

Appendix F

Noise Measurement Data

Noise Measurement Locations



Noise Measurement Field Data

Project:	UCI East Campus Student Apartments	Job Number:	194105210.1.230
Site No.:	ST-1	Date:	1/15/2025
Analyst:	Jin C., Dharma T.	Time:	11:04-11:14 a.m.
Location:	Berkeley Court Apartment		
Noise Sources:	Siren, vehicle passing by, residents walking, plane flying over		
Comments:	resident cooking and playing music in the apartment		

Results (dBA):			
Leq:	Lmin:	Lmax:	Peak:
50.3	40.3	62.8	92.5

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	68
Wind (mph):	3
Sky:	Clear
Bar. Pressure:	30.21
Humidity:	20%

Photo:



Measurement Report

Report Summary

Meter's File Name	ST-1.116.s	Computer's File Name	LxTse_0007061-20250115 110456-ST-1.116.ldbin		
Meter	LxT SE 0007061	Firmware	2.404		
User		Location			
Job Description					
Note					
Start Time	2025-01-15 11:04:56	Duration	0:10:00.0		
End Time	2025-01-15 11:14:56	Run Time	0:10:00.0	Pause Time	0:00:00.0
Pre-Calibration	2024-07-11 10:35:45	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	50.3 dB		
LAE	78.1 dB	SEA	--- dB
EA	7.1 μPa²h		
LA _{peak}	92.5 dB		2025-01-15 11:05:25
LAS _{max}	62.8 dB		2025-01-15 11:06:55
LAS _{min}	40.3 dB		2025-01-15 11:14:32
LA _{eq}	50.3 dB		
LC _{eq}	60.8 dB	LC _{eq} - LA _{eq}	10.5 dB
LAI _{eq}	53.4 dB	LAI _{eq} - LA _{eq}	3.1 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LApeak > 135.0 dB	0	0:00:00.0
LApeak > 137.0 dB	0	0:00:00.0
LApeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
50.3 dB	50.3 dB	0.0 dB	
LDEN	LDay	LEve	LNight
50.3 dB	50.3 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	50.3 dB		60.8 dB		--- dB	
LS _(max)	62.8 dB	2025-01-15 11:06:55	--- dB	None	--- dB	None
LS _(min)	40.3 dB	2025-01-15 11:14:32	--- dB	None	--- dB	None
L _{Peak(max)}	92.5 dB	2025-01-15 11:05:25	--- dB	None	--- dB	None

Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	57.2 dB
LAS 10.0	54.1 dB
LAS 33.3	47.2 dB
LAS 50.0	46.3 dB
LAS 66.6	45.2 dB
LAS 90.0	43.0 dB

Noise Measurement Field Data

Project:	UCI East Campus Student Apartments	Job Number:	194105210.1.230
Site No.:	ST-2	Date:	1/15/2025
Analyst:	Jin C., Dharma T.	Time:	10:49-10:59 a.m.
Location:	Cornell Court Apartment		
Noise Sources:	Vehicles passing by, vehicle engine, resident walking by, birds chirping		
Comments:			
Results (dBA):			
	Leq:	Lmin:	Lmax:
	51.6	41.4	65.3
			Peak:
			87.8

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	67
Wind (mph):	3
Sky:	Clear
Bar. Pressure:	30.21
Humidity:	20%

Photo:



