Appendix F

Noise Memo and Calculation Worksheets

NEWSON BROWN
ACOUSTICS LLC

June 22nd 2016

Chris Carlin
Carlin Projects
9200 West Sunset Boulevard, Suite 900
West Hollywood, CA 90069

Subject: The Arts Club
Noise Producing Aspects of the Project

Chris,

Further to our review of the 01/29/2016 Planning Division Submittal drawings we anticipate that the potential noise producing aspects of the project are as follows:

- Noise from people entering and leaving at the "Club Entrance" (i.e. the exterior walkway) at the south side of the building. This is almost level with a balcony at the residential building to the south.
- Activity noise and music from the pool area.
- Nosie from the garage ventilation system.
- Noise from increased vehicle traffic.
- Noise from the loading dock.
- Noise from people on office terraces.
- Nosie from people on dining terraces.
- Noise from people on guest room terraces.
- Noise from emergency generators.
- Noise from outdoor items of HVAC equipment. For example:
    - Cooling towers / air cooled chillers.
    - Condensing units.
    - Air handling units and air conditioning units.
    - Makeup air units.
    - Outside air units.
    - Supply fans.
    - Exhaust fans.
    - Kitchen exhaust fans.
    - Grease exhaust fans.
    - Pollution control units.

We recommend using cooling towers and water cooled chillers instead of air cooled chillers if possible because cooling towers are typically quieter.

We recommend locating kitchen exhaust fans, grease exhaust fans and pollution control units as far from the neighboring residences as possible. In addition, these items of equipment should not be located over occupied or acoustically sensitive rooms in The Arts Club. Nosie control and vibration isolation cannot typically be added to these units.

We trust that this is adequate for your current needs. Please do not hesitate to contact us if there are any questions.

Yours Sincerely,
Newson Brown Acoustics, LLC

Ian Boorer
Principal

16-171 F:\Datafiles\PROJ\Arts Club West Hollywood\Reports\rpt1 project noise sources

Arts Club Project

Noise Calculations Worksheets

Provided by Acoustical Engineering Services

Ambient Noise Measurements

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R1
Date: 8/9/2016

Time	Overload	Leq	Lmax	L10	L90
10:29:50 AM	No	62.7	67.3	66.4	54.4
10:30:50 AM	No	58	62.9	60.2	53.8
10:31:50 AM	No	52.2	54.8	54.1	50.1
10:32:50 AM	No	54.8	59.1	58.4	50.7
10:33:50 AM	No	53.5	59.4	55.5	51.1
10:34:50 AM	No	53.2	58.5	55.5	47.7
10:35:50 AM	No	53	55.7	54.5	48.6
10:36:50 AM	No	51.6	56.5	53.6	48.6
10:37:50 AM	No	53.7	59	56.1	51.2
10:38:50 AM	No	51.9	56.5	54.2	49
10:39:50 AM	No	53.3	60.6	56.8	49.1
10:40:50 AM	No	54.2	58.8	56.5	49.5
10:41:50 AM	No	53.9	60.1	56.8	48.6
10:42:50 AM	No	52.4	57.8	54.7	47.6
10:43:50 AM	No	57	64.8	60.6	50.5
		55.7			

Time	Overload	Leq	Lmax	L10	L90
10:29:52 PM	No	52.4	57.7	55.4	49.7
10:30:52 PM	No	50	53.6	51.3	48.3
10:31:52 PM	No	53.2	55.3	54.3	51.2
10:32:52 PM	No	62.8	73.2	69	53.2
10:33:52 PM	No	50.9	53.8	52.8	48.3
10:34:52 PM	No	51.4	55	52.4	48.8
10:35:52 PM	No	50.7	53.6	52.3	48.2
10:36:52 PM	No	50.6	53.7	52.8	47.7
10:37:52 PM	No	51.8	55.9	53.9	48.8
10:38:52 PM	No	53.1	57.9	56.5	48.1
10:39:52 PM	No	53.1	57.1	55.4	50.3
10:40:52 PM	No	55.1	62.4	58.1	51.4
10:41:52 PM	No	53.3	60.6	55.9	49.7
10:42:52 PM	No	51.5	56.1	53.8	48.6
10:43:52 PM	No	51.5	55.7	53.4	48.9
		54.5			

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R2
Date: 8/9/2016

Time	Overload	Leq	Lmax	L10	L90
11:11:10 AM	No	70.4	79	74.6	58.4
11:12:10 AM	No	69.2	80.4	73.1	58.6
11:13:10 AM	No	74	84.7	78.8	58.8
11:14:10 AM	No	68.4	77.6	73.5	56.4
11:15:10 AM	No	70.1	78.6	72.9	63
11:16:10 AM	No	72.6	80.8	76.5	63.7
11:17:10 AM	No	73.8	83.2	77.5	63.9
11:18:10 AM	No	68.2	77.8	71.8	59
11:19:10 AM	No	77	86.8	81.8	63.9
11:20:10 AM	No	66.9	77.8	70.1	56.9
11:21:10 AM	No	73.8	86	77.7	59.2
11:22:10 AM	No	66.4	72.6	69.9	56.9
11:23:10 AM	No	68.7	74.5	73.2	62.8
11:24:10 AM	No	66.4	76	71	55.6
11:25:10 AM	No	66.9	75.8	70.4	52.6
		71.5			

Time	Overload	Leq	Lmax	L10	L90
11:08:05 PM	No	66.7	73.1	70	59.2
11:09:05 PM	No	65.9	73.2	70.3	57.7
11:10:05 PM	No	66.5	73.4	70.8	59.6
11:11:05 PM	No	67.1	76.6	71.7	58.3
11:12:05 PM	No	67	73.3	71.4	58.8
11:13:05 PM	No	69.3	76	73	62.7
11:14:05 PM	No	67.4	75	71.1	59.3
11:15:05 PM	No	66.9	74.1	71.5	59.3
11:16:05 PM	No	61.8	68.8	66.8	57.7
11:17:05 PM	No	68.7	77.3	72.8	58.4
11:18:05 PM	No	64.1	71.1	65.9	59.9
11:19:05 PM	No	66.7	75.5	69.6	59
11:20:05 PM	No	64.9	70.5	68.4	58.6
11:21:05 PM	No	62.5	71.4	65.9	57.6
11:22:05 PM	No	69.7	76.3	74.4	59.9
		66.8			

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R3
Date: 8/9/2016

Time	Overload	Leq	Lmax	L10	L90
10:49:56 AM	No	60.8	71	66.2	49.3
10:50:56 AM	No	57.1	66.2	60.6	52.4
10:51:56 AM	No	58.8	63.7	61.4	52.3
10:52:56 AM	No	60.3	68.1	63	58
10:53:56 AM	No	57.8	63.1	58.4	57.2
10:54:56 AM	No	59.1	66.4	61.2	57.3
10:55:56 AM	No	57.3	58.9	58.4	56.5
10:56:56 AM	No	62.1	74.3	64.5	56.4
10:57:56 AM	No	57.8	67.6	59.4	55.7
10:58:56 AM	No	64.3	72.2	69.8	55.9
10:59:56 AM	No	55.9	68.1	57.1	49.6
11:00:56 AM	No	57.1	69.3	58.1	49.9
11:01:56 AM	No	49.5	52.4	50.7	48.4
11:02:56 AM	No	55.2	67	57.5	47.9
11:03:56 AM	No	57	68.4	58.7	49.7
		59.1			

Time	Overload	Leq	Lmax	L10	L90
10:47:51 PM	No	49.1	52.7	51.4	47.1
10:48:51 PM	No	50	54.5	51.6	48.6
10:49:51 PM	No	48.9	50.8	49.6	48.1
10:50:51 PM	No	50.5	55.6	53.7	48.1
10:51:51 PM	No	50	56.9	51.2	48.6
10:52:51 PM	No	50	52.8	51.4	48.6
10:53:51 PM	No	58.9	69.8	62.1	48.8
10:54:51 PM	No	48.7	49.6	49.1	48.2
10:55:51 PM	No	48.9	50.1	49.6	48
10:56:51 PM	No	60.2	69.4	65.7	48.8
10:57:51 PM	No	49.2	51	49.9	48.7
10:58:51 PM	No	55.8	64	61.7	48.6
10:59:51 PM	No	60.6	74	61.4	48.6
11:00:51 PM	No	49.4	51.2	50.2	48.6
11:01:51 PM	No	52.4	60.8	56.6	48.4
		54.7			

