Appendix L

Noise Calculation Worksheets

1360 Vine Project

Noise Calculations Worksheets

Provided by Acoustical Engineering Services

Ambient Noise Measurements

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R1 -
Date: 4/11/2018

Time	Overload	Leq	Lmax	L10	L90
10:45:44 AM	No	55.2	62.1	58.3	51.3
10:46:44 AM	No	55.7	61.2	58.8	51.2
10:47:44 AM	No	54.6	60.3	57.3	52.1
10:48:44 AM	No	54.6	62.8	57.4	50.9
10:49:44 AM	No	54	60.4	56.9	50.7
10:50:44 AM	No	54.8	58.9	57.3	51.6
10:51:44 AM	No	55.2	58.3	56.8	53.2
10:52:44 AM	No	56.5	64.5	58.8	50.7
10:53:44 AM	No	54.6	63.8	56.1	50.9
10:54:44 AM	No	52.3	59.8	53.8	49.3
10:55:44 AM	No	53.1	56.4	54.8	50.8
10:56:44 AM	No	55.9	67.8	57.9	51.3
10:57:44 AM	No	57.6	69.2	59.2	50.2
10:58:44 AM	No	53	56.7	55.2	50.1
10:59:44 AM	No	54	61.9	55.7	50.5
		55.0			

Time	Overload	Leq	Lmax	L10	L90
9:59:19 PM	No	56.3	62.6	60.4	50.8
10:00:19 PM	No	50	57.5	51.9	46.1
10:01:19 PM	No	50.4	54.5	51.9	47.9
10:02:19 PM	No	61	65.5	64.6	51.4
10:03:19 PM	No	53.1	59.1	56.4	46.3
10:04:19 PM	No	50.5	57.2	53.2	46
10:05:19 PM	No	49.9	53.6	52.5	46.7
10:06:19 PM	No	52.4	62.6	55.4	45.6
10:07:19 PM	No	49.9	56.1	52.9	45.8
10:08:19 PM	No	51.5	59.2	55.2	45
10:09:19 PM	No	52.9	60.1	57	44.6
10:10:19 PM	No	48.2	52	50	45.6
10:11:19 PM	No	49.1	52.2	51	46.5
10:12:19 PM	No	50.1	57	52.9	46.4
10:13:19 PM	No	50.1	54.3	52.8	46.1
		53.4			

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R2 -
Date: 4/11/2018

Time	Overload	Leq	Lmax	L10	L90
11:05:42 AM	No	54.4	59.5	56.6	52.1
11:06:42 AM	No	54.7	58.6	56.7	52.8
11:07:42 AM	No	55	59.8	57.5	51.7
11:08:42 AM	No	56	58.5	57	54.2
11:09:42 AM	No	54.4	56.3	55.6	52.9
11:10:42 AM	No	53.7	57.2	55.2	52
11:11:42 AM	No	52.3	55.6	53.2	51.5
11:12:42 AM	No	52.4	59.6	53.5	50.7
11:13:42 AM	No	62.4	68.5	67.4	51.9
11:14:42 AM	No	57.5	65	60.1	54.6
11:15:42 AM	No	56.5	65.1	58.2	54.5
11:16:42 AM	No	55.4	64.1	57.3	52.4
11:17:42 AM	No	52.2	56.3	54.1	49.9
11:18:42 AM	No	51.5	54.3	53.3	49.6
11:19:42 AM	No	52.2	55.7	54.2	49.5
		55.8			

Time	Overload	Leq	Lmax	L10	L90
10:20:47 PM	No	53.6	58.6	55.4	49.6
10:21:47 PM	No	49.4	54.9	51.5	47.4
10:22:47 PM	No	48.9	57.3	50.2	47.6
10:23:47 PM	No	47.8	51.7	48.8	47
10:24:47 PM	No	48.5	55.5	50.3	46.8
10:25:47 PM	No	47.6	55.3	48.3	46.7
10:26:47 PM	No	48.2	49.5	49.1	47
10:27:47 PM	No	49	53.4	49.7	48
10:28:47 PM	No	48.8	51.7	49.8	47.9
10:29:47 PM	No	48.8	56.8	49.2	47.7
10:30:47 PM	No	49.1	55.3	50.2	47.7
10:31:47 PM	No	48.7	53.3	50.1	47.4
10:32:47 PM	No	48.2	50.2	49.3	47.5
10:33:47 PM	No	49.4	55.8	50	47.7
10:34:47 PM	No	48.2	51.5	49	47.4
		49.2			

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R3
Date: 4/11/2018

Time	Overload	Leq	Lmax	L10	L90
11:32:14 AM	No	58.1	65	60.9	55.1
11:33:14 AM	No	59.9	62.9	61.6	58.3
11:34:14 AM	No	58.9	65.4	61.7	55.7
11:35:14 AM	No	60.4	68.6	64.1	56
11:36:14 AM	No	56.3	57.7	57.1	55.5
11:37:14 AM	No	58.2	67.3	58.9	55.6
11:38:14 AM	No	57.7	62.5	58.9	56.5
11:39:14 AM	No	58.3	64.1	59.7	56.8
11:40:14 AM	No	62.3	74.2	66.6	56.5
11:41:14 AM	No	60.5	68.2	63.7	56.7
11:42:14 AM	No	57.8	62.2	59.9	56.2
11:43:14 AM	No	57.5	62.6	59.9	55.7
11:44:14 AM	No	57.6	62.9	60.6	54.6
11:45:14 AM	No	58.6	63.5	61.9	55.7
11:46:14 AM	No	58.6	62.9	60.7	56.6
		59.0			

Time	Overload	Leq	Lmax	L10	L90
10:41:51 PM	No	61.2	68.7	63.6	55.9
10:42:51 PM	No	69.2	77	73.5	61.3
10:43:51 PM	No	71.2	83.7	73.8	53.7
10:44:51 PM	No	59.4	70.5	61	52.1
10:45:51 PM	No	53	57.6	54.4	51.7
10:46:51 PM	No	55.6	65.6	57.9	51.7
10:47:51 PM	No	53.3	56.9	54.3	52.3
10:48:51 PM	No	52.4	54.2	52.7	52
10:49:51 PM	No	56.4	66.4	58.5	52.1
10:50:51 PM	No	55.2	65.8	56.1	51.9
10:51:51 PM	No	59.4	67.2	64.2	52.7
10:52:51 PM	No	57.2	65.8	61.3	52.3
10:53:51 PM	No	53.2	58.7	54.4	51.7
10:54:51 PM	No	52.5	58.7	53.4	51.3
10:55:51 PM	No	56.2	63.1	60.3	52.2
		56.1			

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R4
Date: 4/11/2018

Time	Overload	Leq	Lmax	L10	L90
12:12:42 PM	No	68.9	78.1	74.4	59.6
12:13:42 PM	No	74.9	84.7	78.8	60.7
12:14:42 PM	No	69.5	79	73.2	61.2
12:15:42 PM	No	67.3	73.1	70.7	61.5
12:16:42 PM	No	72.8	79	76.5	67.5
12:17:42 PM	No	66.4	69.5	68.8	60.7
12:18:42 PM	No	65.6	72.2	68.6	60.6
12:19:42 PM	No	73.4	84.8	76.1	61.2
12:20:42 PM	No	71.1	78.4	75.3	64.2
12:21:42 PM	No	70.8	77.3	75.4	61.3
12:22:42 PM	No	70.2	77.6	74.4	62.8
12:23:42 PM	No	72	79.9	76.2	65.1
12:24:42 PM	No	67	71.7	70.3	61
12:25:42 PM	No	76.4	83.2	80.4	71.2
12:26:42 PM	No	73.4	81.5	77	65.1
		71.7			

Time	Overload	Leq	Lmax	L10	L90
11:21:27 PM	No	63.8	70.4	67.8	52.5
11:22:27 PM	No	66.4	73	72.2	56.5
11:23:27 PM	No	64.2	72.2	67.6	57.6
11:24:27 PM	No	64.3	71.6	68.9	54.1
11:25:27 PM	No	67.9	76.2	72	57.4
11:26:27 PM	No	62.4	68.3	66.7	53.1
11:27:27 PM	No	64.2	69.5	68.1	54
11:28:27 PM	No	68.1	73.9	72.8	53
11:29:27 PM	No	63.7	70.7	68.9	52.8
11:30:27 PM	No	63	69	66.8	56.5
11:31:27 PM	No	62.2	70.1	67.7	54.3
11:32:27 PM	No	67.2	75.9	70.9	55.4
11:33:27 PM	No	64.9	69.7	68.1	56.1
11:34:27 PM	No	65.3	74.6	68.3	55.5
11:35:27 PM	No	66.7	73.5	70.7	52.9
		65.4			

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R5
Date: 4/11/2018

Time	Overload	Leq	Lmax	L10	L90
11:52:39 AM	No	73.6	79.4	76.8	71
11:53:39 AM	No	69.9	74.4	71.2	68.2
11:54:39 AM	No	68.8	71.5	70.9	66.8
11:55:39 AM	No	69.2	72.6	71.7	67.3
11:56:39 AM	No	73.3	80.3	77.3	68.8
11:57:39 AM	No	71.3	74.9	73.5	68.1
11:58:39 AM	No	69.4	76.5	70.9	67.5
11:59:39 AM	No	69.5	75.9	70.7	67.9
12:00:39 PM	No	70.6	74.6	72.6	67.5
12:01:39 PM	No	72.8	78.8	74.3	69.7
12:02:39 PM	No	70.2	73.1	70.9	68.6
12:03:39 PM	No	68.9	70.7	70.3	68
12:04:39 PM	No	69.2	72	71.1	67.5
12:05:39 PM	No	70.1	73	71.6	67.8
12:06:39 PM	No	66.7	80.8	66	60.8
		70.6			

Time	Overload	Leq	Lmax	L10	L90
11:01:13 PM	No	63.7	74.7	67.6	53.2
11:02:13 PM	No	60.8	68.8	64.5	54
11:03:13 PM	No	68.9	80.8	72.8	56.3
11:04:13 PM	No	63.3	71.3	66.8	54.9
11:05:13 PM	No	57.5	66	59.1	54.3
11:06:13 PM	No	60.7	67.3	64.4	56.1
11:07:13 PM	No	61.8	69.5	67.5	53.8
11:08:13 PM	No	64.4	75.7	67	58.5
11:09:13 PM	No	64.1	69.9	68.1	56.3
11:10:13 PM	No	60.9	66.3	64.2	55.7
11:11:13 PM	No	59.7	68.4	63.5	53.5
11:12:13 PM	No	61.2	72	64.3	53.6
11:13:13 PM	No	60.6	66.2	64.7	52.8
11:14:13 PM	No	59.7	66.2	62.9	55.2
11:15:13 PM	No	61.8	72.2	67.1	53.5
		62.9			

Construction Noise & Vibration Calculations

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

FROM SPREADSHEET

			Estimated Construction Noise Levels, dBA Leq									
Rec.	Description	Closest Distance	Demolition	Grading/ Excavation	Mat Foundation	Foundation	Building Construction	Paving	Ambient	Significance Threshold	Impacts	Max above Threshold
R1		60	82.7	80.3	79.5	82.0	83.2	79.2	55.0	60.0	Yes	23.2
R2		10	98.1	96.0	93.3	94.7	97.7	93.3	55.8	60.8	Yes	37.3
R3		65	82.5	81.0	79.5	82.0	83.0	79.4	59.0	64.0	Yes	19.0
R4		265	70.8	69.8	68.9	71.8	71.9	68.4	71.7	76.7	No	-4.8
R5		445	66.4	65.5	64.7	67.7	67.7	64.1	70.6	75.6	No	-7.9

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

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
Concrete Saw	1	90	20%	60	0
Excavator	1	81	40%	80	0
Rubber Tired Loader	1	79	40%	80	0
Tractor/Loader/Backhoe	1	79	40%	100	0
Air Compressor	1	78	40%	100	0
Water Truck	1	76	40%	125	0
	6				

Receptor: ***R1***

Results:

1-hour Leq: 82.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

Construction Phase: ***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%	60	0
Excavator	1	81	40%	80	0
Crane	1	81	16%	80	0
Welders	1	74	40%	100	0
Excavator	1	81	40%	100	0
Concrete Pump	1	81	20%	125	0
Water Truck	1	76	40%	125	0
Rubber Tired Loaders	1	79	40%	150	0
Excavator	1	81	40%	150	0
	9				

Receptor: ***R1***

Results:

1-hour Leq: 79.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

Construction Phase: ***Mat 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 Mixers	1	80	50%	60	0
Concrete Pump	1	81	20%	80	0
Crane	1	81	16%	80	0
Tractor/Loader/Backhoe	1	79	40%	100	0
Concrete Pump	3	81	20%	100	0
Welders	1	74	40%	125	0
Cement and Mortar Mixers	1	80	50%	125	0
	9				

Receptor: ***R1***

Results:

1-hour Leq: 79.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

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
Plate Compactor	1	83	20%	60	0
Cement and Mortar Mixer	1	80	50%	80	0
Concrete Saw	1	90	20%	80	0
Crane	1	81	16%	100	0
Fork Lift	1	75	20%	100	0
Concrete Pump	1	81	20%	125	0
Fork Lift	1	75	20%	125	0
Plate Compactor	1	83	20%	150	0
Rough Terrain Forklifts	2	75	20%	150	0
Welders	2	74	40%	150	0
Cement and Mortar Mixer	1	80	50%	150	0
Plate Compactor	2	83	20%	150	0
	15				

Receptor: ***R1***

Results:

1-hour Leq: 82.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

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
Concrete Saw	1	90	20%	60	0
Crane	1	81	16%	80	0
Cement and Mortar Mixer	1	80	50%	80	0
Air Compressor	3	78	40%	100	0
Aerial Lift	1	75	20%	100	0
Fork Lift	2	75	20%	125	0
Concrete Pump	1	81	20%	125	0
Plate Compactor	1	83	20%	150	0
Welders	2	74	40%	150	0
Crane	1	81	16%	150	0
Aerial Lift	2	75	20%	150	0
Plate Compactor	1	83	20%	150	0

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Receptor: ***R1***

Results:

1-hour Leq: 83.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

Construction Phase: Paving

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%	60	0
Paving Equipment	1	77	50%	80	0
Roller	1	80	20%	80	0
Skid Steer Loaders	2	79	40%	100	0
Tractor/Loader/Backhoe	2	79	40%	100	0