Measurement Report

Report Summary

Meter's File Name	ST-1.115.s	Computer's File Name	LxTse_0007061-20250115 104904-ST-1.115.ldbin		
Meter	LxT SE 0007061	Firmware	2.404		
User		Location			
Job Description					
Note					
Start Time	2025-01-15 10:49:04	Duration	0:10:00.0		
End Time	2025-01-15 10:59:04	Run Time	0:10:00.0	Pause Time	0:00:00.0
Pre-Calibration	2024-07-11 10:35:45	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	51.6 dB		
LAE	79.4 dB	SEA	--- dB
EA	9.6 µPa²h		
LA _{peak}	87.8 dB		2025-01-15 10:49:10
LAS _{max}	65.3 dB		2025-01-15 10:50:02
LAS _{min}	41.4 dB		2025-01-15 10:56:02
LA _{eq}	51.6 dB		
LC _{eq}	64.7 dB	LC _{eq} - LA _{eq}	13.1 dB
LAI _{eq}	53.3 dB	LAI _{eq} - LA _{eq}	1.7 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LApeak > 135.0 dB	0	0:00:00.0
LApeak > 137.0 dB	0	0:00:00.0
LApeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
51.6 dB	51.6 dB	0.0 dB	
LDEN	LDay	LEve	LNight
51.6 dB	51.6 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	51.6 dB		64.7 dB		--- dB	
LS _(max)	65.3 dB	2025-01-15 10:50:02	--- dB	None	--- dB	None
LS _(min)	41.4 dB	2025-01-15 10:56:02	--- dB	None	--- dB	None
L _{Peak(max)}	87.8 dB	2025-01-15 10:49:10	--- dB	None	--- dB	None

Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	56.0 dB
LAS 10.0	54.5 dB
LAS 33.3	50.2 dB
LAS 50.0	48.8 dB
LAS 66.6	47.7 dB
LAS 90.0	45.3 dB

Noise Measurement Field Data

Project:	UCI East Campus Student Apartments	Job Number:	194105210.1.230
Site No.:	ST-3	Date:	1/15/2025
Analyst:	Jin C., Dharma T.	Time:	9:48-9:58 a.m.
Location:	Parking Lot 1C along Campus Drive and East Peltason Drive.		
Noise Sources:	Nearby traffic, birds chirping, helicopter flyig over, and sirent.		
Comments:			

Results (dBA):				
	Leq:	Lmin:	Lmax:	Peak:
	57.0	45.4	77.4	89.8

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	64
Wind (mph):	7
Sky:	Clear
Bar. Pressure:	30.23
Humidity:	22%

Photo:



Measurement Report

Report Summary

Meter's File Name	ST-1.113.s	Computer's File Name	LxTse_0007061-20250115 094819-ST-1.113.ldbin		
Meter	LxT SE 0007061	Firmware	2.404		
User		Location			
Job Description					
Note					
Start Time	2025-01-15 09:48:19	Duration	0:10:00.0		
End Time	2025-01-15 09:58:19	Run Time	0:10:00.0	Pause Time	0:00:00.0
Pre-Calibration	2025-01-15 09:46:21	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	57.0 dB		
LAE	84.8 dB	SEA	--- dB
EA	33.4 μPa ² h		
LA _{peak}	89.8 dB		2025-01-15 09:56:28
LAS _{max}	77.4 dB		2025-01-15 09:56:28
LAS _{min}	45.4 dB		2025-01-15 09:52:41
LA _{eq}	57.0 dB		
LC _{eq}	68.0 dB	LC _{eq} - LA _{eq}	11.0 dB
LAI _{eq}	59.3 dB	LAI _{eq} - LA _{eq}	2.3 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LAPeak > 135.0 dB	0	0:00:00.0
LAPeak > 137.0 dB	0	0:00:00.0
LAPeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
57.0 dB	57.0 dB	0.0 dB	
LDEN	LDay	LEve	LNight
57.0 dB	57.0 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	57.0 dB		68.0 dB		--- dB	
LS _(max)	77.4 dB	2025-01-15 09:56:28	--- dB	None	--- dB	None
LS _(min)	45.4 dB	2025-01-15 09:52:41	--- dB	None	--- dB	None
L _{Peak(max)}	89.8 dB	2025-01-15 09:56:28	--- dB	None	--- dB	None

Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	58.5 dB
LAS 10.0	55.4 dB
LAS 33.3	53.6 dB
LAS 50.0	52.6 dB
LAS 66.6	51.5 dB
LAS 90.0	49.0 dB

Noise Measurement Field Data

Project:	UCI East Campus Student Apartments	Job Number:	194105210.1.230
Site No.:	ST-4	Date:	1/15/2025
Analyst:	Jin C., Dharma T.	Time:	10:26-10:36 a.m.
Location:	Parking Lot AHA along Campus Drive and California Avenue.		

