

# **APPENDIX F**

## **Noise Data**



<b>Site Number:</b> NM-1			
<b>Recorded By:</b> Darshan Shivaiah, Winnie Woo			
<b>Job Number:</b> 192691			
<b>Date:</b> 11/01/23			
<b>Time:</b> 10:17 a.m.			
<b>Location:</b> Along the sidewalk of Division Street, at intersection of an unpaved road			
<b>Source of Ambient Noise:</b> Traffic noise along Division Street			
<b>Source of Peak Noise:</b> Trucks passing by			
Noise Data			
Leq (dB)	Lmax(dB)	Lmin (dB)	Peak (dB)
68.0	39.0	87.6	103.4

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	3011133	03/10/2022	
	Microphone	Brüel & Kjær	4189	3086765	03/10/2022	
	Preamp	Brüel & Kjær	ZC 0032	25380	03/10/2022	
	Calibrator	Brüel & Kjær	4231	2545667	03/10/2022	
Weather Data						
Est.	Duration: 10 minutes			Sky: Sunny		
	Note: dBA Offset = 0.02			Sensor Height (ft): 5 ft		
	Wind Ave Speed (mph / m/s)		Temperature (degrees Fahrenheit)		Barometer Pressure (inches)	
	3 mph		66		39	

**Photo of Measurement Location**





2250

Instrument:		2250
Application:		BZ7225 Version 4.7.6
Start Time:		01/11/2023 10:17:51
End Time:		01/11/2023 10:27:51
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.00

