
Cement/Mortar Mixers	1	79	40%	340	0
Air Compressor	1	78	40%	360	0
Skid Steer Loaders	1	79	40%	360	0
Concrete/Industrial Saws	1	90	20%	380	0

11

Receptor: *R4*

Results:

1-hour Leq: 71.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

**Construction Phase: *Building Construction*
*Entrance Pavilion and Electrical Service Enclosure***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Tractors/Loaders/Backhoes	1	79	40%	175	0
Welders	1	74	40%	175	0
Air Compressor	1	78	40%	195	0
Generator Sets	1	81	50%	195	0
Rough Terrain Forklifts	1	83	40%	215	0

5

Receptor: ***R4***

Results:
1-hour Leq: 71.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Demolition*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Excavators	1	81	40%	940	0
Air Compressor	1	78	40%	940	0
Water Truck	1	82	10%	960	0
Tractors/Loaders/Backhoes	1	79	40%	960	0
Concrete/Industrial Saw	1	90	20%	980	0
Air Compressor	1	78	40%	980	0
Concrete/Industrial Saw	1	90	20%	1000	0
Pumps	1	81	50%	1000	0

8

Receptor: ***R5***

Results:

1-hour Leq: 62.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Excavation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Graders	1	85	40%	940	0
Water Truck	1	82	10%	940	0
Rollers	1	80	20%	960	0
Rubber Tired Loader	1	79	40%	960	0
Tractors/Loaders/Backhoes	1	84	40%	980	0
Excavators	1	81	40%	980	0
Pumps	1	81	50%	1000	0

7

Receptor: ***R5***

Results:
1-hour Leq: 60.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement/Mortar Mixers	1	79	40%	940	0
Plate Compactors	1	83	20%	940	0
Pumps	1	81	50%	960	0
Tractors/Loaders/Backhoes	1	84	40%	960	0
Welder	1	74	40%	980	0
Air Compressor	1	78	40%	980	0
Concrete/Industrial Saws	1	90	20%	1000	0
Rubber Tired Loader	1	79	40%	1000	0

8

Receptor: ***R5***

Results:

1-hour Leq: 61.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Tractors/Loaders/Backhoes	1	84	40%	940	0
Crane (Mobile)	1	81	16%	940	0
Aerial Lifts	1	75	20%	960	0
Cement/Mortar Mixers	1	79	40%	960	0
Generator Sets	1	81	50%	980	0
Welders	1	74	40%	980	0
Rough Terrain Forklifts	1	83	40%	1000	0
Pumps	1	81	50%	1000	0
Air Compressor	1	78	40%	1020	0
Aerial Lifts	1	75	20%	1020	0
Air Compressor	1	78	40%	1040	0
Forklifts	1	75	20%	1040	0
Rubber Tired Loader	1	79	40%	1060	0

13

Receptor: *R5*

Results:

1-hour Leq: 60.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

Construction Phase: *Paving/ Landscape*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	940	0
Paving Equipment	1	77	50%	940	0
Rollers	1	80	20%	960	0
Rubber Tired Loaders	1	79	40%	960	0
Skid Steer Loaders	1	79	40%	980	0
Surfacing Equipment	1	85	50%	980	0
Trenchers	1	80	50%	1000	0
Cement/Mortar Mixers	1	79	40%	1000	0
Air Compressor	1	78	40%	1020	0
Skid Steer Loaders	1	79	40%	1020	0
Concrete/Industrial Saws	1	90	20%	1040	0

11

Receptor: *R5*

Results:

1-hour Leq: 62.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Project: Mirman School Project

**Construction Phase: *Building Construction*
*Entrance Pavilion and Electrical Service Enclosure***

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Tractors/Loaders/Backhoes	1	79	40%	900	0
Welders	1	74	40%	900	0
Air Compressor	1	78	40%	920	0
Generator Sets	1	81	50%	920	0
Rough Terrain Forklifts	1	83	40%	940	0

5

Receptor: ***R5***

Results:
1-hour Leq: 57.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

INPUT: ROADWAYS
Mirman School Project

Eyestone Environmental Sean Bui						22 July 2021 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:	Mirman School Project										
RUN:	Grading Phase										
Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control	Speed	Percent	Pvmt	On
							Device	Constraint	Vehicles	Type	Struct?
									Affected		
	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
Mirman School Project

Eyestone Environmental				22 July 2021								
Sean Bui				TNM 2.5								
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:	Mirman School Project											
RUN:	Grading Phase											
Roadway	Points											
Name	Name	No.	Segment									
			Autos		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	8	35	0	0	9	35	0	0	0	0
	point2	2										

INPUT: RECEIVERS
Mirman School Project

Eyestone Environmental						22 July 2021					
Sean Bui						TNM 2.5					
INPUT: RECEIVERS											
PROJECT/CONTRACT:			Mirman School Project								
RUN:			Grading Phase								
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.