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Receptor: ***R1***

Results:

1-hour Leq: 79.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

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
Concrete Saw	1	90	20%	10	0
Excavator	1	81	40%	10	0
Rubber Tired Loader	1	79	40%	30	0
Tractor/Loader/Backhoe	1	79	40%	30	0
Air Compressor	1	78	40%	55	0
Water Truck	1	76	40%	55	0
	6				

Receptor: ***R2***

Results:

1-hour Leq: 98.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

Construction Phase: ***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%	10	0
Excavator	1	81	40%	10	0
Crane	1	81	16%	30	0
Welders	1	74	40%	30	0
Excavator	1	81	40%	55	0
Concrete Pump	1	81	20%	55	0
Water Truck	1	76	40%	80	0
Rubber Tired Loaders	1	79	40%	80	0
Excavator	1	81	40%	105	0

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Receptor: ***R2***

Results:

1-hour Leq: 94.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

Construction Phase: ***Mat 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 Mixers	1	80	50%	10	0
Concrete Pump	1	81	20%	10	0
Crane	1	81	16%	30	0
Tractor/Loader/Backhoe	1	79	40%	30	0
Concrete Pump	3	81	20%	55	0
Welders	1	74	40%	55	0
Cement and Mortar Mixers	1	80	50%	80	0
	9				

Receptor: ***R2***

Results:

1-hour Leq: 93.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

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
Plate Compactor	1	83	20%	10	0
Cement and Mortar Mixer	1	80	50%	10	0
Concrete Saw	1	90	20%	30	0
Crane	1	81	16%	30	0
Fork Lift	1	75	20%	55	0
Concrete Pump	1	81	20%	55	0
Fork Lift	1	75	20%	80	0
Plate Compactor	1	83	20%	80	0
Rough Terrain Forklifts	2	75	20%	105	0
Welders	2	74	40%	105	0
Cement and Mortar Mixer	1	80	50%	130	0
Plate Compactor	2	83	20%	130	0
	15				

Receptor: ***R2***

Results:

1-hour Leq: 94.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

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
Concrete Saw	1	90	20%	10	0
Crane	1	81	16%	10	0
Cement and Mortar Mixer	1	80	50%	30	0
Air Compressor	3	78	40%	30	0
Aerial Lift	1	75	20%	55	0
Fork Lift	2	75	20%	55	0
Concrete Pump	1	81	20%	80	0
Plate Compactor	1	83	20%	80	0
Welders	2	74	40%	105	0
Crane	1	81	16%	105	0
Aerial Lift	2	75	20%	130	0
Plate Compactor	1	83	20%	130	0
	17				

Receptor: ***R2***

Results:

1-hour Leq: 97.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

Construction Phase: Paving

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%	10	0
Paving Equipment	1	77	50%	10	0
Roller	1	80	20%	30	0
Skid Steer Loaders	2	79	40%	30	0
Tractor/Loader/Backhoe	2	79	40%	55	0

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Receptor: ***R2***

Results:

1-hour Leq: 93.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

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
Concrete Saw	1	90	20%	65	0
Excavator	1	81	40%	65	0
Rubber Tired Loader	1	79	40%	85	0
Tractor/Loader/Backhoe	1	79	40%	85	0
Air Compressor	1	78	40%	105	0
Water Truck	1	76	40%	105	0
	6				

Receptor: ***R3***

Results:

1-hour Leq: 82.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

Construction Phase: ***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%	65	0
Excavator	1	81	40%	65	0
Crane	1	81	16%	85	0
Welders	1	74	40%	85	0
Excavator	1	81	40%	105	0
Concrete Pump	1	81	20%	105	0
Water Truck	1	76	40%	125	0
Rubber Tired Loaders	1	79	40%	125	0
Excavator	1	81	40%	145	0
	9				

Receptor: ***R3***

Results:

1-hour Leq: 80.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

Construction Phase: ***Mat 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 Mixers	1	80	50%	65	0
Concrete Pump	1	81	20%	65	0
Crane	1	81	16%	85	0
Tractor/Loader/Backhoe	1	79	40%	85	0
Concrete Pump	3	81	20%	105	0
Welders	1	74	40%	105	0
Cement and Mortar Mixers	1	80	50%	125	0
	9				

Receptor: ***R3***

Results:

1-hour Leq: 79.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

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
Plate Compactor	1	83	20%	65	0
Cement and Mortar Mixer	1	80	50%	65	0
Concrete Saw	1	90	20%	85	0
Crane	1	81	16%	85	0
Fork Lift	1	75	20%	105	0
Concrete Pump	1	81	20%	105	0
Fork Lift	1	75	20%	125	0
Plate Compactor	1	83	20%	125	0
Rough Terrain Forklifts	2	75	20%	145	0
Welders	2	74	40%	145	0
Cement and Mortar Mixer	1	80	50%	165	0
Plate Compactor	2	83	20%	165	0
	15				

Receptor: ***R3***

Results:

1-hour Leq: 82.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

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
Concrete Saw	1	90	20%	65	0
Crane	1	81	16%	65	0
Cement and Mortar Mixer	1	80	50%	85	0
Air Compressor	3	78	40%	85	0
Aerial Lift	1	75	20%	105	0
Fork Lift	2	75	20%	105	0
Concrete Pump	1	81	20%	125	0
Plate Compactor	1	83	20%	125	0
Welders	2	74	40%	145	0
Crane	1	81	16%	145	0
Aerial Lift	2	75	20%	165	0
Plate Compactor	1	83	20%	165	0

17

Receptor: ***R3***

Results:

1-hour Leq: 83.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

Construction Phase: Paving

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%	65	0
Paving Equipment	1	77	50%	65	0
Roller	1	80	20%	85	0
Skid Steer Loaders	2	79	40%	85	0
Tractor/Loader/Backhoe	2	79	40%	105	0
	7				

Receptor: ***R3***

Results:

1-hour Leq: 79.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

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
Concrete Saw	1	90	20%	265	0
Excavator	1	81	40%	265	0
Rubber Tired Loader	1	79	40%	285	0
Tractor/Loader/Backhoe	1	79	40%	285	0
Air Compressor	1	78	40%	305	0
Water Truck	1	76	40%	305	0
	6				

Receptor: ***R4***

Results:

1-hour Leq: 70.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

Construction Phase: ***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%	265	0
Excavator	1	81	40%	265	0
Crane	1	81	16%	285	0
Welders	1	74	40%	285	0
Excavator	1	81	40%	305	0
Concrete Pump	1	81	20%	305	0
Water Truck	1	76	40%	325	0
Rubber Tired Loaders	1	79	40%	325	0
Excavator	1	81	40%	345	0
	9				

Receptor: ***R4***

Results:

1-hour Leq: 69.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

Construction Phase: ***Mat 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 Mixers	1	80	50%	265	0
Concrete Pump	1	81	20%	265	0
Crane	1	81	16%	285	0
Tractor/Loader/Backhoe	1	79	40%	285	0
Concrete Pump	3	81	20%	305	0
Welders	1	74	40%	305	0
Cement and Mortar Mixers	1	80	50%	325	0
	9				

Receptor: ***R4***

Results:

1-hour Leq: 68.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

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
Plate Compactor	1	83	20%	265	0
Cement and Mortar Mixer	1	80	50%	265	0
Concrete Saw	1	90	20%	285	0
Crane	1	81	16%	285	0
Fork Lift	1	75	20%	305	0
Concrete Pump	1	81	20%	305	0
Fork Lift	1	75	20%	325	0
Plate Compactor	1	83	20%	325	0
Rough Terrain Forklifts	2	75	20%	345	0
Welders	2	74	40%	345	0
Cement and Mortar Mixer	1	80	50%	365	0
Plate Compactor	2	83	20%	365	0
	15				

Receptor: ***R4***

Results:

1-hour Leq: 71.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

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
Concrete Saw	1	90	20%	265	0
Crane	1	81	16%	265	0
Cement and Mortar Mixer	1	80	50%	285	0
Air Compressor	3	78	40%	285	0
Aerial Lift	1	75	20%	305	0
Fork Lift	2	75	20%	305	0
Concrete Pump	1	81	20%	325	0
Plate Compactor	1	83	20%	325	0
Welders	2	74	40%	345	0
Crane	1	81	16%	345	0
Aerial Lift	2	75	20%	365	0
Plate Compactor	1	83	20%	365	0
	17				

Receptor: ***R4***

Results:

1-hour Leq: 71.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

Construction Phase: Paving

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%	265	0
Paving Equipment	1	77	50%	265	0
Roller	1	80	20%	285	0
Skid Steer Loaders	2	79	40%	285	0
Tractor/Loader/Backhoe	2	79	40%	305	0
	7				

Receptor: ***R4***

Results:

1-hour Leq: 68.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

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
Concrete Saw	1	90	20%	445	0
Excavator	1	81	40%	445	0
Rubber Tired Loader	1	79	40%	465	0
Tractor/Loader/Backhoe	1	79	40%	465	0
Air Compressor	1	78	40%	485	0
Water Truck	1	76	40%	485	0
	6				

Receptor: ***R5***

Results:

1-hour Leq: 66.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

Construction Phase: ***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%	445	0
Excavator	1	81	40%	445	0
Crane	1	81	16%	465	0
Welders	1	74	40%	465	0
Excavator	1	81	40%	485	0
Concrete Pump	1	81	20%	485	0
Water Truck	1	76	40%	505	0
Rubber Tired Loaders	1	79	40%	505	0
Excavator	1	81	40%	525	0
	9				

Receptor: ***R5***

Results:

1-hour Leq: 65.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

Construction Phase: ***Mat 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 Mixers	1	80	50%	445	0
Concrete Pump	1	81	20%	445	0
Crane	1	81	16%	465	0
Tractor/Loader/Backhoe	1	79	40%	465	0
Concrete Pump	3	81	20%	485	0
Welders	1	74	40%	485	0
Cement and Mortar Mixers	1	80	50%	505	0
	9				

Receptor: ***R5***

Results:

1-hour Leq: 64.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

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
Plate Compactor	1	83	20%	445	0
Cement and Mortar Mixer	1	80	50%	445	0
Concrete Saw	1	90	20%	465	0
Crane	1	81	16%	465	0
Fork Lift	1	75	20%	485	0
Concrete Pump	1	81	20%	485	0
Fork Lift	1	75	20%	505	0
Plate Compactor	1	83	20%	505	0
Rough Terrain Forklifts	2	75	20%	525	0
Welders	2	74	40%	525	0
Cement and Mortar Mixer	1	80	50%	545	0
Plate Compactor	2	83	20%	545	0
	15				

Receptor: ***R5***

Results:

1-hour Leq: 67.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

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
Concrete Saw	1	90	20%	445	0
Crane	1	81	16%	445	0
Cement and Mortar Mixer	1	80	50%	465	0
Air Compressor	3	78	40%	465	0
Aerial Lift	1	75	20%	485	0
Fork Lift	2	75	20%	485	0
Concrete Pump	1	81	20%	505	0
Plate Compactor	1	83	20%	505	0
Welders	2	74	40%	525	0
Crane	1	81	16%	525	0
Aerial Lift	2	75	20%	545	0
Plate Compactor	1	83	20%	545	0
	17				

Receptor: ***R5***

Results:

1-hour Leq: 67.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

Construction Phase: Paving

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%	445	0
Paving Equipment	1	77	50%	445	0
Roller	1	80	20%	465	0
Skid Steer Loaders	2	79	40%	465	0
Tractor/Loader/Backhoe	2	79	40%	485	0
	7				

Receptor: ***R5***

Results:

1-hour Leq: 64.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

FROM SPREADSHEET

			Estimated Construction Noise Levels, dBA Leq									
Rec.	Description	Closest Distance	Demolition	Grading/ Excavation	Mat Foundation	Foundation	Building Construction	Paving	Ambient	Significance Threshold	Impacts	Max above Threshold
R1		60	82.7	79.2	79.5	82.0	83.2	79.2	55.0	60.0	Yes	23.2
R2		10	98.1	94.3	93.3	94.7	97.7	93.3	55.8	60.8	Yes	37.3
R3		65	82.5	79.5	79.5	82.0	83.0	79.4	59.0	64.0	Yes	19.0
R4		265	70.8	68.4	68.9	71.8	71.9	68.4	71.7	76.7	No	-4.8
R5		445	66.4	64.1	64.7	67.7	67.7	64.1	70.6	75.6	No	-7.9

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

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
Concrete Saw	1	90	20%	60	0
Excavator	1	81	40%	80	0
Rubber Tired Loader	1	79	40%	80	0
Tractor/Loader/Backhoe	1	79	40%	100	0
Air Compressor	1	78	40%	100	0
Water Truck	1	76	40%	125	0

6

Receptor: ***R1***

Results:

1-hour Leq: 82.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

Construction Phase: ***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%	60	0
Excavator	1	81	40%	80	0
Crane	1	81	16%	80	0
Welders	1	74	40%	100	0
Excavator	1	81	40%	100	0
Concrete Pump	1	81	20%	125	0
Water Truck	1	76	40%	125	0

7

Receptor: ***R1***

Results:

1-hour Leq: 79.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

Construction Phase: ***Mat 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 Mixers	1	80	50%	60	0
Concrete Pump	1	81	20%	80	0
Crane	1	81	16%	80	0
Tractor/Loader/Backhoe	1	79	40%	100	0
Concrete Pump	3	81	20%	100	0
Welders	1	74	40%	125	0
Cement and Mortar Mixers	1	80	50%	125	0
	9				

Receptor: ***R1***

Results:

1-hour Leq: 79.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

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
Plate Compactor	1	83	20%	60	0
Cement and Mortar Mixer	1	80	50%	80	0
Concrete Saw	1	90	20%	80	0
Crane	1	81	16%	100	0
Fork Lift	1	75	20%	100	0
Concrete Pump	1	81	20%	125	0
Fork Lift	1	75	20%	125	0
Plate Compactor	1	83	20%	150	0
Rough Terrain Forklifts	2	75	20%	150	0
Welders	2	74	40%	150	0
Cement and Mortar Mixer	1	80	50%	150	0
Plate Compactor	2	83	20%	150	0
	15				

Receptor: ***R1***

Results:

1-hour Leq: 82.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

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
Concrete Saw	1	90	20%	60	0
Crane	1	81	16%	80	0
Cement and Mortar Mixer	1	80	50%	80	0
Air Compressor	3	78	40%	100	0
Aerial Lift	1	75	20%	100	0
Fork Lift	2	75	20%	125	0
Concrete Pump	1	81	20%	125	0
Plate Compactor	1	83	20%	150	0
Welders	2	74	40%	150	0
Crane	1	81	16%	150	0
Aerial Lift	2	75	20%	150	0
Plate Compactor	1	83	20%	150	0

17

Receptor: ***R1***

Results:

1-hour Leq: 83.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

Construction Phase: Paving

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%	60	0
Paving Equipment	1	77	50%	80	0
Roller	1	80	20%	80	0
Skid Steer Loaders	2	79	40%	100	0
Tractor/Loader/Backhoe	2	79	40%	100	0

7

Receptor: ***R1***

Results:

1-hour Leq: 79.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

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
Concrete Saw	1	90	20%	10	0
Excavator	1	81	40%	10	0
Rubber Tired Loader	1	79	40%	30	0
Tractor/Loader/Backhoe	1	79	40%	30	0
Air Compressor	1	78	40%	55	0
Water Truck	1	76	40%	55	0
	6				

Receptor: ***R2***

Results:

1-hour Leq: 98.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

Construction Phase: ***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%	10	0
Excavator	1	81	40%	10	0
Crane	1	81	16%	30	0
Welders	1	74	40%	30	0
Excavator	1	81	40%	55	0
Concrete Pump	1	81	20%	55	0
Water Truck	1	76	40%	80	0

7

Receptor: ***R2***

Results:

1-hour Leq: 94.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

Construction Phase: ***Mat 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 Mixers	1	80	50%	10	0
Concrete Pump	1	81	20%	10	0
Crane	1	81	16%	30	0
Tractor/Loader/Backhoe	1	79	40%	30	0
Concrete Pump	3	81	20%	55	0
Welders	1	74	40%	55	0
Cement and Mortar Mixers	1	80	50%	80	0
	9				

Receptor: ***R2***

Results:

1-hour Leq: 93.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

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
Plate Compactor	1	83	20%	10	0
Cement and Mortar Mixer	1	80	50%	10	0
Concrete Saw	1	90	20%	30	0
Crane	1	81	16%	30	0
Fork Lift	1	75	20%	55	0
Concrete Pump	1	81	20%	55	0
Fork Lift	1	75	20%	80	0
Plate Compactor	1	83	20%	80	0
Rough Terrain Forklifts	2	75	20%	105	0
Welders	2	74	40%	105	0
Cement and Mortar Mixer	1	80	50%	130	0
Plate Compactor	2	83	20%	130	0
	15				

Receptor: ***R2***

Results:

1-hour Leq: 94.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

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
Concrete Saw	1	90	20%	10	0
Crane	1	81	16%	10	0
Cement and Mortar Mixer	1	80	50%	30	0
Air Compressor	3	78	40%	30	0
Aerial Lift	1	75	20%	55	0
Fork Lift	2	75	20%	55	0
Concrete Pump	1	81	20%	80	0
Plate Compactor	1	83	20%	80	0
Welders	2	74	40%	105	0
Crane	1	81	16%	105	0
Aerial Lift	2	75	20%	130	0
Plate Compactor	1	83	20%	130	0
	17				

Receptor: ***R2***

Results:

1-hour Leq: 97.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

Construction Phase: Paving

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%	10	0
Paving Equipment	1	77	50%	10	0
Roller	1	80	20%	30	0
Skid Steer Loaders	2	79	40%	30	0
Tractor/Loader/Backhoe	2	79	40%	55	0
	7				

Receptor: ***R2***

Results:

1-hour Leq: 93.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

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
Concrete Saw	1	90	20%	65	0
Excavator	1	81	40%	65	0
Rubber Tired Loader	1	79	40%	85	0
Tractor/Loader/Backhoe	1	79	40%	85	0
Air Compressor	1	78	40%	105	0
Water Truck	1	76	40%	105	0
	6				

Receptor: ***R3***

Results:

1-hour Leq: 82.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

Construction Phase: ***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%	65	0
Excavator	1	81	40%	65	0
Crane	1	81	16%	85	0
Welders	1	74	40%	85	0
Excavator	1	81	40%	105	0
Concrete Pump	1	81	20%	105	0
Water Truck	1	76	40%	125	0

7

Receptor: ***R3***

Results:

1-hour Leq: 79.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

Construction Phase: ***Mat 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 Mixers	1	80	50%	65	0
Concrete Pump	1	81	20%	65	0
Crane	1	81	16%	85	0
Tractor/Loader/Backhoe	1	79	40%	85	0
Concrete Pump	3	81	20%	105	0
Welders	1	74	40%	105	0
Cement and Mortar Mixers	1	80	50%	125	0
	9				

Receptor: ***R3***

Results:

1-hour Leq: 79.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

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
Plate Compactor	1	83	20%	65	0
Cement and Mortar Mixer	1	80	50%	65	0
Concrete Saw	1	90	20%	85	0
Crane	1	81	16%	85	0
Fork Lift	1	75	20%	105	0
Concrete Pump	1	81	20%	105	0
Fork Lift	1	75	20%	125	0
Plate Compactor	1	83	20%	125	0
Rough Terrain Forklifts	2	75	20%	145	0
Welders	2	74	40%	145	0
Cement and Mortar Mixer	1	80	50%	165	0
Plate Compactor	2	83	20%	165	0
	15				

Receptor: ***R3***

Results:

1-hour Leq: 82.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

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
Concrete Saw	1	90	20%	65	0
Crane	1	81	16%	65	0
Cement and Mortar Mixer	1	80	50%	85	0
Air Compressor	3	78	40%	85	0
Aerial Lift	1	75	20%	105	0
Fork Lift	2	75	20%	105	0
Concrete Pump	1	81	20%	125	0
Plate Compactor	1	83	20%	125	0
Welders	2	74	40%	145	0
Crane	1	81	16%	145	0
Aerial Lift	2	75	20%	165	0
Plate Compactor	1	83	20%	165	0
	17				

Receptor: ***R3***

Results:

1-hour Leq: 83.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

Construction Phase: Paving

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%	65	0
Paving Equipment	1	77	50%	65	0
Roller	1	80	20%	85	0
Skid Steer Loaders	2	79	40%	85	0
Tractor/Loader/Backhoe	2	79	40%	105	0
	7				

Receptor: ***R3***

Results:

1-hour Leq: 79.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

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
Concrete Saw	1	90	20%	265	0
Excavator	1	81	40%	265	0
Rubber Tired Loader	1	79	40%	285	0
Tractor/Loader/Backhoe	1	79	40%	285	0
Air Compressor	1	78	40%	305	0
Water Truck	1	76	40%	305	0
	6				

Receptor: ***R4***

Results:

1-hour Leq: 70.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

Construction Phase: ***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%	265	0
Excavator	1	81	40%	265	0
Crane	1	81	16%	285	0
Welders	1	74	40%	285	0
Excavator	1	81	40%	305	0
Concrete Pump	1	81	20%	305	0
Water Truck	1	76	40%	325	0

7

Receptor: ***R4***

Results:

1-hour Leq: 68.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

Construction Phase: ***Mat 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 Mixers	1	80	50%	265	0
Concrete Pump	1	81	20%	265	0
Crane	1	81	16%	285	0
Tractor/Loader/Backhoe	1	79	40%	285	0
Concrete Pump	3	81	20%	305	0
Welders	1	74	40%	305	0
Cement and Mortar Mixers	1	80	50%	325	0
	9				

Receptor: ***R4***

Results:

1-hour Leq: 68.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

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
Plate Compactor	1	83	20%	265	0
Cement and Mortar Mixer	1	80	50%	265	0
Concrete Saw	1	90	20%	285	0
Crane	1	81	16%	285	0
Fork Lift	1	75	20%	305	0
Concrete Pump	1	81	20%	305	0
Fork Lift	1	75	20%	325	0
Plate Compactor	1	83	20%	325	0
Rough Terrain Forklifts	2	75	20%	345	0
Welders	2	74	40%	345	0
Cement and Mortar Mixer	1	80	50%	365	0
Plate Compactor	2	83	20%	365	0
	15				

Receptor: ***R4***

Results:

1-hour Leq: 71.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

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
Concrete Saw	1	90	20%	265	0
Crane	1	81	16%	265	0
Cement and Mortar Mixer	1	80	50%	285	0
Air Compressor	3	78	40%	285	0
Aerial Lift	1	75	20%	305	0
Fork Lift	2	75	20%	305	0
Concrete Pump	1	81	20%	325	0
Plate Compactor	1	83	20%	325	0
Welders	2	74	40%	345	0
Crane	1	81	16%	345	0
Aerial Lift	2	75	20%	365	0
Plate Compactor	1	83	20%	365	0
	17				

Receptor: ***R4***

Results:

1-hour Leq: 71.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

Construction Phase: Paving

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%	265	0
Paving Equipment	1	77	50%	265	0
Roller	1	80	20%	285	0
Skid Steer Loaders	2	79	40%	285	0
Tractor/Loader/Backhoe	2	79	40%	305	0
	7				

Receptor: ***R4***

Results:

1-hour Leq: 68.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

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
Concrete Saw	1	90	20%	445	0
Excavator	1	81	40%	445	0
Rubber Tired Loader	1	79	40%	465	0
Tractor/Loader/Backhoe	1	79	40%	465	0
Air Compressor	1	78	40%	485	0
Water Truck	1	76	40%	485	0
	6				

Receptor: ***R5***

Results:

1-hour Leq: 66.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

Construction Phase: ***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%	445	0
Excavator	1	81	40%	445	0
Crane	1	81	16%	465	0
Welders	1	74	40%	465	0
Excavator	1	81	40%	485	0
Concrete Pump	1	81	20%	485	0
Water Truck	1	76	40%	505	0

7

Receptor: ***R5***

Results:

1-hour Leq: 64.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

Construction Phase: ***Mat 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 Mixers	1	80	50%	445	0
Concrete Pump	1	81	20%	445	0
Crane	1	81	16%	465	0
Tractor/Loader/Backhoe	1	79	40%	465	0
Concrete Pump	3	81	20%	485	0
Welders	1	74	40%	485	0
Cement and Mortar Mixers	1	80	50%	505	0
	9				

Receptor: ***R5***

Results:

1-hour Leq: 64.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

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
Plate Compactor	1	83	20%	445	0
Cement and Mortar Mixer	1	80	50%	445	0
Concrete Saw	1	90	20%	465	0
Crane	1	81	16%	465	0
Fork Lift	1	75	20%	485	0
Concrete Pump	1	81	20%	485	0
Fork Lift	1	75	20%	505	0
Plate Compactor	1	83	20%	505	0
Rough Terrain Forklifts	2	75	20%	525	0
Welders	2	74	40%	525	0
Cement and Mortar Mixer	1	80	50%	545	0
Plate Compactor	2	83	20%	545	0
	15				

Receptor: ***R5***

Results:

1-hour Leq: 67.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

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
Concrete Saw	1	90	20%	445	0
Crane	1	81	16%	445	0
Cement and Mortar Mixer	1	80	50%	465	0
Air Compressor	3	78	40%	465	0
Aerial Lift	1	75	20%	485	0
Fork Lift	2	75	20%	485	0
Concrete Pump	1	81	20%	505	0
Plate Compactor	1	83	20%	505	0
Welders	2	74	40%	525	0
Crane	1	81	16%	525	0
Aerial Lift	2	75	20%	545	0
Plate Compactor	1	83	20%	545	0
	17				

Receptor: ***R5***

Results:

1-hour Leq: 67.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

Construction Phase: Paving

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%	445	0
Paving Equipment	1	77	50%	445	0
Roller	1	80	20%	465	0
Skid Steer Loaders	2	79	40%	465	0
Tractor/Loader/Backhoe	2	79	40%	485	0
	7				

Receptor: ***R5***

Results:

1-hour Leq: 64.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - OFFICE OPTION

Off-Site Haul Trucks

	Maximum Number of Truck One Way Trips (delivery/haul)		Worker Trips		Project Noise Levels		Ambient		Ambient+Project	
Phase	Per Day	Per Hour (10-hr day)	Daily Trips	Trips during Pk Hr.	Vine St.	Sunset Blvd.	Vine St.	Sunset Blvd.	Vine St.	Sunset Blvd.
1. Demolition (6hrs)	20	4	25	10	56.9	56.9	71.7	71.7	71.8	71.8
2. Grading/Excavation (6hrs)	190	32	75	30	65.6	65.6	71.7	71.7	72.7	72.7
3. Mat Pour	350	35	25	10	65.9	65.9	71.7	71.7	72.7	72.7
4. Foundation	100	10	175	70	61.8	61.8	71.7	71.7	72.1	72.1
5. Building Construction	30	3	500	200	61.9	61.9	71.7	71.7	72.1	72.1
6. Paving	30	3	50	20	56.5	56.5	71.7	71.7	71.8	71.8

Hauls: 6 hours, applicable to Demolition and Grading phases

Eyestone Environmental **18 February 2019**

Sean Bui **TNM 2.5**

INPUT: ROADWAYS

PROJECT/CONTRACT: **1360 Vine Street Project**

RUN: **Construction Trucks - Demo Phase**

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				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					

Eyestone Environmental				**27 July 2020**								
Sean Bui				**TNM 2.5**								
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:	**1360 Vine Street Project**											
RUN:	**Construction Trucks - Demo 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	10	35	0	0	4	35	0	0	0	0
	point2	2										

Eyestone Environmental **18 February 2019**

Sean Bui **TNM 2.5**

INPUT: RECEIVERS

PROJECT/CONTRACT: **1360 Vine Street Project**

RUN: **Construction Trucks - Demo Phase**

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
At 45 feet from Roadway CL	8	1	500.0	45.0	0.00	4.92	0.00	66	10.0	8.0	Y

RESULTS: SOUND LEVELS **1360 Vine Street Project**

Eyestone Environmental **27 July 2020**
Sean Bui **TNM 2.5**
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: **1360 Vine Street Project**
RUN: **Construction Trucks - Demo Phase**
BARRIER DESIGN: **INPUT HEIGHTS**
ATMOSPHERICS: **68 deg F, 50% RH**