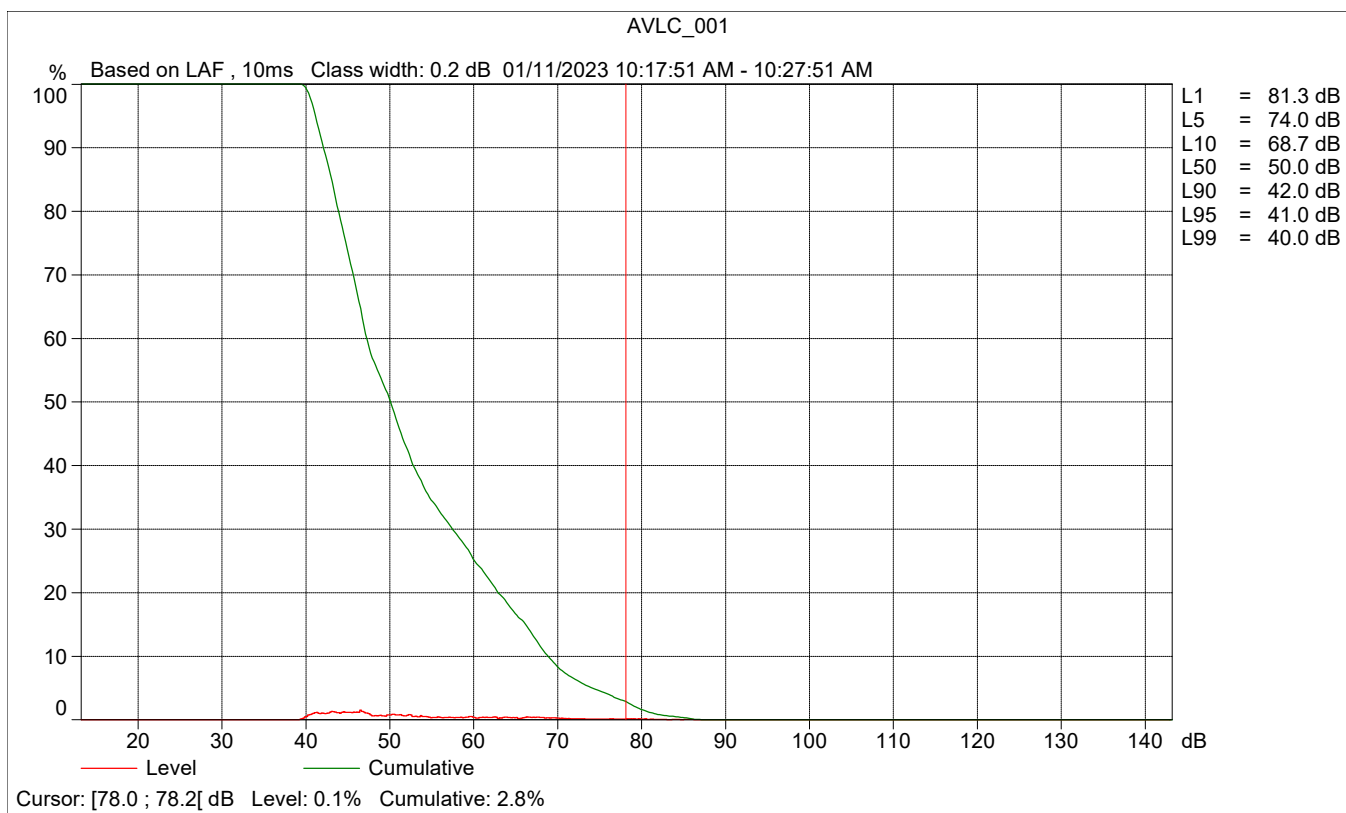
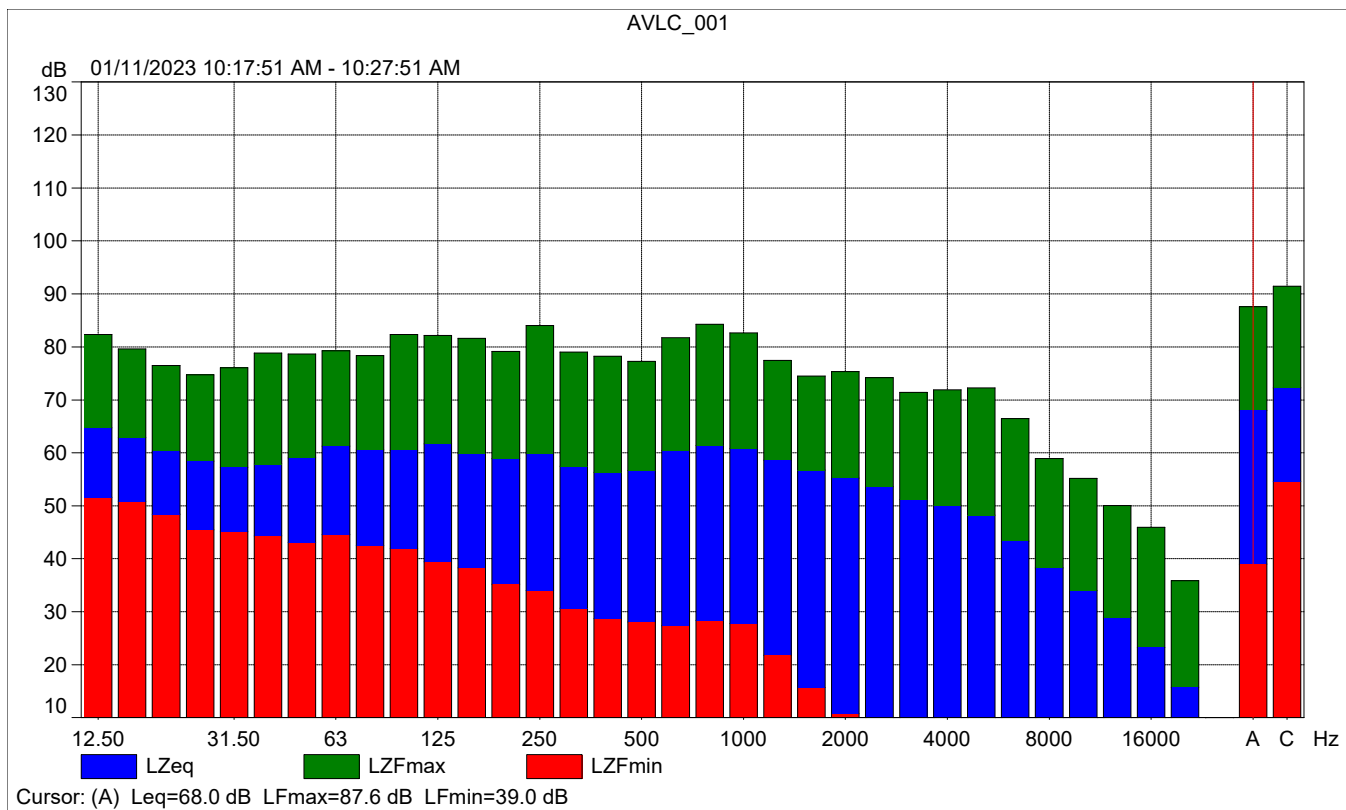
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