RESULTS: SOUND LEVELS
Mirman School Project

Eyestone Environmental												
Sean Bui												
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:												
RUN:												
BARRIER DESIGN:												
ATMOSPHERICS:												
Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
At Milikan School along Mulholland Dr.	1	1	0.0	57.6	71	57.6	5	----	57.6	0.0	0	0.0
At Receptor R3	10	1	0.0	54.0	66	54.0	10	----	54.0	0.0	8	-8.0
At Receptor R4	11	1	0.0	58.1	66	58.1	10	----	58.1	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

Project Composite Noise Calculations (CNEL)

Project: Mirman School Project

Receptor	Ambient	Traffic ^a	Mechanical	Outdoor	Parking		Project Composite	Ambient + Project	Increase
R1	55.3	41.5	41.8	40.4	18.7		46.1	55.8	0.5
R2	57.0	29.6	15.6	14.4	10.8		29.9	57.1	0.1
R3	67.6	50.0	31.2	28.1	31.6		50.1	67.7	0.1
R4	54.6	46.3	31.2	24.4	36.0		46.9	55.2	0.6
R5	55.6	42.7	26.1	22.9	18.0		42.8	55.9	0.3

^a - Project traffic noise levels at each receptor is based on the traffic noise analysis for the roadway segment in front of the receptor, adjusted for distance and barrier (if present), as provided in the table below.

Receptor	Roadway Segment	Traffic Noise Levels, CNEL			distance to roadway, ft	Project Only at 10ft	barrier	distance to Center Line	adj. for distance
				Project Only					
R1	Mulholland			41.5	650	55.0	0	30	-13.5
R2	Mulholland			29.6	310	55.0	15	30	-10.4
R3	Mulholland			50.0	75	55.0	0	30	-5.0
R4	Mulholland			46.3	200	55.0	0	30	-8.7
R5	Mulholland			42.7	490	55.0	0	30	-12.3

Outdoor Mechanical Equipment Noise Calculations

Project: Mirman School Project

		Hours of Operations			
Estimated Noise Levels, Leq from SOUNDPLAN		Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)	
Receptor	Leq	CNEL	12	3	0
R1	42.3	41.8	42.3	42.3	0.0
R2	15.6	15.6	15.6	15.6	0.0
R3	31.7	31.2	31.7	31.7	0.0
R4	31.7	31.2	31.7	31.7	0.0
R5	26.5	26.1	26.5	26.5	0.0

Receptor	Ambient CNEL	Ambient + Project (CNEL)	Increase (CNEL)	ambient (Leq)	Ambient + Project (Leq)
R1	55.3	55.5	0.2	50.0	50.7
R2	57.0	57.0	0.0	49.9	49.9
R3	67.6	67.6	0.0	59.9	59.9
R4	54.6	54.6	0.0	49.6	49.7
R5	55.6	55.6	0.0	50.3	50.3

Outdoor Noise Calculations

Project: Mirman School Project

					Hours of Operations		
Estimated noise levels, Leq (FROM SOUNDPLAN)					Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
Receptor		Occupants	Total, Leq	CNEL	12	0	0
R1		43.4	43.4	40.4	43.4	0.0	0.0
R2		16.6	16.7	14.4	16.7	0.0	0.0
R3		31.1	31.1	28.1	31.1	0.0	0.0
R4		27.3	27.3	24.4	27.3	0.0	0.0
R5		25.8	25.8	22.9	25.8	0.0	0.0

Receptor	Project (CNEL)	Ambient (CNEL)	Ambient + Project (CNEL)	Increase (CNEL)	Project Noise, (Leq)	Ambient (Leq)	Ambient + Project (Leq)
R1	40.4	55.3	55.5	0.1	43.4	50.0	50.9
R2	14.4	57.0	57.0	0.0	16.7	49.9	49.9
R3	28.1	67.6	67.6	0.0	31.1	59.9	59.9
R4	24.4	54.6	54.6	0.0	27.3	49.6	49.6
R5	22.9	55.6	55.6	0.0	25.8	50.3	50.3