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
At 45 feet from Roadway CL	8	1	0.0	56.9	66	56.9	10	----	56.9	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Eyestone Environmental **18 February 2019**

Sean Bui **TNM 2.5**

INPUT: ROADWAYS

PROJECT/CONTRACT: **1360 Vine Street Project**

RUN: **Construction Trucks - Grading Phase**

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				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					

Eyestone Environmental				**27 July 2020**								
Sean Bui				**TNM 2.5**								
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:	**1360 Vine Street Project**											
RUN:	**Construction Trucks - 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	30	35	0	0	32	35	0	0	0	0
	point2	2										

Eyestone Environmental **18 February 2019**
Sean Bui **TNM 2.5**

INPUT: RECEIVERS
PROJECT/CONTRACT: **1360 Vine Street Project**
RUN: **Construction Trucks - Grading Phase**

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor at 45 feet	8	1	500.0	45.0	0.00	4.92	0.00	66	10.0	8.0	Y

RESULTS: SOUND LEVELS **1360 Vine Street Project**

Eyestone Environmental **27 July 2020**
Sean Bui **TNM 2.5**
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 1360 Vine Street Project
RUN: Construction Trucks - Grading Phase
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receptor at 45 feet	8	1	0.0	65.6	66	65.6	10	----	65.6	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Eyestone Environmental	**25 August 2020**
Sean Bui	**TNM 2.5**

INPUT: ROADWAYS	**Average pavement type shall be used unless**
PROJECT/CONTRACT:	**1360 Vine Street Project**	**a State highway agency substantiates the use**
RUN:	**Const. Trucks - Mat Foundation Phase**	**of a different type with the approval of FHWA**

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					

Eyestone Environmental **25 August 2020**

Sean Bui **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes

PROJECT/CONTRACT: **1360 Vine Street Project**

RUN: **Const. Trucks - Mat Foundation 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	10	35	0	0	35	35	0	0	0	0
	point2	2										

Eyestone Environmental **25 August 2020**
Sean Bui **TNM 2.5**

INPUT: RECEIVERS
PROJECT/CONTRACT: **1360 Vine Street Project**
RUN: **Const. Trucks - Mat Foundation 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.**
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor at 45 feet	8	1	500.0	45.0	0.00	4.92	0.00	66	10.0	8.0	Y

RESULTS: SOUND LEVELS **1360 Vine Street Project**

Eyestone Environmental **25 August 2020**
Sean Bui **TNM 2.5**
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 1360 Vine Street Project
RUN: Const. Trucks - Mat Foundation Phase
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receptor at 45 feet	8	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Eyestone Environmental **18 February 2019**

Sean Bui **TNM 2.5**

INPUT: ROADWAYS

PROJECT/CONTRACT: **1360 Vine Street Project**

RUN: **Construction Trucks - Foundation Phase**

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				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					

Eyestone Environmental				**27 July 2020**								
Sean Bui				**TNM 2.5**								
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:	**1360 Vine Street Project**											
RUN:	**Construction Trucks - Foundation 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	70	35	0	0	10	35	0	0	0	0
	point2	2										

Eyestone Environmental **18 February 2019**
Sean Bui **TNM 2.5**

INPUT: RECEIVERS
PROJECT/CONTRACT: **1360 Vine Street Project**
RUN: **Construction Trucks - Foundation Phase**

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor at 45 feet	8	1	500.0	45.0	0.00	4.92	0.00	66	10.0	8.0	Y

RESULTS: SOUND LEVELS **1360 Vine Street Project**

Eyestone Environmental **27 July 2020**
Sean Bui **TNM 2.5**
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 1360 Vine Street Project
RUN: Construction Trucks - Foundation Phase
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver												
Name	No.	#DUs	Existing	No Barrier					With Barrier			
			LAeq1h	LAeq1h		Increase over existing		Type	Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc	Impact	LAeq1h	Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receptor at 45 feet	8	1	0.0	61.8	66	61.8	10	----	61.8	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Eyestone Environmental 18 February 2019

Sean Bui TNM 2.5

INPUT: ROADWAYS

PROJECT/CONTRACT: 1360 Vine Street Project

RUN: Construction Trucks - Building Phase

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				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					

Eyestone Environmental				**27 July 2020**								
Sean Bui				**TNM 2.5**								
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:	**1360 Vine Street Project**											
RUN:	**Construction Trucks - Building 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	200	35	0	0	3	35	0	0	0	0
	point2	2										

Eyestone Environmental **18 February 2019**
Sean Bui **TNM 2.5**

INPUT: RECEIVERS
PROJECT/CONTRACT: **1360 Vine Street Project**
RUN: **Construction Trucks - Building Phase**

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor at 45 feet	8	1	500.0	45.0	0.00	4.92	0.00	66	10.0	8.0	Y

RESULTS: SOUND LEVELS **1360 Vine Street Project**

Eyestone Environmental **27 July 2020**
Sean Bui **TNM 2.5**
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 1360 Vine Street Project
RUN: Construction Trucks - Building Phase
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receptor at 45 feet	8	1	0.0	61.9	66	61.9	10	----	61.9	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Eyestone Environmental **18 February 2019**

Sean Bui **TNM 2.5**

INPUT: ROADWAYS

PROJECT/CONTRACT: **1360 Vine Street Project**

RUN: **Construction Trucks - Paving Phase**

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				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					

Eyestone Environmental **27 July 2020**

Sean Bui **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes

PROJECT/CONTRACT: **1360 Vine Street Project**

RUN: **Construction Trucks - Paving 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	20	35	0	0	3	35	0	0	0	0
	point2	2										

Eyestone Environmental **18 February 2019**

Sean Bui **TNM 2.5**

INPUT: RECEIVERS

PROJECT/CONTRACT: **1360 Vine Street Project**

RUN: **Construction Trucks - Paving Phase**

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor at 45 feet	8	1	500.0	45.0	0.00	4.92	0.00	66	10.0	8.0	Y

RESULTS: SOUND LEVELS **1360 Vine Street Project**

Eyestone Environmental **27 July 2020**
Sean Bui **TNM 2.5**
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: **1360 Vine Street Project**
RUN: **Construction Trucks - Paving Phase**
BARRIER DESIGN: **INPUT HEIGHTS**
ATMOSPHERICS: **68 deg F, 50% RH**

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver												
Name	**No.**	**#DUs**	**Existing**	**No Barrier**					**With Barrier**			
			LAeq1h	**LAeq1h**		**Increase over existing**		**Type**	**Calculated**	**Noise Reduction**		
				Calculated	**Crit'n**	**Calculated**	**Crit'n Sub'l Inc**	**Impact**	**LAeq1h**	**Calculated**	**Goal**	**Calculated minus Goal**
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receptor at 45 feet	8	1	0.0	56.5	66	56.5	10	----	56.5	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

AES
ACOUSTICAL ENGINEERING SERVICES

Project: 1360 Vine Project - RESIDENTIAL OPTION

Off-Site Haul Trucks

	Maximum Number of Truck One Way Trips (delivery/haul)		Worker Trips		Project Noise Levels		Ambient		Ambient+Project	
Phase	Per Day	Per Hour (10-hr day)	Daily Trips	Trips during Pk Hr.	Vine St.	Sunset Blvd.	Vine St.	Sunset Blvd.	Vine St.	Sunset Blvd.
1. Demolition (6hrs)	20	4	25	10	56.9	56.9	71.7	71.7	71.8	71.8
2. Grading/Excavation (6hrs)	170	29	75	30	65.2	65.2	71.7	71.7	72.6	72.6
3. Mat Foundation	350	35	25	10	65.9	65.9	71.7	71.7	72.7	72.7
4. Foundation	100	10	175	70	61.8	61.8	71.7	71.7	72.1	72.1
5. Building Construction	30	3	500	200	61.9	61.9	71.7	71.7	72.1	72.1
6. Paving	30	3	50	20	56.5	56.5	71.7	71.7	71.8	71.8

Hauls: 6 hours, applicable to Demolition and Grading phases

INPUT: ROADWAYS **1360 Vine Street Project**

Eyestone Environmental **18 February 2019**

Sean Bui **TNM 2.5**

INPUT: ROADWAYS **Average pavement type shall be used unless**

PROJECT/CONTRACT: **1360 Vine Street Project** **a State highway agency substantiates the use**

RUN: **Construction Trucks - Demo Phase** **of a different type with the approval of FHWA**

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				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 **1360 Vine Street Project**

Eyestone Environmental				**27 July 2020**								
Sean Bui				**TNM 2.5**								
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:	**1360 Vine Street Project**											
RUN:	**Construction Trucks - Demo 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	10	35	0	0	4	35	0	0	0	0
	point2	2										

INPUT: RECEIVERS **1360 Vine Street Project**

Eyestone Environmental **18 February 2019**
Sean Bui **TNM 2.5**

INPUT: RECEIVERS
PROJECT/CONTRACT: **1360 Vine Street Project**
RUN: **Construction Trucks - Demo 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.**
			ft	ft	ft	ft	dBA	dBA	dB	dB	
At 45 feet from Roadway CL	8	1	500.0	45.0	0.00	4.92	0.00	66	10.0	8.0	Y

RESULTS: SOUND LEVELS **1360 Vine Street Project**

Eyestone Environmental **27 July 2020**
Sean Bui **TNM 2.5**
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: **1360 Vine Street Project**
RUN: **Construction Trucks - Demo Phase**
BARRIER DESIGN: **INPUT HEIGHTS**
ATMOSPHERICS: **68 deg F, 50% RH**

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier			
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc		Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
At 45 feet from Roadway CL	8	1	0.0	56.9	66	56.9	10	----	56.9	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

INPUT: ROADWAYS **1360 Vine Street Project**

Eyestone Environmental **18 February 2019**

Sean Bui **TNM 2.5**

INPUT: ROADWAYS **Average pavement type shall be used unless**

PROJECT/CONTRACT: **1360 Vine Street Project** **a State highway agency substantiates the use**

RUN: **Construction Trucks - Grading Phase** **of a different type with the approval of FHWA**

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				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 **1360 Vine Street Project**

Eyestone Environmental				**27 July 2020**								
Sean Bui				**TNM 2.5**								
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:	**1360 Vine Street Project**											
RUN:	**Construction Trucks - 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	30	35	0	0	29	35	0	0	0	0
	point2	2										

INPUT: RECEIVERS **1360 Vine Street Project**

Eyestone Environmental **18 February 2019**
Sean Bui **TNM 2.5**

INPUT: RECEIVERS
PROJECT/CONTRACT: **1360 Vine Street Project**
RUN: **Construction Trucks - 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.**
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor at 45 feet	8	1	500.0	45.0	0.00	4.92	0.00	66	10.0	8.0	Y

RESULTS: SOUND LEVELS **1360 Vine Street Project**

Eyestone Environmental **27 July 2020**
Sean Bui **TNM 2.5**
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 1360 Vine Street Project
RUN: Construction Trucks - Grading Phase
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receptor at 45 feet	8	1	0.0	65.2	66	65.2	10	----	65.2	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

INPUT: ROADWAYS **1360 Vine Street Project**

Eyestone Environmental **25 August 2020**

Sean Bui **TNM 2.5**

INPUT: ROADWAYS **Average pavement type shall be used unless**

PROJECT/CONTRACT: **1360 Vine Street Project** **a State highway agency substantiates the use**

RUN: **Const Trucks - Mat Foundation Phase** **of a different type with the approval of FHWA**

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				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 **1360 Vine Street Project**

Eyestone Environmental **25 August 2020**

Sean Bui **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes

PROJECT/CONTRACT: **1360 Vine Street Project**

RUN: **Const Trucks - Mat Foundation 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	10	35	0	0	35	35	0	0	0	0
	point2	2										

INPUT: RECEIVERS **1360 Vine Street Project**

Eyestone Environmental **25 August 2020**
Sean Bui **TNM 2.5**

INPUT: RECEIVERS
PROJECT/CONTRACT: **1360 Vine Street Project**
RUN: **Const Trucks - Mat Foundation 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.**
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor at 45 feet	8	1	500.0	45.0	0.00	4.92	0.00	66	10.0	8.0	Y

RESULTS: SOUND LEVELS **1360 Vine Street Project**

Eyestone Environmental **25 August 2020**
Sean Bui **TNM 2.5**
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: **1360 Vine Street Project**
RUN: **Const Trucks - Mat Foundation Phase**
BARRIER DESIGN: **INPUT HEIGHTS**
ATMOSPHERICS: **68 deg F, 50% RH**

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receptor at 45 feet	8	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

INPUT: ROADWAYS **1360 Vine Street Project**

Eyestone Environmental **18 February 2019**

Sean Bui **TNM 2.5**

INPUT: ROADWAYS **Average pavement type shall be used unless**

PROJECT/CONTRACT: **1360 Vine Street Project** **a State highway agency substantiates the use**

RUN: **Construction Trucks - Foundation Phase** **of a different type with the approval of FHWA**

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				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 **1360 Vine Street Project**

Eyestone Environmental				**27 July 2020**								
Sean Bui				**TNM 2.5**								
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:	**1360 Vine Street Project**											
RUN:	**Construction Trucks - Foundation 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	70	35	0	0	10	35	0	0	0	0
	point2	2										

INPUT: RECEIVERS **1360 Vine Street Project**

Eyestone Environmental **18 February 2019**
Sean Bui **TNM 2.5**

INPUT: RECEIVERS
PROJECT/CONTRACT: **1360 Vine Street Project**
RUN: **Construction Trucks - Foundation 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.**
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor at 45 feet	8	1	500.0	45.0	0.00	4.92	0.00	66	10.0	8.0	Y

RESULTS: SOUND LEVELS **1360 Vine Street Project**

Eyestone Environmental **27 July 2020**
Sean Bui **TNM 2.5**
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: **1360 Vine Street Project**
RUN: **Construction Trucks - Foundation Phase**
BARRIER DESIGN: **INPUT HEIGHTS**
ATMOSPHERICS: **68 deg F, 50% RH**

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receptor at 45 feet	8	1	0.0	61.8	66	61.8	10	----	61.8	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