AES
ACOUSTICAL ENGINEERING SERVICES

Location: R4
Date: 8/9/2016

Time	Overload	Leq	Lmax	L10	L90
11:33:28 AM	No	60.2	68.9	62.7	56.6
11:34:28 AM	No	59.7	65.5	61.8	56.4
11:35:28 AM	No	56.8	59.6	58.6	55.1
11:36:28 AM	No	57.8	60.7	59.6	55
11:37:28 AM	No	59.3	64.5	61.6	55.1
11:38:28 AM	No	58.2	62.1	60	55.9
11:39:28 AM	No	58.3	62.5	60.1	55.8
11:40:28 AM	No	56.7	61	58.9	54.4
11:41:28 AM	No	59.1	62.8	60.7	56
11:42:28 AM	No	59.7	69.6	61.1	54.5
11:43:28 AM	No	56.6	61.5	58.3	54.2
11:44:28 AM	No	56.8	61	58.3	54.9
11:45:28 AM	No	58.7	63.7	62.1	55.3
11:46:28 AM	No	67.2	79.1	70.7	54.5
11:47:28 AM	No	59.9	68.7	64.7	53.8
		60.1			

Time	Overload	Leq	Lmax	L10	L90
11:48:07 PM	No	55.2	57.8	56.8	52.5
11:49:07 PM	No	52.5	55.3	53.7	51
11:50:07 PM	No	55.8	62.8	59.3	50.7
11:51:07 PM	No	55.8	59.2	57.4	50.8
11:52:07 PM	No	52.6	56.9	53.6	51.4
11:53:07 PM	No	56.2	64.6	59.8	52
11:54:07 PM	No	60.7	73.5	63.5	50.9
11:55:07 PM	No	56.4	67.2	59.5	50.5
11:56:07 PM	No	54.4	60.4	56.4	51.5
11:57:07 PM	No	53.8	56.9	55.6	50.9
11:58:07 PM	No	51.6	53.9	53.2	49.7
11:59:07 PM	No	57.8	68.3	59.9	52.2
12:00:07 AM	No	54.5	58.6	57.3	51.5
12:01:07 AM	No	74.5	89.6	75.4	50.7
12:02:07 AM	No	56.3	62	58.6	53.3
		63.5			

Construction Noise Calculations

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Arts Club Project EIR

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%	30	0
Tractor/Loader/Backhoe	1	79	40%	50	0
Loader	2	79	40%	50	0
Air Compressor	2	78	40%	75	0
Concrete Saw	1	90	20%	75	0

Receptor: ***R1***

Results:

1-hour Leq: 97.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Arts Club Project EIR

Construction Phase: *Shoring/Grading*

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
Crane	1	81	16%	30	0
Plate Compactor	1	83	20%	50	0
Concrete Pump	1	81	20%	50	0
Excavator	1	81	40%	75	0

Receptor: ***R1***

Results:

1-hour Leq: 91.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Arts Club Project EIR

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
Concrete Saw	1	90	20%	10	0
Plate Compactor	1	83	20%	30	0
Concrete Pump	1	81	20%	50	0
Cement and Mortar Mixer	1	80	50%	50	0
Crane	1	81	16%	75	0
Welder	1	74	40%	75	0

Receptor: ***R1***

Results:

1-hour Leq: 97.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Arts Club Project EIR

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
Crane	1	81	16%	10	0
Tractor/Loader/Backhoe	1	79	40%	30	0
Fork Lift	1	75	20%	50	0
Air Compressor	1	78	40%	50	0
Welders	1	74	40%	75	0
Aerial Lift	1	75	20%	75	0
Fork Lift	1	75	20%	100	0
Air Compressor	1	78	40%	100	0
Welders	1	74	40%	125	0
Aerial Lift	1	75	20%	125	0

Receptor: ***R1***

Results:

1-hour Leq: 88.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Arts Club Project EIR

Construction Phase: Paving/Concrete/Landscape

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	10	0
Skid Steer Loaders	1	79	40%	30	0
Tractor/Loader/Backhoe	1	79	40%	50	0
Paving Equipment	1	75	20%	50	0

Receptor: ***R1***

Results:

1-hour Leq: 91.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Arts Club Project EIR

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%	220	10
Excavator	1	81	40%	220	10
Tractor/Loader/Backhoe	1	79	40%	220	10
Loader	2	79	40%	220	10
Air Compressor	2	78	40%	220	10
Concrete Saw	1	90	20%	220	10

Receptor: ***R2***

Results:

1-hour Leq: 64.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Arts Club Project EIR

Construction Phase: *Shoring/Grading*

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%	220	10
Crane	1	81	16%	220	10
Plate Compactor	1	83	20%	220	10
Concrete Pump	1	81	20%	220	10
Excavator	1	81	40%	220	10

Receptor: ***R2***

Results:

1-hour Leq: 59.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Arts Club Project EIR

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
Concrete Saw	1	90	20%	220	10
Plate Compactor	1	83	20%	220	10
Concrete Pump	1	81	20%	220	10
Cement and Mortar Mixer	1	80	50%	220	10
Crane	1	81	16%	220	10
Welder	1	74	40%	220	10

Receptor: ***R2***

Results:

1-hour Leq: 62.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Arts Club Project EIR

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
Crane	1	81	16%	220	10
Tractor/Loader/Backhoe	1	79	40%	220	10
Fork Lift	1	75	20%	220	10
Air Compressor	1	78	40%	220	10
Welders	1	74	40%	220	10
Aerial Lift	1	75	20%	220	10
Fork Lift	1	75	20%	220	10
Air Compressor	1	78	40%	220	10
Welders	1	74	40%	220	10
Aerial Lift	1	75	20%	220	10

Receptor: ***R2***

Results:

1-hour Leq: 58.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Arts Club Project EIR

Construction Phase: Paving/Concrete/Landscape

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	220	10
Skid Steer Loaders	1	79	40%	220	10
Tractor/Loader/Backhoe	1	79	40%	220	10
Paving Equipment	1	75	20%	220	10

Receptor: ***R2***

Results:

1-hour Leq: 57.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Arts Club Project EIR

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	10
Excavator	1	81	40%	265	10
Tractor/Loader/Backhoe	1	79	40%	265	10
Loader	2	79	40%	265	10
Air Compressor	2	78	40%	265	10
Concrete Saw	1	90	20%	265	10

Receptor: ***R3***

Results:

1-hour Leq: 63.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Arts Club Project EIR

Construction Phase: *Shoring/Grading*

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	10
Crane	1	81	16%	265	10
Plate Compactor	1	83	20%	265	10
Concrete Pump	1	81	20%	265	10
Excavator	1	81	40%	265	10

Receptor: ***R3***

Results:

1-hour Leq: 58.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Arts Club Project EIR

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
Concrete Saw	1	90	20%	265	10
Plate Compactor	1	83	20%	265	10
Concrete Pump	1	81	20%	265	10
Cement and Mortar Mixer	1	80	50%	265	10
Crane	1	81	16%	265	10
Welder	1	74	40%	265	10

Receptor: ***R3***

Results:

1-hour Leq: 60.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Arts Club Project EIR

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
Crane	1	81	16%	265	10
Tractor/Loader/Backhoe	1	79	40%	265	10
Fork Lift	1	75	20%	265	10
Air Compressor	1	78	40%	265	10
Welders	1	74	40%	265	10
Aerial Lift	1	75	20%	265	10
Fork Lift	1	75	20%	265	10
Air Compressor	1	78	40%	265	10
Welders	1	74	40%	265	10
Aerial Lift	1	75	20%	265	10

Receptor: ***R3***

Results:

1-hour Leq: 57.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Arts Club Project EIR

Construction Phase: Paving/Concrete/Landscape

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	265	10
Skid Steer Loaders	1	79	40%	265	10
Tractor/Loader/Backhoe	1	79	40%	265	10
Paving Equipment	1	75	20%	265	10

Receptor: ***R3***

Results:

1-hour Leq: 56.3

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Arts Club Project EIR

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%	220	5
Excavator	1	81	40%	220	5
Tractor/Loader/Backhoe	1	79	40%	220	5
Loader	2	79	40%	220	5
Air Compressor	2	78	40%	220	5
Concrete Saw	1	90	20%	220	5

Receptor: ***R4***

Results:

1-hour Leq: 69.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Arts Club Project EIR

Construction Phase: *Shoring/Grading*

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%	220	5
Crane	1	81	16%	220	5
Plate Compactor	1	83	20%	220	5
Concrete Pump	1	81	20%	220	5
Excavator	1	81	40%	220	5

Receptor: ***R4***

Results:

1-hour Leq: 64.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Arts Club Project EIR