Noise Sources: Vehicles passing by, birds chirping, construction noise (drilling and trucks backing up)

Comments:

Results (dBA):

Leq:	Lmin:	Lmax:	Peak:
65.6	47.1	70.9	89.2

Equipment	
Sound Level Meter:	LD SoundExpert LxT
Calibrator:	CAL200
Response Time:	Slow
Weighting:	A
Microphone Height:	5 feet

Weather	
Temp. (degrees F):	67
Wind (mph):	5
Sky:	Clear
Bar. Pressure:	30.22
Humidity:	21%

Photo:



Measurement Report

Report Summary

Meter's File Name	ST-1.114.s	Computer's File Name	LxTse_0007061-20250115 102608-ST-1.114.ldbin		
Meter	LxT SE 0007061	Firmware	2.404		
User		Location			
Job Description					
Note					
Start Time	2025-01-15 10:26:08	Duration	0:10:00.0		
End Time	2025-01-15 10:36:08	Run Time	0:10:00.0	Pause Time	0:00:00.0
Pre-Calibration	2024-07-11 10:35:45	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	65.6 dB		
LAE	93.4 dB	SEA	--- dB
EA	242.1 µPa²h		
LA _{peak}	89.2 dB		2025-01-15 10:26:08
LAS _{max}	70.9 dB		2025-01-15 10:34:54
LAS _{min}	47.1 dB		2025-01-15 10:36:05
LA _{eq}	65.6 dB		
LC _{eq}	70.9 dB	LC _{eq} - LA _{eq}	5.3 dB
LAI _{eq}	67.7 dB	LAI _{eq} - LA _{eq}	2.1 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LAPeak > 135.0 dB	0	0:00:00.0
LAPeak > 137.0 dB	0	0:00:00.0
LAPeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
65.6 dB	65.6 dB	0.0 dB	
LDEN	LDay	LEve	LNight
65.6 dB	65.6 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	65.6 dB		70.9 dB		--- dB	
LS _(max)	70.9 dB	2025-01-15 10:34:54	--- dB	None	--- dB	None
LS _(min)	47.1 dB	2025-01-15 10:36:05	--- dB	None	--- dB	None
L _{Peak(max)}	89.2 dB	2025-01-15 10:26:08	--- dB	None	--- dB	None

Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	69.9 dB
LAS 10.0	69.2 dB
LAS 33.3	66.6 dB
LAS 50.0	64.5 dB
LAS 66.6	61.5 dB
LAS 90.0	55.6 dB

Project: UCI East Campus Student APT.
 Construction Noise Impact on Sensitive Receptors

Parameters		
Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

Receptor (Land Use)	Average Distance (feet)	Distance to Property Line (feet)	Shielding	Direction
1 Student Housing (Puerta Del Sol)	1	25	0	W
2 Childcare Center	2	97	0	S
3 Student Housing (Plaza Verde)	3	131	0	E

Construction Noise Levels by Phase (Leq)				
Demolition	Grading	Building Construction	Paving	Architectural Coating
78.4	74.7	74.7	77.4	64.5
72.4	71.2	74.7	74.9	64.5
73.5	72.9	74.8	72.8	64.7