Parking Lot Noise Calculations

Project: Mirman School Project

		Hours of Operations			
Estimated Noise Levels, Leq from SOUNDPLAN		Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)	
Receptor	Leq	CNEL			
R1	21.4	18.7	18.4	19.6	0.0
R2	12.0	10.8	9.0	10.2	0.0
R3	34.5	31.6	31.5	32.7	0.0
R4	38.9	36.0	35.9	37.1	0.0
R5	20.6	18.0	17.6	18.8	0.0

Receptor	Ambient CNEL	Ambient + Project (CNEL)	Increase (CNEL)	nighttime ambient (Leq)	Ambient + Project (Leq)	Increase (Leq)
R1	55.3	55.3	0.0	50.0	50.0	0.0
R2	57.0	57.0	0.0	49.9	49.9	0.0
R3	67.6	67.6	0.0	59.9	59.9	0.0
R4	54.6	54.6	0.1	49.6	50.0	0.4

Mirman School
Source Levels in dB(A) - Mechanical

3

Name	Source type	Lw dB(A)	
Mechanical 1	Point	85.0	
Mechanical 2	Point	85.0	
Mechanical 3	Point	85.0	
Mechanical 4	Point	85.0	
Mechanical 5	Point	85.0	
Mechanical 6	Point	85.0	
Mechanical 7	Point	85.0	
Mechanical 8	Point	85.0	
Mechanical 9	Point	85.0	
Mechanical 10	Point	85.0	
Mechanical 11	Point	85.0	
Mechanical 12	Point	85.0	
Mechanical 13	Point	85.0	

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Mirman School
Assessed contribution level - Mechanical

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Source	Source type	Leq dB(A)	
Receiver R1 Leq,d 42.3 dB(A)			
Mechanical 1	Point	38.3	
Mechanical 2	Point	38.4	
Mechanical 3	Point	38.6	
Mechanical 4	Point	38.5	
Mechanical 5	Point	38.7	
Mechanical 6	Point	38.8	
Mechanical 7	Point	38.9	
Mechanical 8	Point	39.0	
Mechanical 9	Point	39.1	
Mechanical 10	Point	34.4	
Mechanical 11	Point	34.7	
Mechanical 12	Point	34.9	
Mechanical 13	Point	35.0	
Receiver R2 Leq,d 15.6 dB(A)			
Mechanical 1	Point	10.7	
Mechanical 2	Point	10.7	
Mechanical 3	Point	10.6	
Mechanical 4	Point	10.6	
Mechanical 5	Point	10.6	
Mechanical 6	Point	10.5	
Mechanical 7	Point	10.5	
Mechanical 8	Point	10.5	
Mechanical 9	Point	10.4	
Mechanical 10	Point	12.6	
Mechanical 11	Point	12.4	
Mechanical 12	Point	12.3	
Mechanical 13	Point	11.4	
Receiver R3 Leq,d 31.7 dB(A)			
Mechanical 1	Point	25.0	
Mechanical 2	Point	25.0	
Mechanical 3	Point	24.9	
Mechanical 4	Point	24.9	
Mechanical 5	Point	24.8	
Mechanical 6	Point	24.8	
Mechanical 7	Point	24.8	
Mechanical 8	Point	24.8	
Mechanical 9	Point	24.8	
Mechanical 10	Point	30.3	
Mechanical 11	Point	30.1	
Mechanical 12	Point	30.0	
Mechanical 13	Point	29.8	
Receiver R4 Leq,d 31.7 dB(A)			

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Mirman School
Assessed contribution level - Mechanical

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Source	Source type	Leq dB(A)	
Mechanical 1	Point	24.5	
Mechanical 2	Point	24.6	
Mechanical 3	Point	24.7	
Mechanical 4	Point	24.4	
Mechanical 5	Point	24.4	
Mechanical 6	Point	24.5	
Mechanical 7	Point	24.5	
Mechanical 8	Point	24.6	
Mechanical 9	Point	24.8	
Mechanical 10	Point	30.6	
Mechanical 11	Point	30.4	
Mechanical 12	Point	30.1	
Mechanical 13	Point	30.0	

Receiver R5 Leq,d 26.5 dB(A)