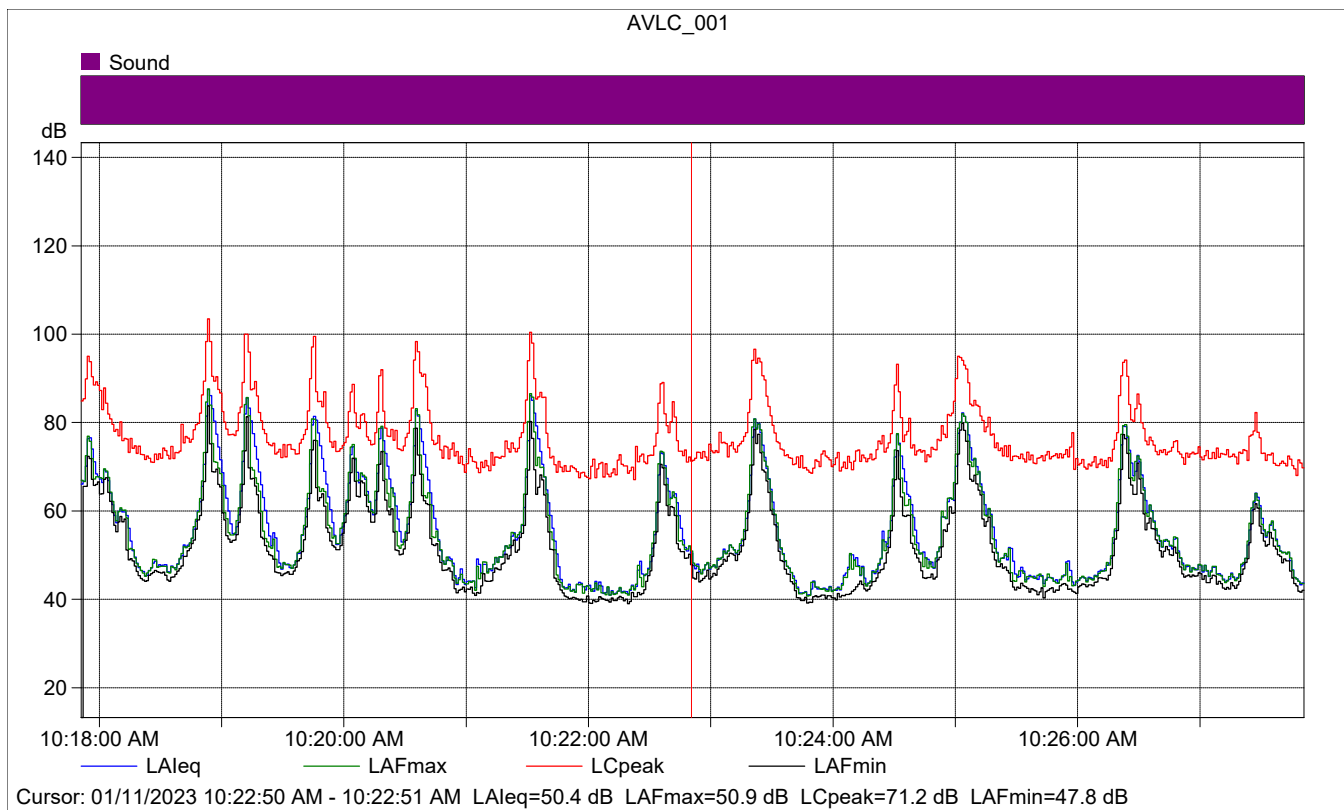
Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Free-field