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
Concrete Saw	1	90	20%	220	5
Plate Compactor	1	83	20%	220	5
Concrete Pump	1	81	20%	220	5
Cement and Mortar Mixer	1	80	50%	220	5
Crane	1	81	16%	220	5
Welder	1	74	40%	220	5

Receptor: ***R4***

Results:

1-hour Leq: 67.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

AES
ACOUSTICAL ENGINEERING SERVICES

Project: Arts Club Project EIR

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
Crane	1	81	16%	220	5
Tractor/Loader/Backhoe	1	79	40%	220	5
Fork Lift	1	75	20%	220	5
Air Compressor	1	78	40%	220	5
Welders	1	74	40%	220	5
Aerial Lift	1	75	20%	220	5
Fork Lift	1	75	20%	220	5
Air Compressor	1	78	40%	220	5
Welders	1	74	40%	220	5
Aerial Lift	1	75	20%	220	5

Receptor: ***R4***

Results:

1-hour Leq: 63.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

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Project: Arts Club Project EIR

Construction Phase: Paving/Concrete/Landscape

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cement and Mortar Mixer	1	80	50%	220	5
Skid Steer Loaders	1	79	40%	220	5
Tractor/Loader/Backhoe	1	79	40%	220	5
Paving Equipment	1	75	20%	220	5

Receptor: ***R4***

Results:

1-hour Leq: 62.9

Source for Ref. Noise Levels: FHWA RCNM, 2006

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Project: Arts Club 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 structure at 25 feet for further
1.2 For structure at distances closer than 25 feet (per Caltrans, 2004)

ON-SITE CONSTRUCTION ACTIVITIES

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

		Estimated Vibration Levels at nearest off-site building structures (distance in feet), PPV						
Equipment	Reference Vibration Levels at 25 ft., PPV	Commercial building to the North	Residential Apartment building to the south	Residential building to the southwest	Commercial building to the east			
		90	10	65	3			
Large Bulldozer	0.089	0.013	0.267	0.021	1.133			
Caisson Drilling	0.089	0.013	0.267	0.021	1.133			
Loaded Trucks	0.076	0.011	0.228	0.018	0.968			
Jackhammer	0.035	0.005	0.105	0.008	0.446			
Small bulldozer	0.003	0.000	0.009	0.001	0.038			
Significance Threshold, PPV		0.2	0.5	0.5	0.2			

Table 2: Construction Equipment Vibration Levels (PPV) - Human Annoyance

		Estimated Vibration Levels at nearest off-site building structures (distance in feet), PPV						
Equipment	Reference Vibration Levels at 25 ft., PPV	R1	R2	R3	R4			
		10	220	265	220			
Large Bulldozer	0.089	0.267	0.003	0.003	0.003			
Caisson Drilling	0.089	0.267	0.003	0.003	0.003			
Loaded Trucks	0.076	0.228	0.003	0.002	0.003			
Jackhammer	0.035	0.105	0.001	0.001	0.001			
Small bulldozer	0.003	0.009	0.000	0.000	0.000			
Significance Threshold, PPV		0.1	0.1	0.1	0.1			

OFF-SITE CONSTRUCTION HAUL TRUCKS

Table 3: Off-Site Haul Trucks - Building Damage

		Estimated Vibration Levels at noted distance in feet, PPV						
Equipment	Reference Vibration Levels at 50 ft., 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

		Estimated Vibration Levels at noted distance in feet, VdB						
Equipment	Reference Vibration Levels at 50 ft., VdB	20	30					
Typical road surface	63	75	70					
Significance Threshold, VdB		72	72					

Ref. Levels based on FTA Figure 7-3

Eyestone Environmental 21 September 2017
SKB TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: Arts Club Project
RUN: TNM - Haul Trucks

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 **21 September 2017**
SKB **TNM 2.5**

INPUT: RECEIVERS
PROJECT/CONTRACT: **Arts Club Project**
RUN: **TNM - Haul Trucks**

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	
Receptors along the haul route	1	1	500.0	30.0	0.00	4.92	0.00	71	5.0	0.0	Y

Eyestone Environmental **21 September 2017**
SKB **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: **Arts Club Project**
RUN: **TNM - Haul Trucks**

Roadway	Points		Segment									
Name	Name	No.	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	25	35	0	0	10	35	0	0	0	0
	point2	2										

Eyestone Environmental
21 September 2017
SKB
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Arts Club Project
RUN: TNM - Haul Trucks
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
Receptors along the haul route	1	1	0.0	62.9	71	62.9	5	----	62.9	0.0	0	0.0

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

Operation Noise Calculations

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Project Composite Noise Calculations (CNEL)

Project: Arts Club Project

Receptor	Ambient	Traffic[a]	Mechanical	Parking	Loading	Courtyard		Project Composite	Ambient + Project	Increase
R1	59.4	60.9	51.7	47.0	48.9	50.4		62.1	63.9	4.5
R2	72.9	52.4	38.8	18.0	12.9	40.8		52.8	72.9	0.0
R3	60.6	59.4	37.2	24.7	11.4	42.3		59.5	63.1	2.5
R4	67.7	45.1	39.0	36.7	19.2	42.0		47.9	67.7	0.0

[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			distance				distance to	
Receptor	Roadway Segment	Existing	Existing + Project	Project Only	to roadway,	Existing	Existing + Project	barrier	Center Line	adj. for distance
R1	Hilldale Avenue	55.5	62.0	60.9	40	57.7	64.2	0	45	-2.2
R2	San Vicente	68.7	68.8	52.4	10	68.7	68.8	0	30	0.0
R3	Hilldale Avenue	54.0	60.5	59.4	50	57.7	64.2	0	30	-3.7
R4	Sunset Boulevard	61.4	61.5	45.1	130	72.9	73.0	5	35	-6.5

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Outdoor Mechanical Equipment Noise Calculations

Project: Arts Club

					Hours of Operations		
					Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
Receptor	Distance from Project Site	Barrier, IL	Source Noise Levels, at 50ft	Estimated Noise Levels	12	3	9
R1	50	-10	55.0	45.0	45.0	45.0	45.0
R2	220	-10	55.0	32.1	32.1	32.1	32.1
R3	265	-10	55.0	30.5	30.5	30.5	30.5
R4	215	-10	55.0	32.3	32.3	32.3	32.3

Receptor	Project CNEL	Ambient CNEL	Ambient + Project (CNEL)	Increase (CNEL)	Project Noise, (Leq)	nighttime ambient (Leq)	Ambient + Project (Leq)
R1	51.7	59.4	60.1	0.7	45.0	54.5	55.0
R2	38.8	72.9	72.9	0.0	32.1	66.8	66.8
R3	37.2	60.6	60.6	0.0	30.5	54.7	54.7
R4	39.0	67.7	67.7	0.0	32.3	60.1	60.1

54.5 dBA at the Project Property Line

Measured lowest ambient noise levels, at nearest receptor is 54.5 dBA (Leq)
Therefore, to meet the maximum 5dBA above ambient, the project's noise shall be limit to:

Ambient	54.5	
Project	55	(55 dBA at 50 feet distance)
Total	57.8	
	3.3	

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Parking Structure Noise Calculations

Project: Arts Club

						Hours of Operations		
					Estimated noise levels, Leq (FROM SOUNDPLAN)	Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)
Receptor					Estimated Noise Leves, (Leq)	12	3	4
R1					42.9	42.9	42.9	39.4
R2					13.9	13.9	13.9	10.4
R3					20.6	20.6	20.6	17.1
R4					32.6	32.6	32.6	29.1

Receptor	Project CNEL	Ambient CNEL	Ambient + Project (CNEL)	Increase (CNEL)	Project Noise, (Leq)	nighttime ambient (Leq)	Ambient + Project (Leq)	Increase (Leq)
R1	47.0	59.4	59.6	0.2	42.9	54.5	54.8	0.3
R2	18.0	72.9	72.9	0.0	13.9	66.8	66.8	0.0
R3	24.7	60.6	60.6	0.0	20.6	54.7	54.7	0.0
R4	36.7	67.7	67.7	0.0	32.6	63.5	63.5	0.0

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Loading and Trash Compactor Noise Calculations

Project: Arts Club

Estimated noise levels, Leq (FROM SOUNDPLAN)			Hours of Operations Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)				
Receptor		Loading Dock	6	3	2	Project CNEL	Ambient CNEL	Ambient + Project (CNEL)	Increase (CNEL)
R1		47.2	44.2	47.2	40.7	48.9	59.4	59.8	0.4
R2		10.8	7.8	10.8	4.3	12.5	72.9	72.9	0.0
R3		9.1	6.1	9.1	2.6	10.8	60.6	60.6	0.0
R4		17.4	14.4	17.4	10.9	19.1	67.7	67.7	0.0