Construction Phase	Equipment Type	No. of Equip.	Acoustical Usage Factor	Reference Noise Level at 50ft per Unit, Lmax
Demolition	Concrete Saw	1	20%	90
	Dozer	1	40%	82
	Tractor	3	40%	84
	Combined LEQ			
Grading	Grader	1	40%	85
	Dozer	1	40%	82
	Tractor	2	40%	84
	Combined LEQ			
Building Construction	Crane	1	16%	81
	Tractor	1	40%	84
	Generator	1	50%	81
	Welder/Torch	3	40%	74
	Forklift	1	40%	80
	Combined LEQ			
Paving	Drum Mixer	1	50%	80
	Paver	1	50%	77
	Pavement Scarifier	1	20%	90
	Roller	1	20%	80
	Tractor	1	40%	84
	Combined LEQ			
Architectural Coating	Compressor (air)	1	40%	78
	Combined LEQ			

RECEPTOR 1			RECEPTOR 2			RECEPTOR 3		
Distance (feet)	Noise Level at Receptor 1, Lmax	Noise Level at Receptor 1, Leq	Distance (feet)	Noise Level at Receptor 2, Lmax	Noise Level at Receptor 2, Leq	Distance (feet)	Noise Level at Receptor 3, Lmax	Noise Level at Receptor 3, Leq
140	80.7	73.7	280	74.6	67.6	246	75.8	68.8
140	72.8	68.8	280	66.7	62.8	246	67.9	63.9
140	79.8	75.8	280	73.8	69.8	246	74.9	71.0
		78.4			72.4			73.5
180	73.9	69.9	270	70.4	66.4	223	72.0	68.0
180	70.6	66.6	270	67.1	63.1	223	68.7	64.7
180	75.9	71.9	270	72.4	68.4	223	74.0	70.0
		74.7			71.2			72.9
145	71.4	63.4	145	71.4	63.4	142	71.5	63.6
145	74.8	70.8	145	74.8	70.8	142	74.9	71.0
145	71.4	68.3	145	71.4	68.3	142	71.5	68.5
145	69.5	65.5	145	69.5	65.5	142	69.7	65.7
145	70.8	66.8	145	70.8	66.8	142	70.9	67.0
		74.7			74.7			74.8
130	71.7	68.7	174	69.2	66.2	222	67.1	64.0
130	68.9	65.9	174	66.4	63.4	222	64.3	61.2
130	81.2	74.2	174	78.7	71.7	222	76.6	69.6
130	71.7	64.7	174	69.2	62.2	222	67.1	60.1
130	75.7	71.7	174	73.2	69.2	222	71.1	67.1
		77.4			74.9			72.8
145	68.5	64.5	145	68.5	64.5	142.0	68.6	64.7
		64.5			64.5			64.7

Source for Ref. Noise Levels: RCNM, 2005
 * source for any user defined equipment/data

Project: UCI East Campus Student APT.
 Construction Noise Impact on Sensitive Receptors

Parameters		
Construction Hours:	Daytime hours (7 am to 7 pm)	8
	Evening hours (7 pm to 10 pm)	0
	Nighttime hours (10 pm to 7 am)	0
Leq to L10 factor		3

		Average Distance (feet)	Distance to Property Line (feet)	Shielding	Direction
1	Multifamily Residential (Cornell Court)	1	110		0N
2	Student Housing (Verano Place)	2	141		0E
3	Education Building	3	170		0W

Construction Noise Levels by Phase (Leq)					
Demolition	Grading	Building Construction	Paving	Architectural Coating	
74.9	72.2	73.3	68.6	62.4	
74.9	72.6	71.8	73.9	60.9	
74.6	73.4	71.1	74.8	60.3	

Construction Phase	Equipment Type	No. of Equip.	Acoustical Usage Factor	Reference Noise Level at 50ft per Unit, Lmax
Demolition	Concrete Saw	1	20%	90
	Dozer	1	40%	82
	Tractor	3	40%	84
	Combined LEQ			
Grading	Grader	1	40%	85
	Dozer	1	40%	82
	Tractor	2	40%	84
	Combined LEQ			
Building Construction	Crane	1	16%	81
	Tractor	1	40%	84
	Generator	1	50%	81
	Welder/Torch	3	40%	74
	Forklift	2	40%	80
	Combined LEQ			
Paving	Drum Mixer	1	50%	80
	Paver	1	50%	77
	Pavement Scarifier	1	20%	90
	Roller	2	20%	80
	Tractor	1	40%	84
	Combined LEQ			
Architectural Coating	Compressor (air)	1	40%	78
	Combined LEQ			