Calibration Time:		01/11/2023 10:12:27
Calibration Type:		External reference
Sensitivity:		44.2486479878426 mV/Pa

AVLC\_001

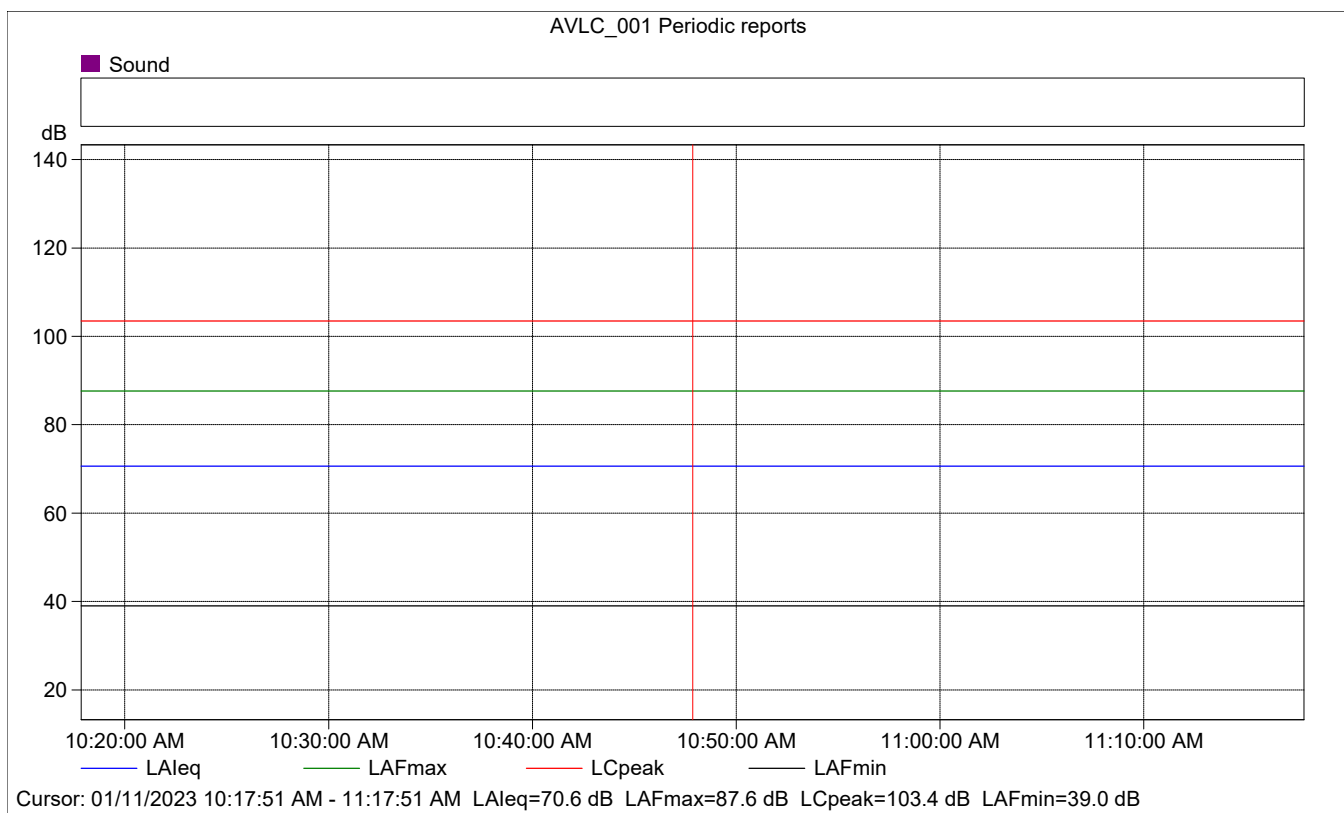
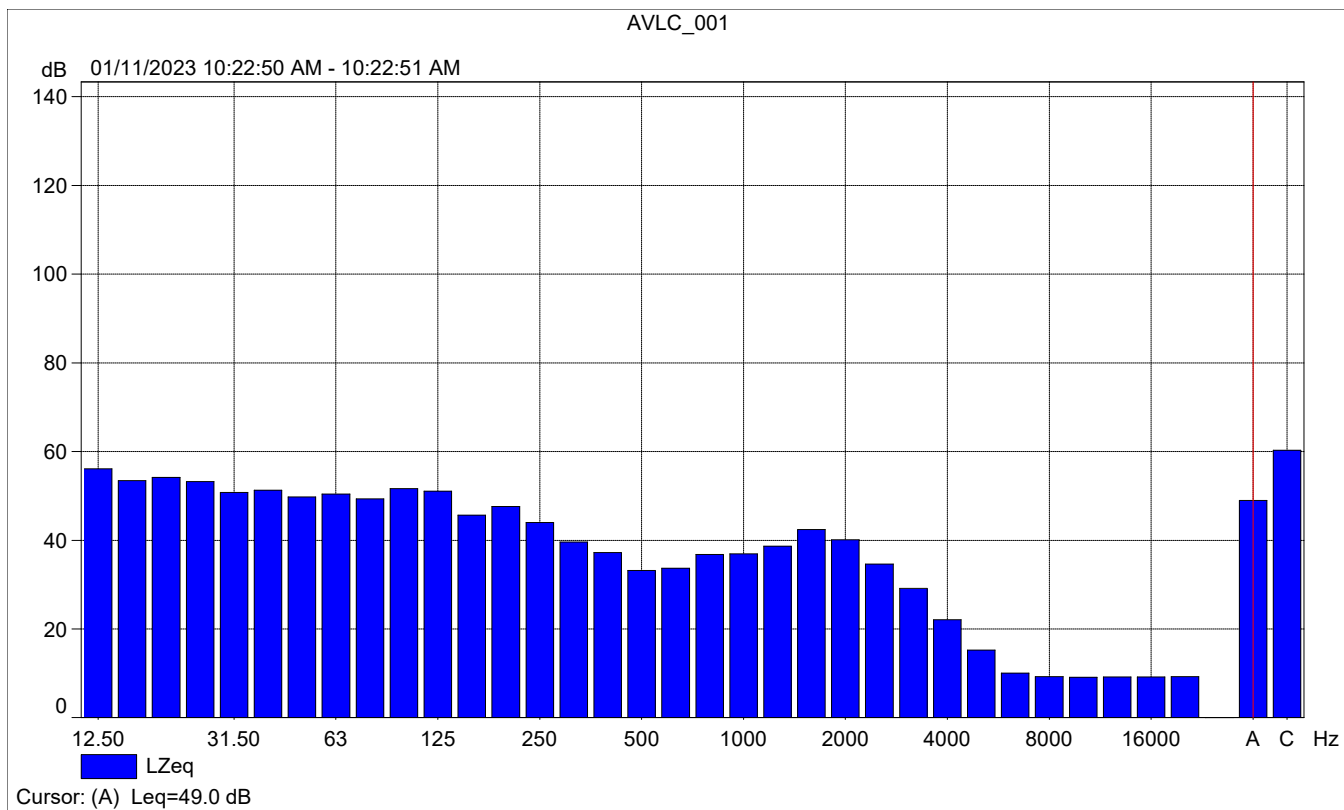
	Start time	End time	Elapsed time	Overload [%]	L <sub>Aeq</sub> [dB]	L <sub>AFmax</sub> [dB]	L <sub>AFmin</sub> [dB]
Value				0.00	68.0	87.6	39.0
Time	10:17:51 AM	10:27:51 AM	0:10:00				
Date	01/11/2023	01/11/2023					