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Outdoor Courtyards Noise Calculations (Daytime)

Project: Arts Club

				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	12	**3**	**0**	Project CNEL	Ambient CNEL	Ambient + Project
R1	48.4	42.0	49.3	49.3	49.3	0.0	48.8	59.4	59.8
R2	37.7	33.5	39.1	39.1	39.1	0.0	38.6	72.9	72.9
R3	40.5	33.2	41.2	41.2	41.2	0.0	40.8	60.6	60.6
R4	26.1	38.0	38.3	38.3	38.3	0.0	37.8	67.7	67.7

TOTAL COMBINED

Receptor	Project (CNEL)	Ambient (CNEL)	Ambient + Project (CNEL)	Increase (CNEL)	Project Noise, (Leq)	Daytime ambient (Leq)	Ambient + Project (Leq)	Increase (Leq)	Significance threshold (Leq)
R1	48.8	59.4	59.8	0.4	49.3	55.7	56.6	0.9	60.7
R2	38.6	72.9	72.9	0.0	39.1	71.5	71.5	0.0	74.5
R3	40.8	60.6	60.6	0.0	41.2	59.1	59.2	0.1	64.1
R4	37.8	67.7	67.7	0.0	38.3	60.1	60.1	0.0	63.1

AES
ACOUSTICAL ENGINEERING SERVICES

Outdoor Courtyards Noise Calculations (Nighttime)

Project: Arts Club

	Estimated noise levels, Leq (FROM SOUNDPLAN)			Hours of Operations Ld (7am to 7pm)	Le (7pm to 10pm)	Ln (10pm to 7am)			
Receptor	Sound System	Occupants	Total	0	**0**	**4**	Project CNEL	Ambient CNEL	Ambient + Project
R1	38.4	41.4	43.2	0.0	0.0	39.6	45.4	59.4	59.6
R2	27.7	33.4	34.4	0.0	0.0	30.9	36.7	72.9	72.9
R3	30.5	32.8	34.8	0.0	0.0	31.3	37.0	60.6	60.6
R4	16.1	37.6	37.6	0.0	0.0	34.1	39.8	67.7	67.7

TOTAL COMBINED

Receptor	Project (CNEL)	Ambient (CNEL)	Ambient + Project (CNEL)	Increase (CNEL)	Project Noise, (Leq)	nighttime ambient (L90)	Ambient + Project (Leq)	Increase (Leq)	Significance threshold (Leq)
R1	45.4	59.4	59.6	0.2	43.2	48.6	49.7	1.1	43.6
R2	36.7	72.9	72.9	0.0	34.4	58.4	58.4	0.0	53.4
R3	37.0	60.6	60.6	0.0	34.8	48.3	48.5	0.2	43.3
R4	39.9	67.7	67.7	0.0	37.6	50.9	51.1	0.2	45.9

Arts Club
Octave spectra of the sources in dB(A) - Speakers

Name	Source type	Lw dB(A)	125Hz dB(A)	250Hz dB(A)	500Hz dB(A)	1kHz dB(A)	2kHz dB(A)	4kHz dB(A)	8kHz dB(A)
Level9-PoolDeck-Speaker1	Point	105.2	74.4	84.0	92.2	97.3	99.5	99.3	99.2
Level9-PoolDeck-Speaker2	Point	105.2	74.4	84.0	92.2	97.3	99.5	99.3	99.2
Level9-PoolDeck-Speaker3	Point	105.2	74.4	84.0	92.2	97.3	99.5	99.3	99.2

Arts Club
Assessed contribution level - Speakers

Source	Leq,d dB(A)	
Receiver R1 Fl G	Leq,d 38.4 dB(A)	
Level9-PoolDeck-Speaker1	32.6	
Level9-PoolDeck-Speaker2	34.5	
Level9-PoolDeck-Speaker3	33.5	
Receiver R2 Fl G	Leq,d 27.7 dB(A)	
Level9-PoolDeck-Speaker1	6.7	
Level9-PoolDeck-Speaker2	10.3	
Level9-PoolDeck-Speaker3	27.6	
Receiver R3 Fl G	Leq,d 30.5 dB(A)	
Level9-PoolDeck-Speaker1	24.7	
Level9-PoolDeck-Speaker2	25.1	
Level9-PoolDeck-Speaker3	26.9	
Receiver R4 Fl G	Leq,d 16.1 dB(A)	
Level9-PoolDeck-Speaker1	10.9	
Level9-PoolDeck-Speaker2	10.6	
Level9-PoolDeck-Speaker3	12.2	
Receiver R5-FutureHotel Fl G	Leq,d 35.1 dB(A)	
Level9-PoolDeck-Speaker1	31.2	
Level9-PoolDeck-Speaker2	29.5	
Level9-PoolDeck-Speaker3	29.9	

Arts Club
Octave spectra of the sources in dB(A) - Speakers-Day

Name	Source type	Lw dB(A)	125Hz dB(A)	250Hz dB(A)	500Hz dB(A)	1kHz dB(A)	2kHz dB(A)	4kHz dB(A)	8kHz dB(A)
Level9-PoolDeck-Speaker1	Point	115.2	84.4	94.0	102.2	107.3	109.5	109.3	109.2
Level9-PoolDeck-Speaker2	Point	115.2	84.4	94.0	102.2	107.3	109.5	109.3	109.2
Level9-PoolDeck-Speaker3	Point	115.2	84.4	94.0	102.2	107.3	109.5	109.3	109.2

Arts Club
Assessed contribution level - Speakers-Day

Source	Leq,d dB(A)	
Receiver R1	**Leq,d 48.4**	**dB(A)**
Level9-PoolDeck-Speaker3	43.5	
Level9-PoolDeck-Speaker2	44.5	
Level9-PoolDeck-Speaker1	42.6	
Receiver R2	**Leq,d 37.7**	**dB(A)**
Level9-PoolDeck-Speaker3	37.6	
Level9-PoolDeck-Speaker2	20.3	
Level9-PoolDeck-Speaker1	16.7	
Receiver R3	**Leq,d 40.5**	**dB(A)**
Level9-PoolDeck-Speaker3	36.9	
Level9-PoolDeck-Speaker2	35.1	
Level9-PoolDeck-Speaker1	34.7	
Receiver R4	**Leq,d 26.1**	**dB(A)**
Level9-PoolDeck-Speaker3	22.2	
Level9-PoolDeck-Speaker2	20.6	
Level9-PoolDeck-Speaker1	20.9	

Arts Club
Octave spectra of the sources in dB(A) - People-Nighttime Hours

Name	Lw dB(A)	63Hz dB(A)	125Hz dB(A)	250Hz dB(A)	500Hz dB(A)	1kHz dB(A)	2kHz dB(A)	4kHz dB(A)	8kHz dB(A)
Level7-NTerrace-People	87.1	40.2	50.3	67.0	82.1	83.3	79.8	75.1	64.6
Level7-WTerrace-People	79.6	32.7	42.8	59.5	74.6	75.8	72.3	67.6	57.1
Level7-STerrace-People	88.3	41.4	51.5	68.2	83.3	84.5	81.0	76.3	65.8
Level8-STerrace-People	88.5	41.6	51.7	68.4	83.5	84.7	81.2	76.5	66.0
Level9-PoolDeck-People	95.0	48.1	58.2	74.9	90.0	91.2	87.7	83.0	72.5
Level1-People-N1	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-N5	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-N4	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-N3	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-N2	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-W1	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-W8	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-W5	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-W4	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-W3	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-W2	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-W6	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-W7	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-S6	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-S1	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-S2	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-S5	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-S4	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-S3	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level4-People15	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People14	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People13	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People12	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People11	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People10	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People9	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People11	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People11	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People11	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People11	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People11	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People11	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People15	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People15	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People15	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People15	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People15	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People15	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3

Arts Club
Octave spectra of the sources in dB(A) - People-Nighttime Hours

Name	Lw	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
Level4-People15	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3	
Level4-People12	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3	
Level4-People12	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3	
Level4-People12	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3	
Level4-People12	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3	