Mechanical 1	Point	20.7	
Mechanical 2	Point	21.0	
Mechanical 3	Point	21.6	
Mechanical 4	Point	20.7	
Mechanical 5	Point	21.0	
Mechanical 6	Point	21.4	
Mechanical 7	Point	22.0	
Mechanical 8	Point	22.2	
Mechanical 9	Point	22.2	
Mechanical 10	Point	23.2	
Mechanical 11	Point	23.2	
Mechanical 12	Point	23.2	
Mechanical 13	Point	23.1	

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Mirman School
Source Levels in dB(A) - Courtyard

3

Name	Source type	Lw dB(A)	
Courtyard 1	Area	87.9	
Courtyard 2	Area	92.4	
Courtyard 3	Area	92.3	
Courtyard 4	Area	92.2	

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Mirman School
Assessed contribution level - Courtyard

9

Source	Source type	Leq dB(A)	
Receiver R1 Leq,d 43.4 dB(A)			
Courtyard 1	Area	25.3	
Courtyard 4	Area	41.6	
Courtyard 2	Area	29.1	
Courtyard 3	Area	38.0	
Receiver R2 Leq,d 16.6 dB(A)			
Courtyard 1	Area	7.8	
Courtyard 4	Area	6.9	
Courtyard 2	Area	13.1	
Courtyard 3	Area	11.5	
Receiver R3 Leq,d 31.1 dB(A)			
Courtyard 1	Area	24.6	
Courtyard 4	Area	21.3	
Courtyard 2	Area	26.1	
Courtyard 3	Area	26.5	
Receiver R4 Leq,d 27.3 dB(A)			
Courtyard 1	Area	21.5	
Courtyard 4	Area	22.1	
Courtyard 2	Area	18.6	
Courtyard 3	Area	22.0	
Receiver R5 Leq,d 25.8 dB(A)			
Courtyard 1	Area	18.3	
Courtyard 4	Area	23.7	
Courtyard 2	Area	11.4	
Courtyard 3	Area	18.4	

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Mirman School
Input data parking lots - Parking

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Parking lot	PLT	Parking Space	
Parking Lot	Visitors and staff	42	

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Mirman School
Assessed contribution level - Parking

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Source	Source type	Leq,d dB(A)	
Receiver R1 Leq,d 21.4 dB(A)			
Parking Lot	PLot	21.4	
Receiver R2 Leq,d 12.0 dB(A)			
Parking Lot	PLot	12.0	
Receiver R3 Leq,d 34.5 dB(A)			
Parking Lot	PLot	34.5	
Receiver R4 Leq,d 38.9 dB(A)			
Parking Lot	PLot	38.9	
Receiver R5 Leq,d 20.6 dB(A)			
Parking Lot	PLot	20.6	

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Off-Site Traffic Noise Calculations
Project: Mirman School 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
10%

EXISTING CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Hayvenhurst Avenue										
- Between Magnolia and Venture Blvd	60	10	40	35	2,098	20,980	10%	0	0	72.1
- Between Ventura Blvd and Libbi Ave	30	10	25	35	935	9,350	10%	0	0	70.8
Sepulveda Avenue										
- Between Greanleaf St and Valley Vista Blvd	70	10	45	35	1,856	18,560	10%	0	0	71.0
- Between Valley Vista Blvd and Fiume Walk	80	10	50	35	2,570	25,700	10%	0	0	72.0
- Between Fiume Walk and Sherman Oaks Ave	70	10	45	35	2,504	25,040	10%	0	0	72.3
- Between Skirball Center Drive and Dartford Way	50	10	35	35	2,222	22,220	10%	0	0	72.9
Main Driveway										
- South of Mulholland Dr.	30	75	90	25	306	3,060	10%	0	0	60.3
Mulholland Drive										
- Between Calneva Drive and Main Driveway	30	10	25	35	1,146	11,460	10%	0	0	71.6
- Between Main Driveway & Walt Disney Drive	40	10	30	35	1,461	14,610	10%	0	0	71.9
- Between Walt Disney Drive and Skirball Center	50	10	35	35	1,653	16,530	10%	0	0	71.6
- Between Skirball Center Drive and Casiano Roa	50	10	35	35	1,334	13,340	10%	0	0	70.7

* Estimated based on Google Earth map.