INPUT: ROADWAYS **1360 Vine Street Project**

Eyestone Environmental **18 February 2019**

Sean Bui **TNM 2.5**

INPUT: ROADWAYS **Average pavement type shall be used unless**

PROJECT/CONTRACT: **1360 Vine Street Project** **a State highway agency substantiates the use**

RUN: **Construction Trucks - Building Phase** **of a different type with the approval of FHWA**

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				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 **1360 Vine Street Project**

Eyestone Environmental **27 July 2020**

Sean Bui **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes

PROJECT/CONTRACT: **1360 Vine Street Project**

RUN: **Construction Trucks - Building 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	200	35	0	0	3	35	0	0	0	0
	point2	2										

INPUT: RECEIVERS **1360 Vine Street Project**

Eyestone Environmental **18 February 2019**
Sean Bui **TNM 2.5**

INPUT: RECEIVERS
PROJECT/CONTRACT: **1360 Vine Street Project**
RUN: **Construction Trucks - Building 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.**
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor at 45 feet	8	1	500.0	45.0	0.00	4.92	0.00	66	10.0	8.0	Y

RESULTS: SOUND LEVELS **1360 Vine Street Project**

Eyestone Environmental **27 July 2020**
Sean Bui **TNM 2.5**
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: **1360 Vine Street Project**
RUN: **Construction Trucks - Building Phase**
BARRIER DESIGN: **INPUT HEIGHTS**
ATMOSPHERICS: **68 deg F, 50% RH**

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receptor at 45 feet	8	1	0.0	61.9	66	61.9	10	----	61.9	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

INPUT: ROADWAYS **1360 Vine Street Project**

Eyestone Environmental **18 February 2019**

Sean Bui **TNM 2.5**

INPUT: ROADWAYS **Average pavement type shall be used unless**

PROJECT/CONTRACT: **1360 Vine Street Project** **a State highway agency substantiates the use**

RUN: **Construction Trucks - Paving Phase** **of a different type with the approval of FHWA**

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				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 **1360 Vine Street Project**

Eyestone Environmental				**27 July 2020**								
Sean Bui				**TNM 2.5**								
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:	**1360 Vine Street Project**											
RUN:	**Construction Trucks - Paving 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	20	35	0	0	3	35	0	0	0	0
	point2	2										

INPUT: RECEIVERS **1360 Vine Street Project**

Eyestone Environmental **18 February 2019**
Sean Bui **TNM 2.5**

INPUT: RECEIVERS
PROJECT/CONTRACT: **1360 Vine Street Project**
RUN: **Construction Trucks - Paving 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.**
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor at 45 feet	8	1	500.0	45.0	0.00	4.92	0.00	66	10.0	8.0	Y

RESULTS: SOUND LEVELS **1360 Vine Street Project**

Eyestone Environmental **27 July 2020**
Sean Bui **TNM 2.5**
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 1360 Vine Street Project
RUN: Construction Trucks - Paving Phase
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receptor at 45 feet	8	1	0.0	56.5	66	56.5	10	----	56.5	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

INPUT: ROADWAYS **1360 Vine**

Eyestone Environmental **2 February 2022**

Sean Bui **TNM 2.5**

INPUT: ROADWAYS **Average pavement type shall be used unless**

PROJECT/CONTRACT: **1360 Vine** **a State highway agency substantiates the use**

RUN: **Construction Trucks - Cumulative** **of a different type with the approval of FHWA**

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				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 **1360 Vine**

Eyestone Environmental **2 February 2022**

Sean Bui **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes

PROJECT/CONTRACT: **1360 Vine**

RUN: **Construction Trucks - Cumulative**

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	30	35	0	0	236	35	0	0	0	0
	point2	2										

INPUT: RECEIVERS **1360 Vine**

Eyestone Environmental **2 February 2022**
Sean Bui **TNM 2.5**

INPUT: RECEIVERS
PROJECT/CONTRACT: **1360 Vine**
RUN: **Construction Trucks - Cumulative**

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	
Receptor at 45 feet	8	1	250.0	45.0	0.00	4.92	0.00	66	10.0	8.0	Y

RESULTS: SOUND LEVELS **1360 Vine**

Eyestone Environmental **2 February 2022**

Sean Bui **TNM 2.5**

Calculated with TNM 2.5

RESULTS: SOUND LEVELS

PROJECT/CONTRACT: **1360 Vine**

RUN: **Construction Trucks - Cumulative**

BARRIER DESIGN: **INPUT HEIGHTS**

ATMOSPHERICS: **68 deg F, 50% RH**

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	With Barrier Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Receptor at 45 feet	8	1	0.0	75.0	66	75.0	10	Snd Lvl	75.0	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

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Project: 1360 Vine Project EIR

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** (for receptors 25 feet or greater)
n= **1.1** (for receptors less than 25 feet, per Caltrans procedure)

ON-SITE CONSTRUCTION ACTIVITIES

Table 1: Construction Equipment Vibration Levels (PPV) - Building Damages

Equipment	Reference Vibration Levels at 25 ft., PPV	Estimated Vibration Levels at nearest off-site building structures (distance in feet), PPV						
		Single-Story Commercial building to the North	Single-Story Commercial Building the South	Single-Story Commercial building to the west	Residential buildings to the east	Residential building to the north	Residential to the south	
		50	**60**	**85**	**10**	**70**	**78**	
Large Bulldozer	0.089	0.032	0.024	0.014	0.244	0.019	0.016	
Caisson Drilling	0.089	0.032	0.024	0.014	0.244	0.019	0.016	
Loaded Trucks	0.076	0.027	0.020	0.012	0.208	0.016	0.014	
Jackhammer	0.035	0.012	0.009	0.006	0.096	0.008	0.006	
Small bulldozer	0.003	0.001	0.001	0.001	0.008	0.001	0.001	
Significance Threshold, PPV		0.3	0.2	0.3	0.12	0.12	0.12	

Table 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						
		R1	R2	R3	R4	R5		
		75	**10**	**70**	**265**	**445**		
Large Bulldozer	87	73	99	74	56	49		
Caisson Drilling	87	73	99	74	56	49		
Loaded Trucks	86	72	98	73	55	48		
Jackhammer	79	65	91	66	48	41		
Small bulldozer	58	44	70	45	27	20		
Significance Threshold, VdB		72	72	72	72	72		

OFF-SITE CONSTRUCTION HAUL TRUCKS

Table 3: Off-Site Haul Trucks - Building Damage

Equipment	Reference Vibration Levels at 50 ft., PPV	Estimated Vibration Levels at noted distance in feet, PPV						
		20						
Typical road surface	0.00565	0.022						
Significance Threshold, PPV		0.12						

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

Table 4: 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

Operation Noise Calculations

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Project Composite Noise Calculations (CNEL)

Project: 1360 Vine Project

OFFICE OPTION

Receptor	Ambient	Traffic[a]	Mechanical		Loading	Outdoor		Project Composite	Ambient + Project	Increase
R1	58.4	59.9	48.4		25.3	53.5		61.1	62.9	4.5
R2	56.1	41.2	46.5		15.0	51.2		52.8	57.8	1.7
R3	61.5	62.5	43.5		57.0	51.7		63.9	65.9	4.4
R4	72.2	60.5	46.5		19.7	44.1		60.8	72.5	0.3
R5	70.5	55.1	44.2		14.1	47.5		56.1	70.7	0.2

[a] - traffic noise levels at each receptor is based on the traffic noise analysis for the roadway segment in front of the receptor.

		Traffic Noise Levels, CNEL								
Receptor	Roadway Segment	Existing	Existing + Project	Project Only	distance to roadway, ft	Existing	Existing + Project	barrier	distance to Center Line	adj. for distance
R1	Afton	56.2	61.5	59.9	20	57.4	62.7	0	30	-1.2
R2	Vine	52.7	53.0	41.2	350	72.0	72.3	10	45	-9.3
R3	De Longpre	62.6	65.6	62.5	20	63.8	66.8	0	30	-1.2
R4	Vine	72.0	72.3	60.5	10	72.0	72.3	0	45	0.0
R5	De Longpre	66.6	66.9	55.1	10	66.6	66.9	0	30	0.0

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ACOUSTICAL ENGINEERING SERVICES

Outdoor Mechanical Equipment Noise Calculations

Project: 1360 Vine Project

OFFICE OPTION

	Estimated Noise Levels, Leq from SOUNDPLAN		Hours of Operations Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
Receptor	Leq	CNEL	12	3	9
R1	41.7	48.4	41.7	41.7	41.7
R2	39.8	46.5	39.8	39.8	39.8
R3	36.8	43.5	36.8	36.8	36.8
R4	39.8	46.5	39.8	39.8	39.8
R5	37.5	44.2	37.5	37.5	37.5

Receptor	Ambient CNEL	Ambient + Project (CNEL)	Increase (CNEL)	ambient (Leq)	Ambient + Project (Leq)
R1	58.4	58.8	0.4	53.4	53.7
R2	56.1	56.5	0.4	49.2	49.7
R3	61.5	61.6	0.1	56.1	56.2
R4	72.2	72.2	0.0	65.4	65.4
R5	70.5	70.5	0.0	62.9	62.9

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Loading and Trash Compactor Noise Calculations

Project: 1360 Vine Project

OFFICE OPTION

	Estimated Noise Levels, Leq from SOUNDPLAN		Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
Receptor	Leq	CNEL	3	3	0
R1	28.1	25.3	22.1	28.1	0.0
R2	17.3	15.0	11.3	17.3	0.0
R3	59.8	57.0	53.8	59.8	0.0
R4	22.4	19.7	16.4	22.4	0.0
R5	16.2	14.1	10.2	16.2	0.0

Receptor	Project CNEL	Ambient CNEL	Ambient + Project (CNEL)	Increase (CNEL)	Project Noise, (Leq)	daytime ambient (Leq)	Ambient + Project (Leq)
R1	25.3	58.4	58.4	0.0	28.1	55.0	55.0
R2	15.0	56.1	56.1	0.0	17.4	55.8	55.8
R3	57.0	61.5	62.8	1.3	59.8	59.0	62.4
R4	19.7	72.2	72.2	0.0	22.4	71.7	71.7
R5	14.1	70.5	70.5	0.0	16.3	70.6	70.6

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ACOUSTICAL ENGINEERING SERVICES

Outdoor Noise Calculations

Project: 1360 Vine Project

OFFICE OPTION

					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	12	**3**	**4**
R1	48.7	40.8	49.4	53.5	49.4	49.4	45.9
R2	45.8	41.4	47.1	51.2	47.1	47.1	43.6
R3	47.3	36.2	47.6	51.7	47.6	47.6	44.1
R4	39.9	24.8	40.0	44.1	40.0	40.0	36.5
R5	43.4	23.0	43.4	47.5	43.4	43.4	39.9

Receptor	Project (CNEL)	Ambient (CNEL)	Ambient + Project (CNEL)	Increase (CNEL)	Project Noise, (Leq)	Ambient (Leq)	Ambient + Project (Leq)
R1	53.5	58.4	59.6	1.2	49.4	53.4	54.9
R2	51.2	56.1	57.3	1.2	47.1	49.2	51.3
R3	51.7	61.5	61.9	0.4	47.6	56.1	56.7
R4	44.1	72.2	72.2	0.0	40.0	65.4	65.4
R5	47.5	70.5	70.5	0.0	43.4	62.9	62.9

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ACOUSTICAL ENGINEERING SERVICES

Project Composite Noise Calculations (CNEL)

Project: 1360 Vine Project

RESIDENTIAL OPTION

Receptor	Ambient	Traffic[a]	Mechanical		Loading	Outdoor		Project Composite	Ambient + Project	Increase
R1	58.4	49.6	47.8		30.2	58.5		59.3	61.9	3.5
R2	56.1	39.4	48.2		17.2	55.2		56.1	59.1	3.0
R3	61.5	58.7	49.0		56.4	52.5		61.6	64.5	3.0
R4	72.2	58.7	47.7		20.6	52.0		59.8	72.4	0.2
R5	70.5	53.3	48.6		21.6	55.7		58.2	70.7	0.2

[a] - traffic noise levels at each receptor is based on the traffic noise analysis for the roadway segment in front of the receptor.

		Traffic Noise Levels, CNEL								
Receptor	Roadway Segment	Existing	Existing + Project	Project Only	distance to roadway, ft	Existing	Existing + Project	barrier	distance to Center Line	adj. for distance
R1	Afton	56.5	57.3	49.6	20	57.4	58.2	0	45	-0.9
R2	Vine	52.7	52.9	39.4	350	72.0	72.2	10	45	-9.3
R3	De Longpre	62.6	64.1	58.7	20	63.8	65.3	0	30	-1.2
R4	Vine	72.0	72.2	58.7	10	72.0	72.2	0	45	0.0
R5	De Longpre	66.6	66.8	53.3	10	66.6	66.8	0	30	0.0

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ACOUSTICAL ENGINEERING SERVICES

Outdoor Mechanical Equipment Noise Calculations

Project: 1360 Vine Project

RESIDENTIAL OPTION

	Estimated Noise Levels, Leq from SOUNDPLAN		Hours of Operations Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
Receptor	Leq	CNEL	12	3	9
R1	41.1	47.8	41.1	41.1	41.1
R2	41.5	48.2	41.5	41.5	41.5
R3	42.3	49.0	42.3	42.3	42.3
R4	41.0	47.7	41.0	41.0	41.0
R5	41.9	48.6	41.9	41.9	41.9

Receptor	Ambient CNEL	Ambient + Project (CNEL)	Increase (CNEL)	ambient (Leq)	Ambient + Project (Leq)
R1	58.4	58.8	0.4	53.4	53.6
R2	56.1	56.7	0.6	49.2	49.9
R3	61.5	61.7	0.2	56.1	56.3
R4	72.2	72.2	0.0	65.4	65.4
R5	70.5	70.5	0.0	62.9	62.9

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ACOUSTICAL ENGINEERING SERVICES

Loading and Trash Compactor Noise Calculations

Project: 1360 Vine Project

RESIDENTIAL OPTION

	Estimated Noise Levels, Leq from SOUNDPLAN		Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
Receptor	Leq	CNEL	3	3	0
R1	33.0	30.2	27.0	33.0	0.0
R2	19.7	17.2	13.7	19.7	0.0
R3	59.2	56.4	53.2	59.2	0.0
R4	23.3	20.6	17.3	23.3	0.0
R5	24.3	21.6	18.3	24.3	0.0