Arts Club
Assessed contribution level - People-Nighttime Hours

Source	Leq,d dB(A)
Receiver R1	Leq,d 41.4 dB(A)
Level7-NTerrace-People	21.0
Level7-WTerrace-People	22.6
Level7-STerrace-People	34.8
Level8-STerrace-People	35.4
Level9-PoolDeck-People	37.4
Level1-People-N1	-3.9
Level1-People-N5	13.4
Level1-People-N4	-0.7
Level1-People-N3	-2.4
Level1-People-N2	-3.1
Level1-People-W1	11.1
Level1-People-W8	18.7
Level1-People-W5	17.5
Level1-People-W4	17.4
Level1-People-W3	16.4
Level1-People-W2	15.7
Level1-People-W6	18.6
Level1-People-W7	16.9
Level1-People-S6	12.3
Level1-People-S1	21.9
Level1-People-S2	20.2
Level1-People-S5	13.9
Level1-People-S4	16.4
Level1-People-S3	18.7
Level2-People1	22.6
Level2-People1	15.6
Level2-People1	16.2
Level2-People1	15.7
Level2-People1	13.1
Level2-People1	6.7
Level2-People1	5.8
Level2-People1	21.8
Level2-People1	14.4
Level2-People1	13.6
Level4-People15	2.1
Level4-People14	16.2
Level4-People13	13.4
Level4-People12	13.3
Level4-People11	-3.8

Source	Leq,d dB(A)	
Level4-People10	-3.4	
Level4-People9	-4.0	
Level4-People11	-0.3	
Level4-People11	-1.1	
Level4-People11	-1.5	
Level4-People11	-2.7	
Level4-People11	-3.1	
Level4-People11	-3.5	
Level4-People15	19.1	
Level4-People15		
Level4-People15	4.3	
Level4-People15	5.5	
Level4-People15	1.4	
Level4-People15	1.3	
Level4-People15	3.5	
Level4-People12	6.5	
Level4-People12	8.1	
Level4-People12	8.3	
Level4-People12	19.4	
Receiver R2	Leq,d 33.4	dB(A)
Level7-NTerrace-People	17.9	
Level7-WTerrace-People	2.9	
Level7-STerrace-People	27.6	
Level8-STerrace-People	28.3	
Level9-PoolDeck-People	28.6	
Level1-People-N1	-3.4	
Level1-People-N5	-20.1	
Level1-People-N4	-10.6	
Level1-People-N3	-8.8	
Level1-People-N2	-7.3	
Level1-People-W1	-21.1	
Level1-People-W8	-21.5	
Level1-People-W5	-9.8	
Level1-People-W4	-10.4	
Level1-People-W3	-12.1	
Level1-People-W2	-12.2	
Level1-People-W6	-11.7	
Level1-People-W7	-11.6	
Level1-People-S6	-25.0	
Level1-People-S1	-10.1	

Arts Club
Assessed contribution level - People-Nighttime Hours

Source	Leq,d dB(A)	
Level1-People-S2	-10.2	
Level1-People-S5		
Level1-People-S4		
Level1-People-S3	-10.1	
Level2-People1	9.1	
Level2-People1	13.0	
Level2-People1	7.8	
Level2-People1	8.0	
Level2-People1	-5.4	
Level2-People1	-5.0	
Level2-People1	-5.4	
Level2-People1	9.9	
Level2-People1	13.0	
Level2-People1	17.3	
Level4-People15	-11.7	
Level4-People14	1.4	
Level4-People13	1.0	
Level4-People12	1.5	
Level4-People11	-11.5	
Level4-People10	-11.2	
Level4-People9	-11.0	
Level4-People11	-12.3	
Level4-People11	-12.0	
Level4-People11	-9.9	
Level4-People11	-9.4	
Level4-People11	-11.7	
Level4-People11	-11.6	
Level4-People15	-12.0	
Level4-People15	-10.2	
Level4-People15	-10.2	
Level4-People15	-10.8	
Level4-People15	-12.5	
Level4-People15	-12.5	
Level4-People15	-10.1	
Level4-People12	9.2	
Level4-People12	3.0	
Level4-People12	4.3	
Level4-People12	1.7	

Arts Club
Assessed contribution level - People-Nighttime Hours

9

Source	Leq,d dB(A)	

Receiver R3	Leq,d 32.8	dB(A)
Level7-NTerrace-People	9.8	
Level7-WTerrace-People	1.2	
Level7-STerrace-People	24.3	
Level8-STerrace-People	28.7	
Level9-PoolDeck-People	27.8	
Level1-People-N1	-13.8	
Level1-People-N5	-4.3	
Level1-People-N4	-13.2	
Level1-People-N3	-13.2	
Level1-People-N2	-13.6	
Level1-People-W1	-3.4	
Level1-People-W8	-5.8	
Level1-People-W5	-3.8	
Level1-People-W4	-3.1	
Level1-People-W3	-3.2	
Level1-People-W2	-3.2	
Level1-People-W6	-4.3	
Level1-People-W7	-6.7	
Level1-People-S6	-3.6	
Level1-People-S1	-3.5	
Level1-People-S2	-2.3	
Level1-People-S5	-2.0	
Level1-People-S4	-1.9	
Level1-People-S3	-1.8	
Level2-People1	15.6	
Level2-People1	16.6	
Level2-People1	16.4	
Level2-People1	16.2	
Level2-People1	-1.0	
Level2-People1	-5.5	
Level2-People1	-6.4	
Level2-People1	16.1	
Level2-People1	11.2	
Level2-People1	6.4	
Level4-People15	-4.9	
Level4-People14	2.7	
Level4-People13	8.8	
Level4-People12	10.8	
Level4-People11	-13.9	

Source	Leq,d dB(A)	
Level4-People10	-13.9	
Level4-People9	-14.0	
Level4-People11	-10.4	
Level4-People11	-12.8	
Level4-People11	-13.3	
Level4-People11	-13.7	
Level4-People11	-13.8	
Level4-People11	-12.3	
Level4-People15	-7.4	
Level4-People15	-1.2	
Level4-People15	-1.4	
Level4-People15	-1.6	
Level4-People15	-14.0	
Level4-People15	-2.7	
Level4-People15	-2.7	
Level4-People12	0.0	
Level4-People12	10.7	
Level4-People12	10.3	
Level4-People12	10.5	
Receiver R4	Leq,d 37.6	dB(A)
Level7-NTerrace-People	36.2	
Level7-WTerrace-People	16.1	
Level7-STerrace-People	16.0	
Level8-STerrace-People	14.9	
Level9-PoolDeck-People	26.3	
Level1-People-N1	11.9	
Level1-People-N5	-10.0	
Level1-People-N4	15.8	
Level1-People-N3	15.6	
Level1-People-N2	15.2	
Level1-People-W1	-8.5	
Level1-People-W8	11.1	
Level1-People-W5	7.8	
Level1-People-W4	6.8	
Level1-People-W3	3.1	
Level1-People-W2	-2.0	
Level1-People-W6	12.0	
Level1-People-W7	11.5	
Level1-People-S6	-10.6	
Level1-People-S1	10.8	

Arts Club
Assessed contribution level - People-Nighttime Hours

9

Source	Leq,d dB(A)	
Level1-People-S2	-12.7	
Level1-People-S5	-10.6	
Level1-People-S4	-12.8	
Level1-People-S3	-12.8	
Level2-People1	-5.4	
Level2-People1	-3.4	
Level2-People1	-3.4	
Level2-People1	-5.6	
Level2-People1	19.0	
Level2-People1	23.8	
Level2-People1	23.6	
Level2-People1	-5.6	
Level2-People1	-5.6	
Level2-People1	-5.4	
Level4-People15	8.4	
Level4-People14	-6.6	
Level4-People13	-10.6	
Level4-People12	-11.4	
Level4-People11	14.8	
Level4-People10	14.6	
Level4-People9	14.6	
Level4-People11	15.7	
Level4-People11	14.6	
Level4-People11	15.4	
Level4-People11	15.3	
Level4-People11	14.7	
Level4-People11	14.8	
Level4-People15	8.8	
Level4-People15	8.7	
Level4-People15	10.9	
Level4-People15	11.4	
Level4-People15	1.4	
Level4-People15	-2.8	
Level4-People15	-4.7	
Level4-People12	-12.5	
Level4-People12	-12.7	
Level4-People12	-12.7	
Level4-People12	-10.1	

Arts Club
Octave spectra of the sources in dB(A) - People

Name	Lw dB(A)	63Hz dB(A)	125Hz dB(A)	250Hz dB(A)	500Hz dB(A)	1kHz dB(A)	2kHz dB(A)	4kHz dB(A)	8kHz dB(A)
Level1-People-N1	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-N2	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-N3	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-N4	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-N5	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-S1	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-S2	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-S3	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-S4	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-S5	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-S6	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-W1	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-W2	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-W3	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-W4	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-W5	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-W6	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-W7	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level1-People-W8	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level2-People1	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level2-People1	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	71.8	24.9	35.0	51.7	66.8	68.0	64.5	59.8	49.3
Level2-People1	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level2-People1	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level3-People1	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level3-People3	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level3-People4	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level3-People4	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level3-People5	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level3-People6	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level3-People7	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People1	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People1	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People2	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People2	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People3	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People3	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3