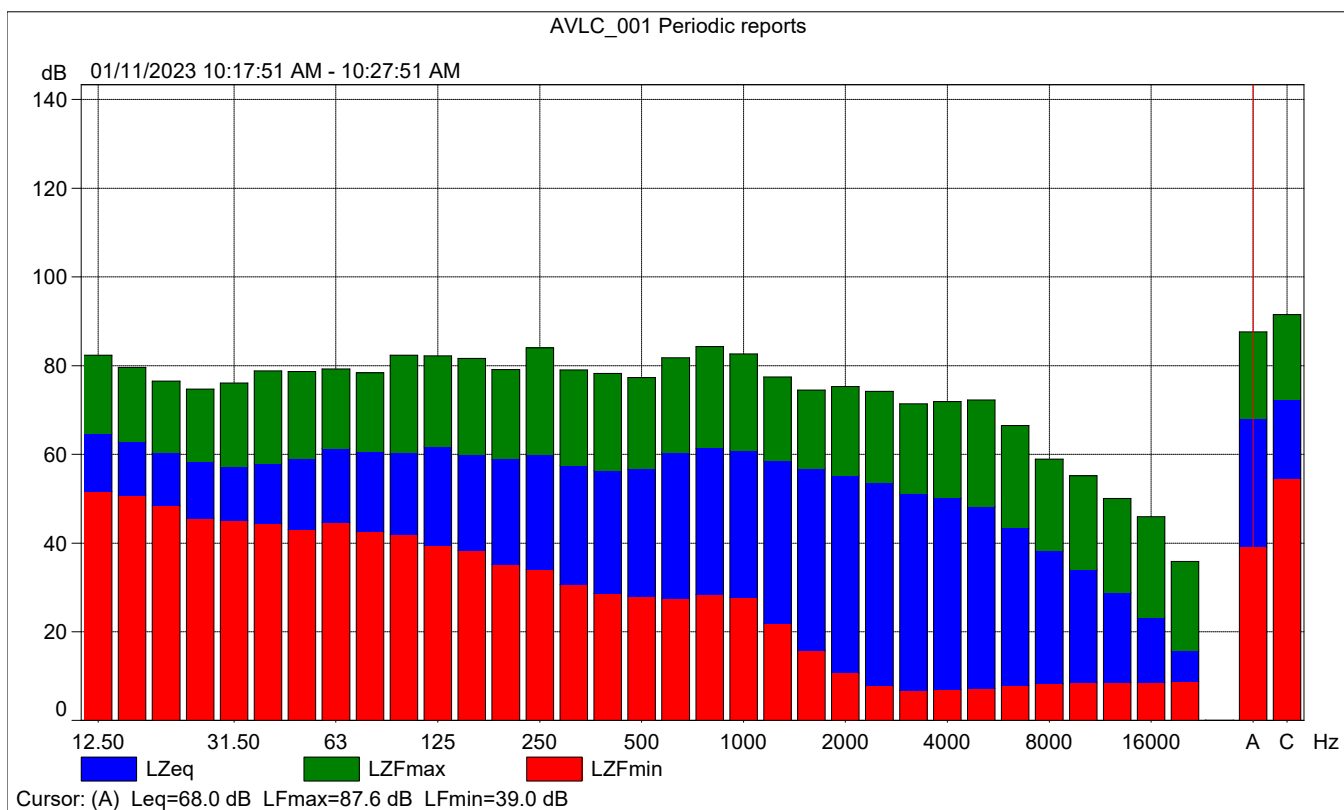
### AVLC\_001

	Start time	Elapsed time	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			50.4	50.9	47.8
Time	10:22:50 AM	0:00:01			
Date	01/11/2023				



# AVLC\_001 Periodic reports

	Start time	Elapsed time	Overload [%]	LAFeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	70.6	87.6	39.0
Time	10:17:51 AM	0:10:00				
Date	01/11/2023					