Receptor	Project CNEL	Ambient CNEL	Ambient + Project (CNEL)	Increase (CNEL)	Project Noise, (Leq)	daytime ambient (Leq)	Ambient + Project (Leq)
R1	30.2	58.4	58.4	0.0	33.0	55.0	55.0
R2	17.2	56.1	56.1	0.0	19.7	55.8	55.8
R3	56.4	61.5	62.7	1.2	59.2	59.0	62.1
R4	20.6	72.2	72.2	0.0	23.3	71.7	71.7
R5	21.6	70.5	70.5	0.0	24.3	70.6	70.6

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ACOUSTICAL ENGINEERING SERVICES

Outdoor Noise Calculations

Project: 1360 Vine Project

RESIDENTIAL OPTION

					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	12	**3**	**4**
R1	53.9	44.5	54.4	58.5	54.4	54.4	50.9
R2	50.9	38.6	51.1	55.2	51.1	51.1	47.6
R3	47.9	38.5	48.4	52.5	48.4	48.4	44.9
R4	47.7	34.1	47.9	52.0	47.9	47.9	44.4
R5	51.5	33.7	51.6	55.7	51.6	51.6	48.1

Receptor	Project (CNEL)	Ambient (CNEL)	Ambient + Project (CNEL)	Increase (CNEL)	Project Noise, (Leq)	Ambient (Leq)	Ambient + Project (Leq)
R1	58.5	58.4	61.5	3.1	54.4	53.4	56.9
R2	55.2	56.1	58.7	2.6	51.1	49.2	53.3
R3	52.5	61.5	62.0	0.5	48.4	56.1	56.8
R4	52.0	72.2	72.2	0.0	47.9	65.4	65.5
R5	55.7	70.5	70.6	0.1	51.6	62.9	63.2

1360 Vine Project - Office Option
Source Levels in dB(A) - Mechanical (Office Option)

Name	Source type	Lw dB(A)	
Mechanical (Office Option)	Point	100.0	
Mechanical (Office Option)	Point	100.0	
Mechanical (Office Option)	Point	100.0	
Mechanical (Office Option)	Point	100.0	
Mechanical (Office Option)	Point	100.0	
Mechanical (Office Option)	Point	100.0	
Mechanical (Office Option)	Point	100.0	
Mechanical (Office Option)	Point	100.0	
Mechanical (Office Option)	Point	100.0	
Mechanical (Office Option)	Point	100.0	

Source	Source type	Leq,d dB(A)	
Receiver R1 Ld 41.7 dB(A)			
Mechanical (Office Option)	Point	29.7	
Mechanical (Office Option)	Point	31.8	
Mechanical (Office Option)	Point	33.0	
Mechanical (Office Option)	Point	26.9	
Mechanical (Office Option)	Point	29.7	
Mechanical (Office Option)	Point	32.7	
Mechanical (Office Option)	Point	32.3	
Mechanical (Office Option)	Point	33.2	
Mechanical (Office Option)	Point	32.9	
Mechanical (Office Option)	Point	31.5	
Receiver R2 Ld 39.8 dB(A)			
Mechanical (Office Option)	Point	29.7	
Mechanical (Office Option)	Point	29.7	
Mechanical (Office Option)	Point	29.8	
Mechanical (Office Option)	Point	23.6	
Mechanical (Office Option)	Point	23.5	
Mechanical (Office Option)	Point	32.8	
Mechanical (Office Option)	Point	32.4	
Mechanical (Office Option)	Point	32.3	
Mechanical (Office Option)	Point	26.9	
Mechanical (Office Option)	Point	27.1	
Receiver R3 Ld 36.8 dB(A)			
Mechanical (Office Option)	Point	29.6	
Mechanical (Office Option)	Point	25.1	
Mechanical (Office Option)	Point	25.5	
Mechanical (Office Option)	Point	22.7	
Mechanical (Office Option)	Point	23.2	
Mechanical (Office Option)	Point	28.0	
Mechanical (Office Option)	Point	29.1	
Mechanical (Office Option)	Point	30.2	
Mechanical (Office Option)	Point	21.1	
Mechanical (Office Option)	Point	22.7	
Receiver R4 Ld 39.8 dB(A)			
Mechanical (Office Option)	Point	25.6	
Mechanical (Office Option)	Point	28.7	
Mechanical (Office Option)	Point	32.0	
Mechanical (Office Option)	Point	29.6	
Mechanical (Office Option)	Point	28.9	
Mechanical (Office Option)	Point	26.7	

Source	Source type	Leq,d dB(A)	
Mechanical (Office Option)	Point	28.5	
Mechanical (Office Option)	Point	30.6	
Mechanical (Office Option)	Point	31.8	
Mechanical (Office Option)	Point	31.5	
Receiver R5 Ld 37.5 dB(A)			
Mechanical (Office Option)	Point	22.4	
Mechanical (Office Option)	Point	23.0	
Mechanical (Office Option)	Point	25.0	
Mechanical (Office Option)	Point	31.7	
Mechanical (Office Option)	Point	28.9	
Mechanical (Office Option)	Point	21.2	
Mechanical (Office Option)	Point	22.4	
Mechanical (Office Option)	Point	24.1	
Mechanical (Office Option)	Point	31.4	
Mechanical (Office Option)	Point	28.8	

1360 Vine Project - Office Option
Source Levels in dB(A) - Loading (Office Option)

Name	Source type	Lw dB(A)	
Loading 1 (Office Option)	Point	102.0	
Loading 2 (Office Option)	Point	102.0	

1360 Vine Project - Office Option
Contribution level - Loading (Office Option)

Source	Source type	Leq,d dB(A)	
Receiver R1 Ld 28.1 dB(A)			
Loading 2 (Office Option)	Point	27.8	
Loading 1 (Office Option)	Point	15.7	
Receiver R2 Ld 17.3 dB(A)			
Loading 2 (Office Option)	Point	14.4	
Loading 1 (Office Option)	Point	14.2	
Receiver R3 Ld 59.8 dB(A)			
Loading 2 (Office Option)	Point	56.7	
Loading 1 (Office Option)	Point	56.8	
Receiver R4 Ld 22.4 dB(A)			
Loading 2 (Office Option)	Point	10.1	
Loading 1 (Office Option)	Point	22.1	
Receiver R5 Ld 16.2 dB(A)			
Loading 2 (Office Option)	Point	13.6	
Loading 1 (Office Option)	Point	12.8	

1360 Vine Project - Office Option
Source Levels in dB(A) - People (Office Option)

Name	Source type	Lw dB(A)	
People Level 1 Office Option	Area	85.9	
People Level 17 (Office Option)	Area	91.0	

1360 Vine Project - Office Option
Contribution level - People (Office Option)

Source	Source type	Leq,d dB(A)	
Receiver R1 Ld 40.8 dB(A)			
People Level 1 Office Option	Area	40.8	
People Level 17 (Office Option)	Area	17.6	
Receiver R2 Ld 41.4 dB(A)			
People Level 1 Office Option	Area	41.4	
People Level 17 (Office Option)	Area	22.0	
Receiver R3 Ld 36.2 dB(A)			
People Level 1 Office Option	Area	35.7	
People Level 17 (Office Option)	Area	26.4	
Receiver R4 Ld 24.8 dB(A)			
People Level 1 Office Option	Area	24.3	
People Level 17 (Office Option)	Area	15.3	
Receiver R5 Ld 23.0 dB(A)			
People Level 1 Office Option	Area	6.6	
People Level 17 (Office Option)	Area	22.9	

1360 Vine Project - Office Option
Source Levels in dB(A) - Speakers (Office Option)

Name	Source type	Lw dB(A)	
Speaker Level 1 (Office Option)	Point	93.6	
Speaker Level 1 (Office Option)	Point	93.6	
Speaker Level 1 (Office Option)	Point	93.6	
Speaker Level 1 (Office Option)	Point	93.6	
Speaker Level 1 (Office Option)	Point	93.6	
Speaker Level 1 (Office Option)	Point	93.6	
Speakers Level 17 (Office Option)	Point	118.6	
Speakers Level 17 (Office Option)	Point	118.6	
Speakers Level 17 (Office Option)	Point	118.6	
Speakers Level 17 (Office Option)	Point	118.6	
Speakers Level 17 (Office Option)	Point	118.6	
Speakers Level 17 (Office Option)	Point	118.6	

Source	Source type	Leq,d dB(A)	
Receiver R1 Ld 48.7 dB(A)			
Speaker Level 1 (Office Option)	Point	35.7	
Speaker Level 1 (Office Option)	Point	38.3	
Speaker Level 1 (Office Option)	Point	37.6	
Speaker Level 1 (Office Option)	Point	45.7	
Speaker Level 1 (Office Option)	Point	39.0	
Speaker Level 1 (Office Option)	Point	39.3	
Speakers Level 17 (Office Option)	Point	26.0	
Speakers Level 17 (Office Option)	Point	28.6	
Speakers Level 17 (Office Option)	Point	21.9	
Speakers Level 17 (Office Option)	Point	21.1	
Speakers Level 17 (Office Option)	Point	31.9	
Speakers Level 17 (Office Option)	Point	32.7	
Receiver R2 Ld 45.8 dB(A)			
Speaker Level 1 (Office Option)	Point	40.7	
Speaker Level 1 (Office Option)	Point	34.9	
Speaker Level 1 (Office Option)	Point	30.3	
Speaker Level 1 (Office Option)	Point	31.9	
Speaker Level 1 (Office Option)	Point	33.5	
Speaker Level 1 (Office Option)	Point	30.7	
Speakers Level 17 (Office Option)	Point	33.4	
Speakers Level 17 (Office Option)	Point	40.8	
Speakers Level 17 (Office Option)	Point	23.3	
Speakers Level 17 (Office Option)	Point	22.5	
Speakers Level 17 (Office Option)	Point	30.5	
Speakers Level 17 (Office Option)	Point	31.6	
Receiver R3 Ld 47.3 dB(A)			
Speaker Level 1 (Office Option)	Point	26.8	
Speaker Level 1 (Office Option)	Point	25.3	
Speaker Level 1 (Office Option)	Point	25.9	
Speaker Level 1 (Office Option)	Point	32.4	
Speaker Level 1 (Office Option)	Point	28.4	
Speaker Level 1 (Office Option)	Point	33.5	
Speakers Level 17 (Office Option)	Point	38.1	
Speakers Level 17 (Office Option)	Point	39.5	
Speakers Level 17 (Office Option)	Point	35.1	
Speakers Level 17 (Office Option)	Point	34.5	
Speakers Level 17 (Office Option)	Point	40.7	
Speakers Level 17 (Office Option)	Point	41.6	
Receiver R4 Ld 39.9 dB(A)			

Source	Source type	Leq,d dB(A)	
Speaker Level 1 (Office Option)	Point	4.9	
Speaker Level 1 (Office Option)	Point	21.3	
Speaker Level 1 (Office Option)	Point	21.6	
Speaker Level 1 (Office Option)	Point	11.8	
Speaker Level 1 (Office Option)	Point	23.0	
Speaker Level 1 (Office Option)	Point	13.6	
Speakers Level 17 (Office Option)	Point	37.6	
Speakers Level 17 (Office Option)	Point	24.5	
Speakers Level 17 (Office Option)	Point	17.0	
Speakers Level 17 (Office Option)	Point	17.4	
Speakers Level 17 (Office Option)	Point	33.0	
Speakers Level 17 (Office Option)	Point	30.3	
Receiver R5 Ld 43.4 dB(A)			
Speaker Level 1 (Office Option)	Point	-6.3	
Speaker Level 1 (Office Option)	Point	-7.1	
Speaker Level 1 (Office Option)	Point	-7.0	
Speaker Level 1 (Office Option)	Point	-2.6	
Speaker Level 1 (Office Option)	Point	4.8	
Speaker Level 1 (Office Option)	Point	-1.3	
Speakers Level 17 (Office Option)	Point	40.5	
Speakers Level 17 (Office Option)	Point	38.3	
Speakers Level 17 (Office Option)	Point	28.6	
Speakers Level 17 (Office Option)	Point	32.0	
Speakers Level 17 (Office Option)	Point	29.5	
Speakers Level 17 (Office Option)	Point	29.0	

1360 Vine Project - Residential Option
Source Levels in dB(A) - Mechanical (Residential Option)

Name	Source type	Lw dB(A)	
MECHANICAL 1 (Residential Option)	Point	100.0	
MECHANICAL 2 (Residential Option)	Point	100.0	
MECHANICAL 3 (Residential Option)	Point	100.0	
MECHANICAL 4 (Residential Option)	Point	100.0	
MECHANICAL 5 (Residential Option)	Point	100.0	
MECHANICAL 6 (Residential Option)	Point	100.0	
MECHANICAL 7 (Residential Option)	Point	100.0	
MECHANICAL 8 (Residential Option)	Point	100.0	
MECHANICAL 9 (Residential Option)	Point	100.0	
MECHANICAL 10 (Residential Option)	Point	100.0	
MECHANICAL 11 (Residential Option)	Point	100.0	
MECHANICAL 12 (Residential Option)	Point	100.0	

1360 Vine Project - Residential Option
Assessed contribution level - Mechanical (Residential Option)

Source	Ld dB(A)	
Receiver R1 Ld 41.1 dB(A)		
MECHANICAL 1 (Residential Option)	28.2	
MECHANICAL 2 (Residential Option)	28.8	
MECHANICAL 3 (Residential Option)	29.2	
MECHANICAL 4 (Residential Option)	28.8	
MECHANICAL 5 (Residential Option)	30.1	
MECHANICAL 6 (Residential Option)	29.5	
MECHANICAL 7 (Residential Option)	33.9	
MECHANICAL 8 (Residential Option)	29.5	
MECHANICAL 9 (Residential Option)	29.2	
MECHANICAL 10 (Residential Option)	30.5	
MECHANICAL 11 (Residential Option)	28.9	
MECHANICAL 12 (Residential Option)	33.0	
Receiver R2 Ld 41.5 dB(A)		
MECHANICAL 1 (Residential Option)	27.8	
MECHANICAL 2 (Residential Option)	29.6	
MECHANICAL 3 (Residential Option)	29.0	
MECHANICAL 4 (Residential Option)	27.9	
MECHANICAL 5 (Residential Option)	29.3	
MECHANICAL 6 (Residential Option)	32.2	
MECHANICAL 7 (Residential Option)	32.4	
MECHANICAL 8 (Residential Option)	32.2	
MECHANICAL 9 (Residential Option)	32.2	
MECHANICAL 10 (Residential Option)	32.2	
MECHANICAL 11 (Residential Option)	29.5	
MECHANICAL 12 (Residential Option)	29.9	
Receiver R3 Ld 42.3 dB(A)		
MECHANICAL 1 (Residential Option)	32.3	
MECHANICAL 2 (Residential Option)	28.6	
MECHANICAL 3 (Residential Option)	29.1	
MECHANICAL 4 (Residential Option)	29.4	
MECHANICAL 5 (Residential Option)	28.9	
MECHANICAL 6 (Residential Option)	34.4	
MECHANICAL 7 (Residential Option)	32.5	
MECHANICAL 8 (Residential Option)	32.9	
MECHANICAL 9 (Residential Option)	32.6	
MECHANICAL 10 (Residential Option)	31.8	
MECHANICAL 11 (Residential Option)	32.0	
MECHANICAL 12 (Residential Option)	29.2	