Arts Club
Octave spectra of the sources in dB(A) - People

Name	Lw dB(A)	63Hz dB(A)	125Hz dB(A)	250Hz dB(A)	500Hz dB(A)	1kHz dB(A)	2kHz dB(A)	4kHz dB(A)	8kHz dB(A)
Level4-People4	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People5	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People6	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People7	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People8	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People9	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People10	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People11	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People11	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People11	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People11	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People11	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People11	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People11	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People12	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People12	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People12	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People12	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People12	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People13	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People14	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People15	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People15	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People15	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People15	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People15	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People15	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People15	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level4-People15	64.8	17.9	28.0	44.7	59.8	61.0	57.5	52.8	42.3
Level7-NTerrace-People	87.1	40.2	50.3	67.0	82.1	83.3	79.8	75.1	64.6
Level7-STerrace-People	88.3	41.4	51.5	68.2	83.3	84.5	81.0	76.3	65.8
Level7-WTerrace-People	79.6	32.7	42.8	59.5	74.6	75.8	72.3	67.6	57.1
Level8-STerrace-People	88.5	41.6	51.7	68.4	83.5	84.7	81.2	76.5	66.0
Level9-PoolDeck-People	95.0	48.1	58.2	74.9	90.0	91.2	87.7	83.0	72.5

Arts Club
Assessed contribution level - People

Source	Leq,d dB(A)	
Receiver R1	Fl G	Leq,d 42.0 dB(A)
Level7-NTerrace-People	21.0	
Level7-WTerrace-People	22.6	
Level7-STerrace-People	34.8	
Level8-STerrace-People	35.4	
Level9-PoolDeck-People	37.4	
Level1-People-N1	-3.9	
Level1-People-N5	13.4	
Level1-People-N4	-0.7	
Level1-People-N3	-2.4	
Level1-People-N2	-3.1	
Level1-People-W1	11.1	
Level1-People-W8	18.7	
Level1-People-W5	17.5	
Level1-People-W4	17.4	
Level1-People-W3	16.4	
Level1-People-W2	15.7	
Level1-People-W6	18.6	
Level1-People-W7	16.9	
Level1-People-S6	12.3	
Level1-People-S1	21.9	
Level1-People-S2	20.2	
Level1-People-S5	13.9	
Level1-People-S4	16.4	
Level1-People-S3	18.7	
Level2-People1	18.2	
Level2-People1	22.8	
Level2-People1	19.8	
Level2-People1	19.2	
Level2-People1	-2.8	
Level2-People1	-3.5	
Level2-People1	-4.0	
Level3-People7	14.4	
Level3-People6	20.6	
Level3-People5	17.0	
Level3-People4	16.5	
Level3-People3	3.4	
Level3-People4	13.9	
Level3-People1	-0.7	
Level2-People1	25.5	

Arts Club
Assessed contribution level - People

Source	Leq,d dB(A)	
Level2-People1	23.7	
Level2-People1	22.6	
Level2-People1	23.1	
Level4-People3	-3.0	
Level4-People2	-3.4	
Level4-People1	-4.0	
Level4-People8	2.2	
Level4-People7	14.5	
Level4-People6	5.8	
Level4-People5	0.3	
Level4-People4	13.9	
Level4-People3	8.6	
Level4-People2	9.9	
Level4-People1	13.1	
Level2-People1	22.6	
Level2-People1	15.6	
Level2-People1	16.2	
Level2-People1	15.7	
Level2-People1	13.1	
Level2-People1	6.7	
Level2-People1	5.8	
Level2-People1	21.8	
Level2-People1	14.4	
Level2-People1	13.6	
Level4-People15	2.1	
Level4-People14	16.2	
Level4-People13	13.4	
Level4-People12	13.3	
Level4-People11	-3.8	
Level4-People10	-3.4	
Level4-People9	-4.0	
Level4-People11	-0.3	
Level4-People11	-1.1	
Level4-People11	-1.5	
Level4-People11	-2.7	
Level4-People11	-3.1	
Level4-People11	-3.5	
Level4-People15	19.1	
Level4-People15		
Level4-People15	4.3	
Level4-People15	5.5	

Source	Leq,d dB(A)
Level4-People15	1.4
Level4-People15	1.3
Level4-People15	3.5
Level4-People12	6.5
Level4-People12	8.1
Level4-People12	8.3
Level4-People12	19.4
Receiver R2 Fl G Leq,d 33.5 dB(A)	
Level7-NTerrace-People	17.8
Level7-WTerrace-People	2.9
Level7-STerrace-People	27.6
Level8-STerrace-People	28.3
Level9-PoolDeck-People	28.6
Level1-People-N1	-3.4
Level1-People-N5	-20.1
Level1-People-N4	-10.6
Level1-People-N3	-8.8
Level1-People-N2	-7.3
Level1-People-W1	-21.1
Level1-People-W8	-21.5
Level1-People-W5	-9.8
Level1-People-W4	-10.4
Level1-People-W3	-12.1
Level1-People-W2	-12.2
Level1-People-W6	-11.7
Level1-People-W7	-11.6
Level1-People-S6	-25.0
Level1-People-S1	-10.1
Level1-People-S2	-10.2
Level1-People-S5	
Level1-People-S4	
Level1-People-S3	-10.1
Level2-People1	-11.4
Level2-People1	-11.0
Level2-People1	-11.2
Level2-People1	-8.1
Level2-People1	-11.9
Level2-People1	-11.4
Level2-People1	-5.2
Level3-People7	-12.0

Arts Club
Assessed contribution level - People

Source	Leq,d dB(A)	
Level3-People6	3.6	
Level3-People5	-10.5	
Level3-People4	-3.2	
Level3-People3	-12.4	
Level3-People4	-12.4	
Level3-People1	-12.3	
Level2-People1	-4.0	
Level2-People1	13.7	
Level2-People1	14.9	
Level2-People1	10.3	
Level4-People3	-11.5	
Level4-People2	-11.2	
Level4-People1	-1.8	
Level4-People8	-12.3	
Level4-People7	-12.3	
Level4-People6	-12.2	
Level4-People5	-12.4	
Level4-People4	-8.3	
Level4-People3	8.9	
Level4-People2	3.6	
Level4-People1	2.9	
Level2-People1	9.1	
Level2-People1	13.0	
Level2-People1	7.8	
Level2-People1	8.0	
Level2-People1	-5.4	
Level2-People1	-5.0	
Level2-People1	-5.4	
Level2-People1	9.9	
Level2-People1	13.0	
Level2-People1	17.3	
Level4-People15	-11.7	
Level4-People14	1.4	
Level4-People13	1.0	
Level4-People12	1.5	
Level4-People11	-11.5	
Level4-People10	-11.2	
Level4-People9	-11.0	
Level4-People11	-12.3	
Level4-People11	-12.0	
Level4-People11	-9.9	

Source	Leq,d dB(A)
Level4-People11	-9.4
Level4-People11	-11.7
Level4-People11	-11.6
Level4-People15	-12.0
Level4-People15	-10.2
Level4-People15	-10.2
Level4-People15	-10.8
Level4-People15	-12.5
Level4-People15	-12.5
Level4-People15	-10.1
Level4-People12	9.2
Level4-People12	3.0
Level4-People12	4.3
Level4-People12	1.7
Receiver R3 Fl G	Leq,d 33.2 dB(A)
Level7-NTerrace-People	9.8
Level7-WTerrace-People	1.2
Level7-STerrace-People	24.2
Level8-STerrace-People	28.7
Level9-PoolDeck-People	27.8
Level1-People-N1	-13.8
Level1-People-N5	-4.3
Level1-People-N4	-13.2
Level1-People-N3	-13.2
Level1-People-N2	-13.6
Level1-People-W1	-3.4
Level1-People-W8	-5.8
Level1-People-W5	-3.8
Level1-People-W4	-3.1
Level1-People-W3	-3.2
Level1-People-W2	-3.2
Level1-People-W6	-4.3
Level1-People-W7	-6.7
Level1-People-S6	-3.6
Level1-People-S1	-3.5
Level1-People-S2	-2.3
Level1-People-S5	-2.0
Level1-People-S4	-1.9
Level1-People-S3	-1.8
Level2-People1	-1.9