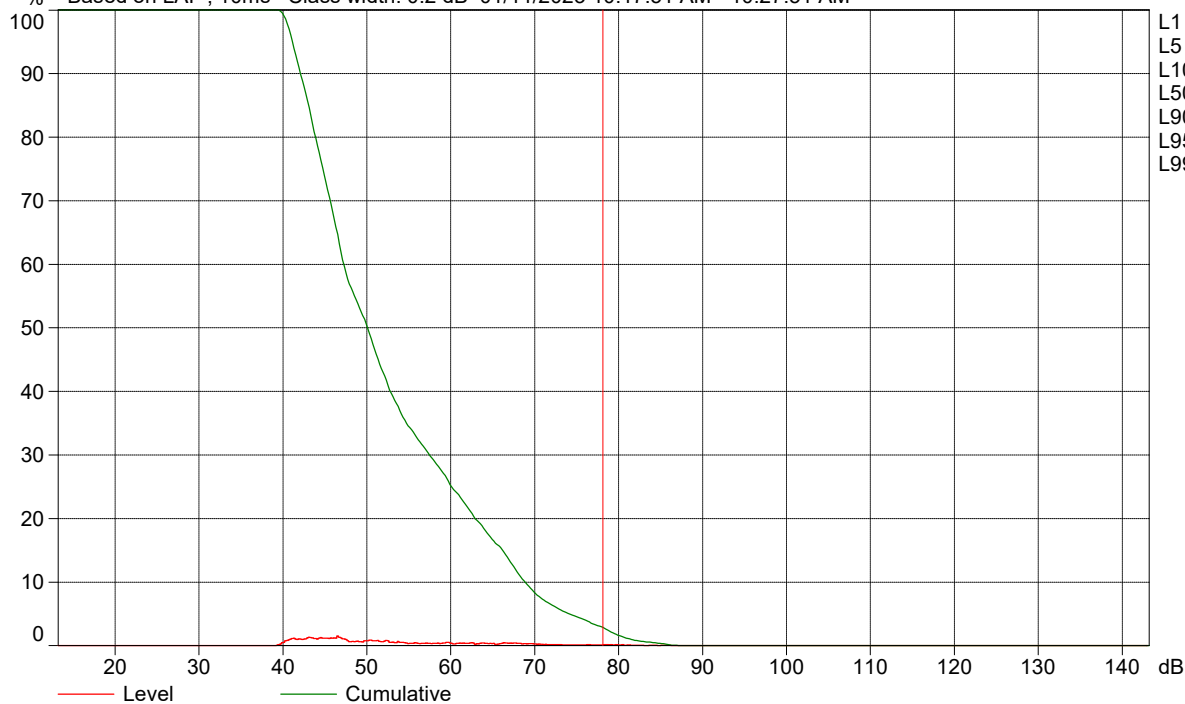






AVLC\_001 Periodic reports

% Based on LAF, 10ms Class width: 0.2 dB 01/11/2023 10:17:51 AM - 10:27:51 AM



- L1 = 81.3 dB
- L5 = 74.0 dB
- L10 = 68.7 dB
- L50 = 50.0 dB
- L90 = 42.0 dB
- L95 = 41.0 dB
- L99 = 40.0 dB

Cursor: [78.0 ; 78.2] dB Level: 0.1% Cumulative: 2.8%

<b>Site Number:</b> NM-2			
<b>Recorded By:</b> Darshan Shivaiah, Winnie Woo			
<b>Job Number:</b> 192691			
<b>Date:</b> 11/01/23			
<b>Time:</b> 10:36 a.m.			
<b>Location:</b> On the southeast corner of Division Street and East Avenue G intersection			
<b>Source of Ambient Noise:</b> Traffic noise along Division Street and East Avenue G			
<b>Source of Peak Noise:</b> Trucks passing by			
Noise Data			
Leq (dB)	Lmax(dB)	Lmin (dB)	Peak (dB)
68.1	37.9	90.9	110.2

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	3011133	03/10/2022	
	Microphone	Brüel & Kjær	4189	3086765	03/10/2022	
	Preamp	Brüel & Kjær	ZC 0032	25380	03/10/2022	
	Calibrator	Brüel & Kjær	4231	2545667	03/10/2022	
Weather Data						
Est.	Duration: 10 minutes			Sky: Sunny		
	Note: dBA Offset = 0.02			Sensor Height (ft): 5 ft		
	Wind Ave Speed (mph / m/s)		Temperature (degrees Fahrenheit)		Barometer Pressure (inches)	
	3 mph		66		39	