1360 Vine Project - Residential Option
Assessed contribution level - Mechanical (Residential Option)

Source	Ld dB(A)	
Receiver R4 Ld 41.0 dB(A)		
MECHANICAL 1 (Residential Option)	28.4	
MECHANICAL 2 (Residential Option)	33.4	
MECHANICAL 3 (Residential Option)	28.2	
MECHANICAL 4 (Residential Option)	28.1	
MECHANICAL 5 (Residential Option)	29.8	
MECHANICAL 6 (Residential Option)	26.4	
MECHANICAL 7 (Residential Option)	33.2	
MECHANICAL 8 (Residential Option)	28.0	
MECHANICAL 9 (Residential Option)	27.2	
MECHANICAL 10 (Residential Option)	30.0	
MECHANICAL 11 (Residential Option)	27.0	
MECHANICAL 12 (Residential Option)	33.4	
Receiver R5 Ld 41.9 dB(A)		
MECHANICAL 1 (Residential Option)	33.4	
MECHANICAL 2 (Residential Option)	33.3	
MECHANICAL 3 (Residential Option)	33.3	
MECHANICAL 4 (Residential Option)	33.4	
MECHANICAL 5 (Residential Option)	33.3	
MECHANICAL 6 (Residential Option)	27.8	
MECHANICAL 7 (Residential Option)	27.5	
MECHANICAL 8 (Residential Option)	27.6	
MECHANICAL 9 (Residential Option)	27.7	
MECHANICAL 10 (Residential Option)	27.5	
MECHANICAL 11 (Residential Option)	29.6	
MECHANICAL 12 (Residential Option)	29.1	

1360 Vine Project - Residential Option
Source Levels in dB(A) - Loading (Residential Option)

Name	Source type	Lw dB(A)	
Loading 1 (Residential Option)	Point	102.0	
Loading 2 (Residential Option)	Point	102.0	

1360 Vine Project - Residential Option
Assessed contribution level - Loading (Residential Option)

Source	Source type	Ld dB(A)	
Receiver R1 Fl G Ld 33.0 dB(A)			
Loading 1 (Residential Option)	Point	30.0	
Loading 2 (Residential Option)	Point	29.9	
Receiver R2 Fl G Ld 19.7 dB(A)			
Loading 1 (Residential Option)	Point	16.8	
Loading 2 (Residential Option)	Point	16.7	
Receiver R3 Fl G Ld 59.2 dB(A)			
Loading 1 (Residential Option)	Point	56.5	
Loading 2 (Residential Option)	Point	56.0	
Receiver R4 Fl G Ld 23.3 dB(A)			
Loading 1 (Residential Option)	Point	12.2	
Loading 2 (Residential Option)	Point	23.0	
Receiver R5 Fl G Ld 24.3 dB(A)			
Loading 1 (Residential Option)	Point	23.0	
Loading 2 (Residential Option)	Point	18.3	

1360 Vine Project - Residential Option
Source Levels in dB(A) - People (Residential Option)

Name	Source type	Lw dB(A)	
Level 10 People (Residential Option)	Area	95.4	
People Level 1 (Residential Option)	Area	85.3	

1360 Vine Project - Residential Option
Assessed contribution level - People (Residential Option)

Source	Ld dB(A)	
Receiver R1 Ld 44.5 dB(A)		
People Level 1 (Residential Option)	44.2	
Level 10 People (Residential Option)	33.2	
Receiver R2 Ld 38.6 dB(A)		
People Level 1 (Residential Option)	36.6	
Level 10 People (Residential Option)	34.3	
Receiver R3 Ld 38.5 dB(A)		
People Level 1 (Residential Option)	37.7	
Level 10 People (Residential Option)	31.0	
Receiver R4 Ld 34.1 dB(A)		
People Level 1 (Residential Option)	19.7	
Level 10 People (Residential Option)	33.9	
Receiver R5 Ld 33.7 dB(A)		
People Level 1 (Residential Option)	9.4	
Level 10 People (Residential Option)	33.6	

1360 Vine Project - Residential Option
Source Levels in dB(A) - Speakers (Residential Option)

Name	Source type	Lw dB(A)	
Speakers Level 1 (Residential Option)	Point	93.6	
Speakers Level 1 (Residential Option)	Point	93.6	
Speakers Level 1 (Residential Option)	Point	93.6	
Speakers Level 1 (Residential Option)	Point	93.6	
Speakers Level 1 (Residential Option)	Point	93.6	
Speakers Level 1 (Residential Option)	Point	93.6	
Speakers Level 1 (Residential Option)	Point	93.6	
Speakers Level 1 (Residential Option)	Point	93.6	
Speakers Level 10 (Residential Option)	Point	118.6	
Speakers Level 10 (Residential Option)	Point	118.6	
Speakers Level 10 (Residential Option)	Point	118.6	
Speakers Level 10 (Residential Option)	Point	118.6	
Speakers Level 10 (Residential Option)	Point	118.6	
Speakers Level 10 (Residential Option)	Point	118.6	

1360 Vine Project - Residential Option
Assessed contribution level - Speakers (Residential Option)

Source	Ld dB(A)	
Receiver R1 Ld 53.9 dB(A)		
Speakers Level 1 (Residential Option)	48.9	
Speakers Level 1 (Residential Option)	34.7	
Speakers Level 1 (Residential Option)	37.8	
Speakers Level 1 (Residential Option)	42.5	
Speakers Level 1 (Residential Option)	31.2	
Speakers Level 1 (Residential Option)	44.3	
Speakers Level 1 (Residential Option)	28.3	
Speakers Level 1 (Residential Option)	46.8	
Speakers Level 10 (Residential Option)	43.7	
Speakers Level 10 (Residential Option)	34.8	
Speakers Level 10 (Residential Option)	41.1	
Speakers Level 10 (Residential Option)	34.3	
Speakers Level 10 (Residential Option)	34.3	
Speakers Level 10 (Residential Option)	43.0	
Receiver R2 Ld 50.9 dB(A)		
Speakers Level 1 (Residential Option)	32.1	
Speakers Level 1 (Residential Option)	35.0	
Speakers Level 1 (Residential Option)	41.4	
Speakers Level 1 (Residential Option)	29.4	
Speakers Level 1 (Residential Option)	37.3	
Speakers Level 1 (Residential Option)	33.1	
Speakers Level 1 (Residential Option)	30.9	
Speakers Level 1 (Residential Option)	10.3	
Speakers Level 10 (Residential Option)	45.5	
Speakers Level 10 (Residential Option)	33.5	
Speakers Level 10 (Residential Option)	46.9	
Speakers Level 10 (Residential Option)	33.2	
Speakers Level 10 (Residential Option)	33.2	
Speakers Level 10 (Residential Option)	36.9	

Source	Ld dB(A)	
Receiver R3 Ld 47.9 dB(A)		
Speakers Level 1 (Residential Option)	38.9	
Speakers Level 1 (Residential Option)	27.3	
Speakers Level 1 (Residential Option)	27.6	
Speakers Level 1 (Residential Option)	30.7	
Speakers Level 1 (Residential Option)	30.8	
Speakers Level 1 (Residential Option)	44.5	
Speakers Level 1 (Residential Option)	36.7	
Speakers Level 1 (Residential Option)	6.6	
Speakers Level 10 (Residential Option)	39.2	
Speakers Level 10 (Residential Option)	33.5	
Speakers Level 10 (Residential Option)	37.8	
Speakers Level 10 (Residential Option)	25.5	
Speakers Level 10 (Residential Option)	25.7	
Speakers Level 10 (Residential Option)	24.6	
Receiver R4 Ld 47.7 dB(A)		
Speakers Level 1 (Residential Option)	17.0	
Speakers Level 1 (Residential Option)	21.1	
Speakers Level 1 (Residential Option)	0.9	
Speakers Level 1 (Residential Option)	27.6	
Speakers Level 1 (Residential Option)	13.7	
Speakers Level 1 (Residential Option)	-0.6	
Speakers Level 1 (Residential Option)	5.1	
Speakers Level 1 (Residential Option)	33.9	
Speakers Level 10 (Residential Option)	40.5	
Speakers Level 10 (Residential Option)	41.7	
Speakers Level 10 (Residential Option)	33.8	
Speakers Level 10 (Residential Option)	38.5	
Speakers Level 10 (Residential Option)	37.9	
Speakers Level 10 (Residential Option)	41.5	

1360 Vine Project - Residential Option
Assessed contribution level - Speakers (Residential Option)

Source	Ld dB(A)	
Receiver R5 Ld 51.5 dB(A)		
Speakers Level 1 (Residential Option)	-2.1	
Speakers Level 1 (Residential Option)	11.0	
Speakers Level 1 (Residential Option)	-4.3	
Speakers Level 1 (Residential Option)	9.1	
Speakers Level 1 (Residential Option)	-1.8	
Speakers Level 1 (Residential Option)	0.8	
Speakers Level 1 (Residential Option)	0.4	
Speakers Level 1 (Residential Option)	-3.6	
Speakers Level 10 (Residential Option)	34.2	
Speakers Level 10 (Residential Option)	46.0	
Speakers Level 10 (Residential Option)	34.4	
Speakers Level 10 (Residential Option)	46.6	
Speakers Level 10 (Residential Option)	46.9	
Speakers Level 10 (Residential Option)	22.2	

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Off-Site Traffic Noise Calculations

Project: 1360 Vine Project - RESIDENTIAL OPTION

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	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Vine Street										
- Between Hollywood Blvd. and Sunset Blvd.	70	10	45	35	2,163	21,630	10%	0	0	71.7
- Between Sunset Blvd. and De Longpre Ave.	70	10	45	35	2,355	23,550	10%	0	0	72.1
- Between De Longpre Ave. and Fountain Ave.	70	10	45	35	2,332	23,320	10%	0	0	72.0
- Between Fountain Ave. and Santa Monica	70	10	45	35	2,325	23,250	10%	0	0	72.0
Sunset Boulevard										
- Between Ivar Ave. and Vine St.	70	10	45	35	2,558	25,580	10%	0	0	72.4
- Between Vine St. and El Centro Ave.	70	10	45	35	2,712	27,120	10%	0	0	72.7
De Longpre										
- Between Ivar Ave. and Vine St.	40	10	30	30	456	4,560	10%	0	0	66.6
- Between Vine St. and El Centro Ave.	40	10	30	30	238	2,380	10%	0	0	63.8
Fountain Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	30	983	9,830	10%	0	0	70.0
- Between Vine St. and El Centro Ave.	40	10	30	30	973	9,730	10%	0	0	69.9
Homewood Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	25	46	460	10%	0	0	56.9
Afton Place										
- Between Vine St. and El Centro Ave.	40	10	30	25	52	520	10%	0	0	57.4

* Estimated based on Google Earth map.

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

Date Printed: 8/24/2021

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Off-Site Traffic Noise Calculations

Project: 1360 Vine Project - RESIDENTIAL OPTION

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 (SCENARIO 1)

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Vine Street										
- Between Hollywood Blvd. and Sunset Blvd.	70	10	45	35	2,175	21,750	10%	0	0	71.7
- Between Sunset Blvd. and De Longpre Ave.	70	10	45	35	2,409	24,090	10%	0	0	72.2
- Between De Longpre Ave. and Fountain Ave.	70	10	45	35	2,417	24,170	10%	0	0	72.2
- Between Fountain Ave. and Santa Monica	70	10	45	35	2,354	23,540	10%	0	0	72.1
Sunset Boulevard										
- Between Ivar Ave. and Vine St.	70	10	45	35	2,591	25,910	10%	0	0	72.5
- Between Vine St. and El Centro Ave.	70	10	45	35	2,722	27,220	10%	0	0	72.7
De Longpre										
- Between Ivar Ave. and Vine St.	40	10	30	30	475	4,750	10%	0	0	66.8
- Between Vine St. and El Centro Ave.	40	10	30	30	331	3,310	10%	0	0	65.3
Fountain Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	30	1,036	10,360	10%	0	0	70.2
- Between Vine St. and El Centro Ave.	40	10	30	30	985	9,850	10%	0	0	70.0
Homewood Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	25	47	470	10%	0	0	57.0
Afton Place										
- Between Vine St. and El Centro Ave.	40	10	30	25	63	630	10%	0	0	58.2

* Estimated based on Google Earth map.

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

Date Printed: 8/24/2021

AES
ACOUSTICAL ENGINEERING SERVICES

Off-Site Traffic Noise Calculations

Project: 1360 Vine Project - RESIDENTIAL OPTION

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	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Vine Street										
- Between Hollywood Blvd. and Sunset Blvd.	70	10	45	35	2,592	25,920	10%	0	0	72.5
- Between Sunset Blvd. and De Longpre Ave.	70	10	45	35	2,938	29,380	10%	0	0	73.0
- Between De Longpre Ave. and Fountain Ave.	70	10	45	35	2,910	29,100	10%	0	0	73.0
- Between Fountain Ave. and Santa Monica	70	10	45	35	2,909	29,090	10%	0	0	73.0
Sunset Boulevard										
- Between Ivar Ave. and Vine St.	70	10	45	35	3,851	38,510	10%	0	0	74.2
- Between Vine St. and El Centro Ave.	70	10	45	35	4,182	41,820	10%	0	0	74.6
De Longpre										
- Between Ivar Ave. and Vine St.	40	10	30	30	708	7,080	10%	0	0	68.6
- Between Vine St. and El Centro Ave.	40	10	30	30	257	2,570	10%	0	0	64.2
Fountain Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	30	1,157	11,570	10%	0	0	70.7
- Between Vine St. and El Centro Ave.	40	10	30	30	1,110	11,100	10%	0	0	70.5
Homewood Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	25	132	1,320	10%	0	0	61.5
Afton Place										
- Between Vine St. and El Centro Ave.	40	10	30	25	54	540	10%	0	0	57.6

* Estimated based on Google Earth map.