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

Off-Site Traffic Noise Calculations

Project: Mirman School 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
10%

EXISTING + PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Hayvenhurst Avenue										
- Between Magnolia and Venture Blvd	60	10	40	35	2,103	21,030	10%	0	0	72.1
- Between Ventura Blvd and Libbi Ave	30	10	25	35	948	9,480	10%	0	0	70.8
Sepulveda Avenue										
- Between Greanleaf St and Valley Vista Blvd	70	10	45	35	1,860	18,600	10%	0	0	71.1
- Between Valley Vista Blvd and Fiume Walk	80	10	50	35	2,575	25,750	10%	0	0	72.0
- Between Fiume Walk and Sherman Oaks Ave	70	10	45	35	2,511	25,110	10%	0	0	72.4
- Between Skirball Center Drive and Dartford Way	50	10	35	35	2,228	22,280	10%	0	0	72.9
Main Driveway										
- South of Mulholland Dr.	30	75	90	35	353	3,530	10%	0	0	60.8
Mulholland Drive										
- Between Calneva Drive and Main Driveway	30	10	25	35	1,158	11,580	10%	0	0	71.7
- Between Main Driveway & Walt Disney Drive	40	10	30	35	1,503	15,030	10%	0	0	72.0
- Between Walt Disney Drive and Skirball Center	50	10	35	35	1,699	16,990	10%	0	0	71.8
- Between Skirball Center Drive and Casiano Roa	50	10	35	35	1,344	13,440	10%	0	0	70.7

* Estimated based on Google Earth map.

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

Off-Site Traffic Noise Calculations
Project: Mirman School 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
10%

FUTURE NO PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Hayvenhurst Avenue										
- Between Magnolia and Venture Blvd	60	10	40	35	2,276	22,760	10%	0	0	72.4
- Between Ventura Blvd and Libbi Ave	30	10	25	35	1,052	10,520	10%	0	0	71.3
Sepulveda Avenue										
- Between Greanleaf St and Valley Vista Blvd	70	10	45	35	1,999	19,990	10%	0	0	71.4
- Between Valley Vista Blvd and Fiume Walk	80	10	50	35	2,757	27,570	10%	0	0	72.3
- Between Fiume Walk and Sherman Oaks Ave	70	10	45	35	2,700	27,000	10%	0	0	72.7
- Between Skirball Center Drive and Dartford Way	50	10	35	35	2,408	24,080	10%	0	0	73.3
Main Driveway										
- South of Mulholland Dr.	30	75	90	35	325	3,250	10%	0	0	60.5
Mulholland Drive										
- Between Calneva Drive and Main Driveway	30	10	25	35	1,247	12,470	10%	0	0	72.0
- Between Main Driveway & Walt Disney Drive	40	10	30	35	1,581	15,810	10%	0	0	72.2
- Between Walt Disney Drive and Skirball Center	50	10	35	35	1,786	17,860	10%	0	0	72.0
- Between Skirball Center Drive and Casiano Roa	50	10	35	35	1,550	15,500	10%	0	0	71.4

* Estimated based on Google Earth map.

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

Off-Site Traffic Noise Calculations

Project: Mirman School 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
10%

FUTURE + PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Hayvenhurst Avenue										
- Between Magnolia and Venture Blvd	60	10	40	35	2,281	22,810	10%	0	0	72.4
- Between Ventura Blvd and Libbi Ave	30	10	25	35	1,064	10,640	10%	0	0	71.3
Sepulveda Avenue										
- Between Greanleaf St and Valley Vista Blvd	70	10	45	35	2,003	20,030	10%	0	0	71.4
- Between Valley Vista Blvd and Fiume Walk	80	10	50	35	2,762	27,620	10%	0	0	72.3
- Between Fiume Walk and Sherman Oaks Ave	70	10	45	35	2,706	27,060	10%	0	0	72.7
- Between Skirball Center Drive and Dartford Way	50	10	35	35	2,414	24,140	10%	0	0	73.3
Main Driveway										
- South of Mulholland Dr.	30	75	90	35	372	3,720	10%	0	0	61.1
Mulholland Drive										
- Between Calneva Drive and Main Driveway	30	10	25	35	1,259	12,590	10%	0	0	72.1
- Between Main Driveway & Walt Disney Drive	40	10	30	35	1,624	16,240	10%	0	0	72.4
- Between Walt Disney Drive and Skirball Center	50	10	35	35	1,832	18,320	10%	0	0	72.1
- Between Skirball Center Drive and Casiano Roa	50	10	35	35	1,560	15,600	10%	0	0	71.4

* Estimated based on Google Earth map.

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