RECEPTOR 1			RECEPTOR 2			RECEPTOR 3		
Distance (feet)	Noise Level at Receptor 1, Lmax	Noise Level at Receptor 1, Leq	Distance (feet)	Noise Level at Receptor 2, Lmax	Noise Level at Receptor 2, Leq	Distance (feet)	Noise Level at Receptor 3, Lmax	Noise Level at Receptor 3, Leq
210	77.1	70.1	210	77.1	70.1	217	76.9	69.9
210	69.2	65.3	210	69.2	65.3	217	69.0	65.0
210	76.3	72.3	210	76.3	72.3	217	76.0	72.0
		74.9			74.9			74.6
240	71.4	67.4	231	71.7	67.7	211	72.5	68.5
240	68.1	64.1	231	68.4	64.4	211	69.2	65.2
240	73.4	69.4	231	73.7	69.7	211	74.5	70.5
		72.2			72.6			73.4
184	69.3	61.3	218	67.8	59.9	235	67.2	59.2
184	72.7	68.7	218	71.2	67.2	235	70.6	66.6
184	69.3	66.3	218	67.8	64.8	235	67.2	64.1
184	67.5	63.5	218	66.0	62.0	235	65.3	61.3
184	71.7	67.7	218	70.2	66.2	235	69.6	65.6
		73.3			71.8			71.1
370	62.6	59.6	200	68.0	64.9	180	68.9	65.9
370	59.8	56.8	200	65.2	62.1	180	66.1	63.1
370	72.1	65.1	200	77.5	70.5	180	78.4	71.4
370	65.6	58.6	200	71.0	64.0	180	71.9	64.9
370	66.6	62.6	200	72.0	68.0	180	72.9	68.9
		68.6			73.9			74.8
184	66.4	62.4	218	64.9	60.9	235	64.3	60.3
		62.4			60.9			60.3

Source for Ref. Noise Levels: RCNM, 2005
 * source for any user defined equipment/data

Noise Source	Reference Level (dBA)	Reference Distance (feet)	Distance to Receptor (feet)	Level at Receptor (dBA) ³	Ambient Level (dBA) ⁴	Combined Noise at Receptor (dBA)	Incremental Increase (dBA)	Significant?
Site A								
Mechanical Equipment ¹	52	50	70	49.1	65.6	65.7	0.1	No
Parking ²	61	50	45	61.9	65.6	67.1	1.5	No
Landscape Maintenance	70	5	30	54.4	65.6	65.9	0.3	No
Site B								
Mechanical Equipment ¹	52	50	125	44.0	57.0	57.2	0.2	No
Parking ²	61	50	250	47.0	57.0	57.4	0.4	No
Landscape Maintenance	70	5	104	43.6	57.0	57.2	0.2	No

1. Source for reference level: Elliott H. Berger, Rick Neitzel, and Cynthia A. Kladden, *Noise Navigator Sound Level Database with Over 1700 Measurement Values*, July 6, 2010.

2. Source for reference level: Kariel, H. G., *Noise in Rural Recreational Environments*, Canadian Acoustics 19(5), 3-10, 1991.

3. Calculated using the inverse square law formula for sound attenuation: $dBA_2 = dBA_1 + 20\log(d_1/d_2)$, where dBA_2 = estimated noise level at receptor; dBA_1 = reference noise level; d_1 = reference distance; d_2 = receptor location distance.

4. Measured ambient noise levels ranged from 50.3 dBA and 65.6 dBA (refer to [Table 8](#)). The lowest measured level at the closest residential receptor is conservatively used for this evaluation.