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Off-Site Traffic Noise Calculations

Project: 1360 Vine Project - RESIDENTIAL OPTION

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 (SCENARIO 1)

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Vine Street										
- Between Hollywood Blvd. and Sunset Blvd.	70	10	45	35	2,604	26,040	10%	0	0	72.5
- Between Sunset Blvd. and De Longpre Ave.	70	10	45	35	2,992	29,920	10%	0	0	73.1
- Between De Longpre Ave. and Fountain Ave.	70	10	45	35	2,995	29,950	10%	0	0	73.1
- Between Fountain Ave. and Santa Monica	70	10	45	35	2,938	29,380	10%	0	0	73.0
Sunset Boulevard										
- Between Ivar Ave. and Vine St.	70	10	45	35	3,884	38,840	10%	0	0	74.2
- Between Vine St. and El Centro Ave.	70	10	45	35	4,192	41,920	10%	0	0	74.6
De Longpre										
- Between Ivar Ave. and Vine St.	40	10	30	30	727	7,270	10%	0	0	68.7
- Between Vine St. and El Centro Ave.	40	10	30	30	350	3,500	10%	0	0	65.5
Fountain Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	30	1,210	12,100	10%	0	0	70.9
- Between Vine St. and El Centro Ave.	40	10	30	30	1,122	11,220	10%	0	0	70.6
Homewood Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	25	134	1,340	10%	0	0	61.5
Afton Place										
- Between Vine St. and El Centro Ave.	40	10	30	25	65	650	10%	0	0	58.4

* Estimated based on Google Earth map.

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Off-Site Traffic Noise Calculations

Project: 1360 Vine Project - OFFICE OPTION

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	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Vine Street										
- Between Hollywood Blvd. and Sunset Blvd.	70	10	45	35	2,163	21,630	10%	0	0	71.7
- Between Sunset Blvd. and De Longpre Ave.	70	10	45	35	2,355	23,550	10%	0	0	72.1
- Between De Longpre Ave. and Fountain Ave.	70	10	45	35	2,332	23,320	10%	0	0	72.0
- Between Fountain Ave. and Santa Monica	70	10	45	35	2,325	23,250	10%	0	0	72.0
Sunset Boulevard										
- Between Ivar Ave. and Vine St.	70	10	45	35	2,558	25,580	10%	0	0	72.4
- Between Vine St. and El Centro Ave.	70	10	45	35	2,712	27,120	10%	0	0	72.7
De Longpre										
- Between Ivar Ave. and Vine St.	40	10	30	30	456	4,560	10%	0	0	66.6
- Between Vine St. and El Centro Ave.	40	10	30	30	238	2,380	10%	0	0	63.8
Fountain Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	30	983	9,830	10%	0	0	70.0
- Between Vine St. and El Centro Ave.	40	10	30	30	973	9,730	10%	0	0	69.9
Homewood Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	25	46	460	10%	0	0	56.9
Afton Place										
- Between Vine St. and El Centro Ave.	40	10	30	25	52	520	10%	0	0	57.4

* Estimated based on Google Earth map.

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

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Off-Site Traffic Noise Calculations

Project: 1360 Vine Project - OFFICE OPTION

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 (SCENARIO 1)

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Vine Street										
- Between Hollywood Blvd. and Sunset Blvd.	70	10	45	35	2,184	21,840	10%	0	0	71.7
- Between Sunset Blvd. and De Longpre Ave.	70	10	45	35	2,495	24,950	10%	0	0	72.3
- Between De Longpre Ave. and Fountain Ave.	70	10	45	35	2,447	24,470	10%	0	0	72.2
- Between Fountain Ave. and Santa Monica	70	10	45	35	2,391	23,910	10%	0	0	72.1
Sunset Boulevard										
- Between Ivar Ave. and Vine St.	70	10	45	35	2,617	26,170	10%	0	0	72.5
- Between Vine St. and El Centro Ave.	70	10	45	35	2,772	27,720	10%	0	0	72.8
De Longpre										
- Between Ivar Ave. and Vine St.	40	10	30	30	485	4,850	10%	0	0	66.9
- Between Vine St. and El Centro Ave.	40	10	30	30	440	4,400	10%	0	0	66.5
Fountain Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	30	1,057	10,570	10%	0	0	70.3
- Between Vine St. and El Centro Ave.	40	10	30	30	984	9,840	10%	0	0	70.0
Homewood Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	25	46	460	10%	0	0	56.9
Afton Place										
- Between Vine St. and El Centro Ave.	40	10	30	25	58	580	10%	0	0	57.9

* Estimated based on Google Earth map.

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

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Off-Site Traffic Noise Calculations

Project: 1360 Vine Project - OFFICE OPTION

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 (SCENARIO 2)

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Vine Street										
- Between Hollywood Blvd. and Sunset Blvd.	70	10	45	35	2,188	21,880	10%	0	0	71.8
- Between Sunset Blvd. and De Longpre Ave.	70	10	45	35	2,505	25,050	10%	0	0	72.3
- Between De Longpre Ave. and Fountain Ave.	70	10	45	35	2,435	24,350	10%	0	0	72.2
- Between Fountain Ave. and Santa Monica	70	10	45	35	2,389	23,890	10%	0	0	72.1
Sunset Boulevard										
- Between Ivar Ave. and Vine St.	70	10	45	35	2,620	26,200	10%	0	0	72.5
- Between Vine St. and El Centro Ave.	70	10	45	35	2,776	27,760	10%	0	0	72.8
De Longpre										
- Between Ivar Ave. and Vine St.	40	10	30	30	483	4,830	10%	0	0	66.9
- Between Vine St. and El Centro Ave.	40	10	30	30	472	4,720	10%	0	0	66.8
Fountain Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	30	1,058	10,580	10%	0	0	70.3
- Between Vine St. and El Centro Ave.	40	10	30	30	974	9,740	10%	0	0	69.9
Homewood Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	25	46	460	10%	0	0	56.9
Afton Place										
- Between Vine St. and El Centro Ave.	40	10	30	25	135	1,350	10%	0	0	61.6

* Estimated based on Google Earth map.

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

Date Printed: 8/24/2021

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Off-Site Traffic Noise Calculations

Project: 1360 Vine Project - OFFICE OPTION

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 (SCENARIO 3)

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Vine Street										
- Between Hollywood Blvd. and Sunset Blvd.	70	10	45	35	2,188	21,880	10%	0	0	71.8
- Between Sunset Blvd. and De Longpre Ave.	70	10	45	35	2,505	25,050	10%	0	0	72.3
- Between De Longpre Ave. and Fountain Ave.	70	10	45	35	2,454	24,540	10%	0	0	72.3
- Between Fountain Ave. and Santa Monica	70	10	45	35	2,430	24,300	10%	0	0	72.2
Sunset Boulevard										
- Between Ivar Ave. and Vine St.	70	10	45	35	2,620	26,200	10%	0	0	72.5
- Between Vine St. and El Centro Ave.	70	10	45	35	2,776	27,760	10%	0	0	72.8
De Longpre										
- Between Ivar Ave. and Vine St.	40	10	30	30	483	4,830	10%	0	0	66.9
- Between Vine St. and El Centro Ave.	40	10	30	30	472	4,720	10%	0	0	66.8
Fountain Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	30	1,058	10,580	10%	0	0	70.3
- Between Vine St. and El Centro Ave.	40	10	30	30	992	9,920	10%	0	0	70.0
Homewood Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	25	46	460	10%	0	0	56.9
Afton Place										
- Between Vine St. and El Centro Ave.	40	10	30	25	177	1,770	10%	0	0	62.7

* Estimated based on Google Earth map.

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

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Off-Site Traffic Noise Calculations

Project: 1360 Vine Project - OFFICE OPTION

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	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Vine Street										
- Between Hollywood Blvd. and Sunset Blvd.	70	10	45	35	2,592	25,920	10%	0	0	72.5
- Between Sunset Blvd. and De Longpre Ave.	70	10	45	35	2,938	29,380	10%	0	0	73.0
- Between De Longpre Ave. and Fountain Ave.	70	10	45	35	2,910	29,100	10%	0	0	73.0
- Between Fountain Ave. and Santa Monica	70	10	45	35	2,909	29,090	10%	0	0	73.0
Sunset Boulevard										
- Between Ivar Ave. and Vine St.	70	10	45	35	3,851	38,510	10%	0	0	74.2
- Between Vine St. and El Centro Ave.	70	10	45	35	4,182	41,820	10%	0	0	74.6
De Longpre										
- Between Ivar Ave. and Vine St.	40	10	30	30	708	7,080	10%	0	0	68.6
- Between Vine St. and El Centro Ave.	40	10	30	30	257	2,570	10%	0	0	64.2
Fountain Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	30	1,157	11,570	10%	0	0	70.7
- Between Vine St. and El Centro Ave.	40	10	30	30	1,110	11,100	10%	0	0	70.5
Homewood Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	25	132	1,320	10%	0	0	61.5
Afton Place										
- Between Vine St. and El Centro Ave.	40	10	30	25	54	540	10%	0	0	57.6

* Estimated based on Google Earth map.

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Off-Site Traffic Noise Calculations

Project: 1360 Vine Project - OFFICE OPTION

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 (SCENARIO 1)

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Vine Street										
- Between Hollywood Blvd. and Sunset Blvd.	70	10	45	35	2,613	26,130	10%	0	0	72.5
- Between Sunset Blvd. and De Longpre Ave.	70	10	45	35	3,079	30,790	10%	0	0	73.2
- Between De Longpre Ave. and Fountain Ave.	70	10	45	35	3,025	30,250	10%	0	0	73.2
- Between Fountain Ave. and Santa Monica	70	10	45	35	2,975	29,750	10%	0	0	73.1
Sunset Boulevard										
- Between Ivar Ave. and Vine St.	70	10	45	35	3,910	39,100	10%	0	0	74.3
- Between Vine St. and El Centro Ave.	70	10	45	35	4,243	42,430	10%	0	0	74.6
De Longpre										
- Between Ivar Ave. and Vine St.	40	10	30	30	737	7,370	10%	0	0	68.7
- Between Vine St. and El Centro Ave.	40	10	30	30	459	4,590	10%	0	0	66.7
Fountain Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	30	1,231	12,310	10%	0	0	71.0
- Between Vine St. and El Centro Ave.	40	10	30	30	1,121	11,210	10%	0	0	70.6
Homewood Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	25	133	1,330	10%	0	0	61.5
Afton Place										
- Between Vine St. and El Centro Ave.	40	10	30	25	60	600	10%	0	0	58.0

* Estimated based on Google Earth map.

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Off-Site Traffic Noise Calculations

Project: 1360 Vine Project - OFFICE OPTION

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 (SCENARIO 2)

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Vine Street										
- Between Hollywood Blvd. and Sunset Blvd.	70	10	45	35	2,616	26,160	10%	0	0	72.5
- Between Sunset Blvd. and De Longpre Ave.	70	10	45	35	3,088	30,880	10%	0	0	73.3
- Between De Longpre Ave. and Fountain Ave.	70	10	45	35	3,012	30,120	10%	0	0	73.1
- Between Fountain Ave. and Santa Monica	70	10	45	35	2,973	29,730	10%	0	0	73.1
Sunset Boulevard										
- Between Ivar Ave. and Vine St.	70	10	45	35	3,913	39,130	10%	0	0	74.3
- Between Vine St. and El Centro Ave.	70	10	45	35	4,246	42,460	10%	0	0	74.6
De Longpre										
- Between Ivar Ave. and Vine St.	40	10	30	30	735	7,350	10%	0	0	68.7
- Between Vine St. and El Centro Ave.	40	10	30	30	491	4,910	10%	0	0	67.0
Fountain Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	30	1,232	12,320	10%	0	0	71.0
- Between Vine St. and El Centro Ave.	40	10	30	30	1,111	11,110	10%	0	0	70.5
Homewood Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	25	132	1,320	10%	0	0	61.5
Afton Place										
- Between Vine St. and El Centro Ave.	40	10	30	25	137	1,370	10%	0	0	61.6

* Estimated based on Google Earth map.

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Off-Site Traffic Noise Calculations

Project: 1360 Vine Project - OFFICE OPTION

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 (SCENARIO 3)

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Vine Street										
- Between Hollywood Blvd. and Sunset Blvd.	70	10	45	35	2,616	26,160	10%	0	0	72.5
- Between Sunset Blvd. and De Longpre Ave.	70	10	45	35	3,088	30,880	10%	0	0	73.3
- Between De Longpre Ave. and Fountain Ave.	70	10	45	35	3,032	30,320	10%	0	0	73.2
- Between Fountain Ave. and Santa Monica	70	10	45	35	3,014	30,140	10%	0	0	73.1
Sunset Boulevard										
- Between Ivar Ave. and Vine St.	70	10	45	35	3,913	39,130	10%	0	0	74.3
- Between Vine St. and El Centro Ave.	70	10	45	35	4,246	42,460	10%	0	0	74.6
De Longpre										
- Between Ivar Ave. and Vine St.	40	10	30	30	735	7,350	10%	0	0	68.7
- Between Vine St. and El Centro Ave.	40	10	30	30	491	4,910	10%	0	0	67.0
Fountain Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	30	1,232	12,320	10%	0	0	71.0
- Between Vine St. and El Centro Ave.	40	10	30	30	1,130	11,300	10%	0	0	70.6
Homewood Avenue										
- Between Ivar Ave. and Vine St.	40	10	30	25	132	1,320	10%	0	0	61.5
Afton Place										
- Between Vine St. and El Centro Ave.	40	10	30	25	179	1,790	10%	0	0	62.8

* Estimated based on Google Earth map.

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

Date Printed: 8/24/2021