Arts Club
Assessed contribution level - People

Source	Leq,d dB(A)	
Level2-People1	-0.5	
Level2-People1	8.6	
Level2-People1	6.0	
Level2-People1	-12.1	
Level2-People1	-13.7	
Level2-People1	-13.8	
Level3-People7	8.3	
Level3-People6	-1.1	
Level3-People5	8.7	
Level3-People4	8.5	
Level3-People3	-9.2	
Level3-People4	-9.6	
Level3-People1	-13.0	
Level2-People1	0.1	
Level2-People1	5.9	
Level2-People1	17.4	
Level2-People1	18.0	
Level4-People3	-12.0	
Level4-People2	-13.7	
Level4-People1	-13.9	
Level4-People8	-9.0	
Level4-People7	-10.8	
Level4-People6	-10.3	
Level4-People5	-13.2	
Level4-People4	-0.8	
Level4-People3	-0.7	
Level4-People2	8.8	
Level4-People1	8.7	
Level2-People1	15.6	
Level2-People1	16.6	
Level2-People1	16.4	
Level2-People1	16.2	
Level2-People1	-1.0	
Level2-People1	-5.5	
Level2-People1	-6.4	
Level2-People1	16.1	
Level2-People1	11.2	
Level2-People1	6.4	
Level4-People15	-4.9	
Level4-People14	2.7	
Level4-People13	8.8	

Source	Leq,d dB(A)	
Level4-People12	10.8	
Level4-People11	-13.9	
Level4-People10	-13.9	
Level4-People9	-14.0	
Level4-People11	-10.4	
Level4-People11	-12.8	
Level4-People11	-13.3	
Level4-People11	-13.7	
Level4-People11	-13.8	
Level4-People11	-12.3	
Level4-People15	-7.4	
Level4-People15	-1.2	
Level4-People15	-1.4	
Level4-People15	-1.6	
Level4-People15	-14.0	
Level4-People15	-2.7	
Level4-People15	-2.7	
Level4-People12	0.0	
Level4-People12	10.7	
Level4-People12	10.3	
Level4-People12	10.5	
Receiver R4	Fl G Leq,d 38.0 dB(A)	
Level7-NTerrace-People	36.2	
Level7-WTerrace-People	16.1	
Level7-STerrace-People	16.0	
Level8-STerrace-People	14.9	
Level9-PoolDeck-People	26.3	
Level1-People-N1	11.9	
Level1-People-N5	-10.0	
Level1-People-N4	15.8	
Level1-People-N3	15.6	
Level1-People-N2	15.2	
Level1-People-W1	-8.5	
Level1-People-W8	11.1	
Level1-People-W5	7.8	
Level1-People-W4	6.8	
Level1-People-W3	3.1	
Level1-People-W2	-2.0	
Level1-People-W6	12.0	
Level1-People-W7	11.5	

Arts Club
Assessed contribution level - People

Source	Leq,d dB(A)	
Level1-People-S6	-10.6	
Level1-People-S1	10.8	
Level1-People-S2	-12.7	
Level1-People-S5	-10.6	
Level1-People-S4	-12.8	
Level1-People-S3	-12.8	
Level2-People1	-4.3	
Level2-People1	0.5	
Level2-People1	-10.3	
Level2-People1	-11.5	
Level2-People1	17.3	
Level2-People1	17.0	
Level2-People1	16.6	
Level3-People7	-11.6	
Level3-People6	-4.1	
Level3-People5	-10.0	
Level3-People4	-11.1	
Level3-People3	14.1	
Level3-People4	15.5	
Level3-People1	17.6	
Level2-People1	4.1	
Level2-People1	6.0	
Level2-People1	-1.3	
Level2-People1	-5.0	
Level4-People3	17.0	
Level4-People2	16.6	
Level4-People1	16.1	
Level4-People8	11.9	
Level4-People7	11.8	
Level4-People6	13.1	
Level4-People5	15.5	
Level4-People4	1.4	
Level4-People3	-12.6	
Level4-People2	-12.2	
Level4-People1	-10.3	
Level2-People1	-5.4	
Level2-People1	-3.4	
Level2-People1	-3.4	
Level2-People1	-5.6	
Level2-People1	19.0	
Level2-People1	23.8	

Arts Club
Assessed contribution level - People

Source	Leq,d dB(A)	
Level2-People1	23.6	
Level2-People1	-5.6	
Level2-People1	-5.6	
Level2-People1	-5.4	
Level4-People15	8.4	
Level4-People14	-6.6	
Level4-People13	-10.6	
Level4-People12	-11.4	
Level4-People11	14.8	
Level4-People10	14.6	
Level4-People9	14.6	
Level4-People11	15.7	
Level4-People11	14.6	
Level4-People11	15.4	
Level4-People11	15.3	
Level4-People11	14.7	
Level4-People11	14.8	
Level4-People15	8.8	
Level4-People15	8.7	
Level4-People15	10.9	
Level4-People15	11.4	
Level4-People15	1.4	
Level4-People15	-2.8	
Level4-People15	-4.7	
Level4-People12	-12.5	
Level4-People12	-12.7	
Level4-People12	-12.7	
Level4-People12	-10.1	

Arts Club
Octave spectra of the sources in dB(A) - Parking

Name	Source type	Lw	Emission spectrum	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
		dB(A)		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Parking	Point	98.4	Pkw, parking process	82.6	89.6	88.6	90.6	92.6	90.6	88.6	82.6

Arts Club
Assessed contribution level - Parking

Source	Leq,d dB(A)	
Receiver R1	Fl G Leq,d 42.9	dB(A)
Parking	42.9	
Receiver R2	Fl G Leq,d 13.9	dB(A)
Parking	13.9	
Receiver R3	Fl G Leq,d 20.6	dB(A)
Parking	20.6	
Receiver R4	Fl G Leq,d 32.6	dB(A)
Parking	32.6	

Arts Club
Source Levels in dB(A) - Loading

Name	Lw dB(A)	63Hz dB(A)	125Hz dB(A)	250Hz dB(A)	1kHz dB(A)	2kHz dB(A)	4kHz dB(A)	8kHz dB(A)
Loading	103.7	70.7	80.7	87.7	96.7	97.7	97.7	95.7

Arts Club
Assessed contribution level - Loading

Source	Leq,d dB(A)	
Receiver R1	Leq,d 47.2	dB(A)
Loading	47.2	
Receiver R2	Leq,d 10.8	dB(A)
Loading	10.8	
Receiver R3	Leq,d 9.1	dB(A)
Loading	9.1	
Receiver R4	Leq,d 17.4	dB(A)
Loading	17.4	

AES
ACOUSTICAL ENGINEERING SERVICES

Off-Site Traffic Noise Calculations
Project: Arts Club Project

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

PHV to ADT factor 10%

EXISTING CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Doheny Drive										
- North of Sunset Blvd.	40	10	30	25	427	4,270	10%	0	0	66.6
- Between Sunset Blvd. and Santa Monica Blvd.	40	10	30	35	928	9,280	10%	0	0	69.9
- South of Santa Monica Blvd.	40	10	30	35	1,883	18,830	10%	0	0	73.0
Hammond Street										
- South of Sunset Blvd.	30	10	25	25	175	1,750	10%	0	0	63.5
Hilldale Avenue										
- North of Sunset Blvd.	30	10	25	35	49	490	10%	0	0	58.0
- South of Sunset Blvd.	30	10	25	35	46	460	10%	0	0	57.7
San Vicente Boulevard										
- North of Sunset Blvd.	30	10	25	25	151	1,510	10%	0	0	62.8
- Between Sunset Blvd. and Cynthia St.	60	10	40	35	957	9,570	10%	0	0	68.7
- Between Cynthia St. and Santa Monica Blvd.	60	10	40	35	1,377	13,770	10%	0	0	70.2
- South of Santa Monica Blvd.	70	10	45	35	1,733	17,330	10%	0	0	70.7
Horn Avenue										
- North of Sunset Blvd.	30	10	25	25	138	1,380	10%	0	0	62.5
Holloway Drive										
- East of Sunset Blvd.	40	10	30	35	821	8,210	10%	0	0	69.4
Cynthia Street										
- West of San Vicente Blvd.	40	10	30	35	881	8,810	10%	0	0	69.7
- East of San Vicente Blvd.	40	10	30	35	654	6,540	10%	0	0	68.4
Santa Monica Boulevard										
- West of Doheny Drive	60	70	100	35	2,523	25,230	10%	0	0	69.0
- Between Doheny Dr. and San Vicente Blvd.	90	10	55	35	2,442	24,420	10%	0	0	71.3
- East of San Vicente Blvd.	80	10	50	35	2,290	22,900	10%	0	0	71.5
Sunset Boulevard										
- West of Doheny Drive	70	10	45	35	2,705	27,050	10%	0	0	72.7

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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
- Between Doheny Dr. and San Vicente Blvd.	70	10	45	35	2,878	28,780	10%	0	0	72.9
- East of San Vicente Blvd.	70	10	45	35	2,875	28,750	10%	0	0	72.9

* Estimated based on Google Earth map.

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

Date Printed: 9/25/2017

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ACOUSTICAL ENGINEERING SERVICES

Off-Site Traffic Noise Calculations
Project: Arts Club Project

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

PHV to ADT factor 10%

EXISTING + PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Doheny Drive										
- North of Sunset Blvd.	40	10	30	25	427	4,270	10%	0	0	66.6
- Between Sunset Blvd. and Santa Monica Blvd.	40	10	30	35	968	9,680	10%	0	0	70.1
- South of Santa Monica Blvd.	40	10	30	35	1,899	18,990	10%	0	0	73.0
Hammond Street										
- South of Sunset Blvd.	30	10	25	25	175	1,750	10%	0	0	63.5
Hilldale Avenue										
- North of Sunset Blvd.	30	10	25	35	49	490	10%	0	0	58.0
- South of Sunset Blvd.	30	10	25	35	206	2,060	10%	0	0	64.2
San Vicente Boulevard										
- North of Sunset Blvd.	30	10	25	25	151	1,510	10%	0	0	62.8
- Between Sunset Blvd. and Cynthia St.	60	10	40	35	989	9,890	10%	0	0	68.8
- Between Cynthia St. and Santa Monica Blvd.	60	10	40	35	1,409	14,090	10%	0	0	70.3
- South of Santa Monica Blvd.	70	10	45	35	1,765	17,650	10%	0	0	70.8
Horn Avenue										
- North of Sunset Blvd.	30	10	25	25	138	1,380	10%	0	0	62.5
Holloway Drive										
- East of Sunset Blvd.	40	10	30	35	837	8,370	10%	0	0	69.5
Cynthia Street										
- West of San Vicente Blvd.	40	10	30	35	881	8,810	10%	0	0	69.7
- East of San Vicente Blvd.	40	10	30	35	654	6,540	10%	0	0	68.4
Santa Monica Boulevard										
- West of Doheny Drive	60	70	100	35	2,541	25,410	10%	0	0	69.0
- Between Doheny Dr. and San Vicente Blvd.	90	10	55	35	2,442	24,420	10%	0	0	71.3
- East of San Vicente Blvd.	80	10	50	35	2,290	22,900	10%	0	0	71.5
Sunset Boulevard										
- West of Doheny Drive	70	10	45	35	2,736	27,360	10%	0	0	72.7

AES
ACOUSTICAL ENGINEERING SERVICES

EXISTING + 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
- Between Doheny Dr. and San Vicente Blvd.	70	10	45	35	2,940	29,400	10%	0	0	73.0
- East of San Vicente Blvd.	70	10	45	35	2,917	29,170	10%	0	0	73.0

* Estimated based on Google Earth map.

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

Date Printed: 9/25/2017

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ACOUSTICAL ENGINEERING SERVICES

Off-Site Traffic Noise Calculations
Project: Arts Club Project

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

PHV to ADT factor 10%

FUTURE NO PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Doheny Drive										
- North of Sunset Blvd.	40	10	30	25	439	4,390	10%	0	0	66.7
- Between Sunset Blvd. and Santa Monica Blvd.	40	10	30	35	1,169	11,690	10%	0	0	70.9
- South of Santa Monica Blvd.	40	10	30	35	2,391	23,910	10%	0	0	74.0
Hammond Street										
- South of Sunset Blvd.	30	10	25	25	288	2,880	10%	0	0	65.6
Hilldale Avenue										
- North of Sunset Blvd.	30	10	25	35	51	510	10%	0	0	58.1
- South of Sunset Blvd.	30	10	25	35	231	2,310	10%	0	0	64.7
San Vicente Boulevard										
- North of Sunset Blvd.	30	10	25	25	155	1,550	10%	0	0	63.0
- Between Sunset Blvd. and Cynthia St.	60	10	40	35	1,097	10,970	10%	0	0	69.3
- Between Cynthia St. and Santa Monica Blvd.	60	10	40	35	1,535	15,350	10%	0	0	70.7
- South of Santa Monica Blvd.	70	10	45	35	2,024	20,240	10%	0	0	71.4
Horn Avenue										
- North of Sunset Blvd.	30	10	25	25	142	1,420	10%	0	0	62.6
Holloway Drive										
- East of Sunset Blvd.	40	10	30	35	902	9,020	10%	0	0	69.8
Cynthia Street										
- West of San Vicente Blvd.	40	10	30	35	935	9,350	10%	0	0	70.0
- East of San Vicente Blvd.	40	10	30	35	674	6,740	10%	0	0	68.5
Santa Monica Boulevard										
- West of Doheny Drive	60	70	100	35	3,265	32,650	10%	0	0	70.1
- Between Doheny Dr. and San Vicente Blvd.	90	10	55	35	3,021	30,210	10%	0	0	72.3
- East of San Vicente Blvd.	80	10	50	35	2,814	28,140	10%	0	0	72.3
Sunset Boulevard										
- West of Doheny Drive	70	10	45	35	2,957	29,570	10%	0	0	73.1

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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
- Between Doheny Dr. and San Vicente Blvd.	70	10	45	35	3,289	32,890	10%	0	0	73.5
- East of San Vicente Blvd.	70	10	45	35	3,316	33,160	10%	0	0	73.6

* 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: Arts Club Project

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

PHV to ADT factor 10%

FUTURE + PROJECT CONDITIONS

Roadway Segment	Roadway Width*, ft	Distance to Edge of Roadway, ft	Distance to Centerline, feet	Speed mph	Traffic Volume PHV	Traffic Volume ADT	PHV to ADT factor	Barrier Atten.	Site Adjust., dBA	24-Hour CNEL
Doheny Drive										
- North of Sunset Blvd.	40	10	30	25	439	4,390	10%	0	0	66.7
- Between Sunset Blvd. and Santa Monica Blvd.	40	10	30	35	1,209	12,090	10%	0	0	71.1
- South of Santa Monica Blvd.	40	10	30	35	2,407	24,070	10%	0	0	74.1
Hammond Street										
- South of Sunset Blvd.	30	10	25	25	288	2,880	10%	0	0	65.6
Hilldale Avenue										
- North of Sunset Blvd.	30	10	25	35	51	510	10%	0	0	58.1
- South of Sunset Blvd.	30	10	25	35	391	3,910	10%	0	0	67.0
San Vicente Boulevard										
- North of Sunset Blvd.	30	10	25	25	155	1,550	10%	0	0	63.0
- Between Sunset Blvd. and Cynthia St.	60	10	40	35	1,129	11,290	10%	0	0	69.4
- Between Cynthia St. and Santa Monica Blvd.	60	10	40	35	1,567	15,670	10%	0	0	70.8
- South of Santa Monica Blvd.	70	10	45	35	2,056	20,560	10%	0	0	71.5
Horn Avenue										
- North of Sunset Blvd.	30	10	25	25	142	1,420	10%	0	0	62.6
Holloway Drive										
- East of Sunset Blvd.	40	10	30	35	918	9,180	10%	0	0	69.9
Cynthia Street										
- West of San Vicente Blvd.	40	10	30	35	935	9,350	10%	0	0	70.0
- East of San Vicente Blvd.	40	10	30	35	674	6,740	10%	0	0	68.5
Santa Monica Boulevard										
- West of Doheny Drive	60	70	100	35	3,289	32,890	10%	0	0	70.1
- Between Doheny Dr. and San Vicente Blvd.	90	10	55	35	3,021	30,210	10%	0	0	72.3
- East of San Vicente Blvd.	80	10	50	35	2,814	28,140	10%	0	0	72.3
Sunset Boulevard										
- West of Doheny Drive	70	10	45	35	2,957	29,570	10%	0	0	73.1

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ACOUSTICAL ENGINEERING SERVICES

FUTURE + 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
- Between Doheny Dr. and San Vicente Blvd.	70	10	45	35	3,289	32,890	10%	0	0	73.5
- East of San Vicente Blvd.	70	10	45	35	3,316	33,160	10%	0	0	73.6

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