**Photo of Measurement Location**



2250

Instrument:		2250
Application:		BZ7225 Version 4.7.6
Start Time:		01/11/2023 10:36:04
End Time:		01/11/2023 10:46:04
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.00

	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

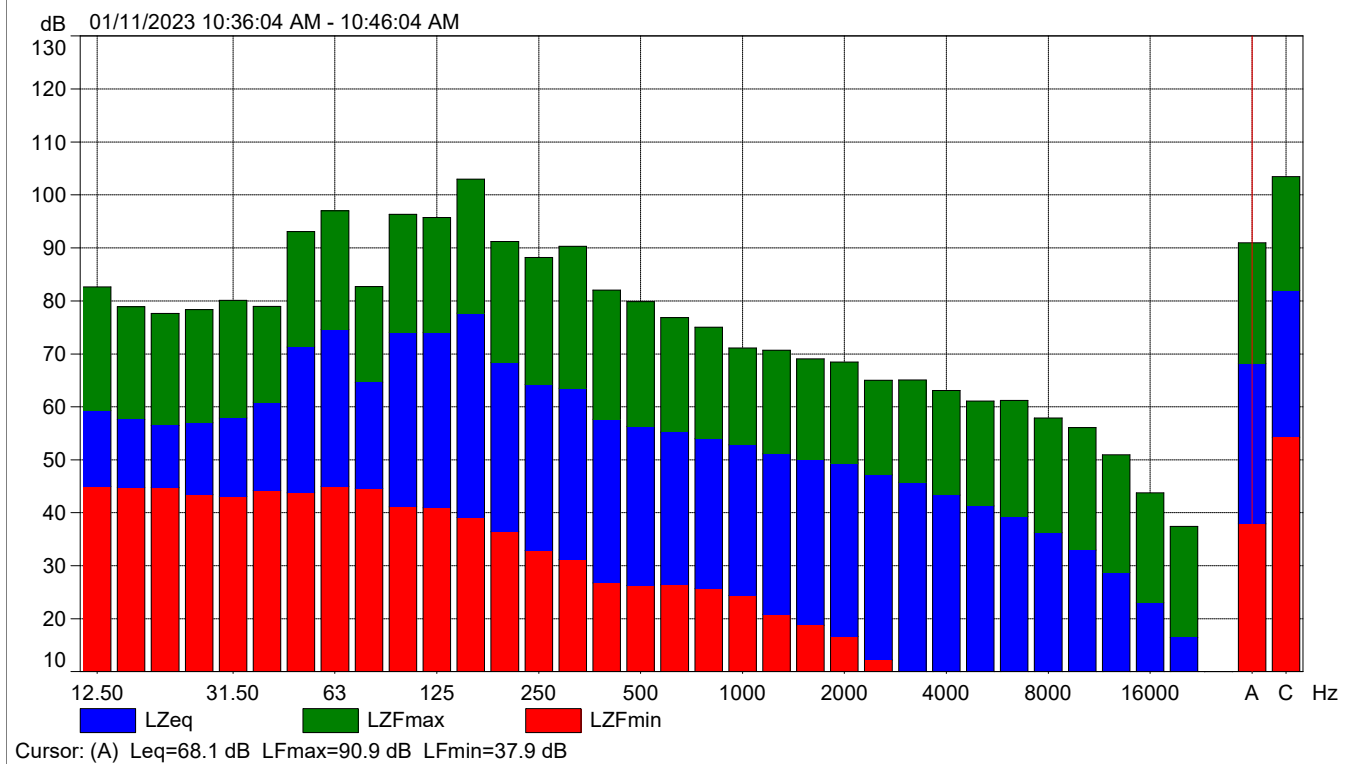
Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Free-field

Calibration Time:		01/11/2023 10:12:27
Calibration Type:		External reference
Sensitivity:		44.2486479878426 mV/Pa

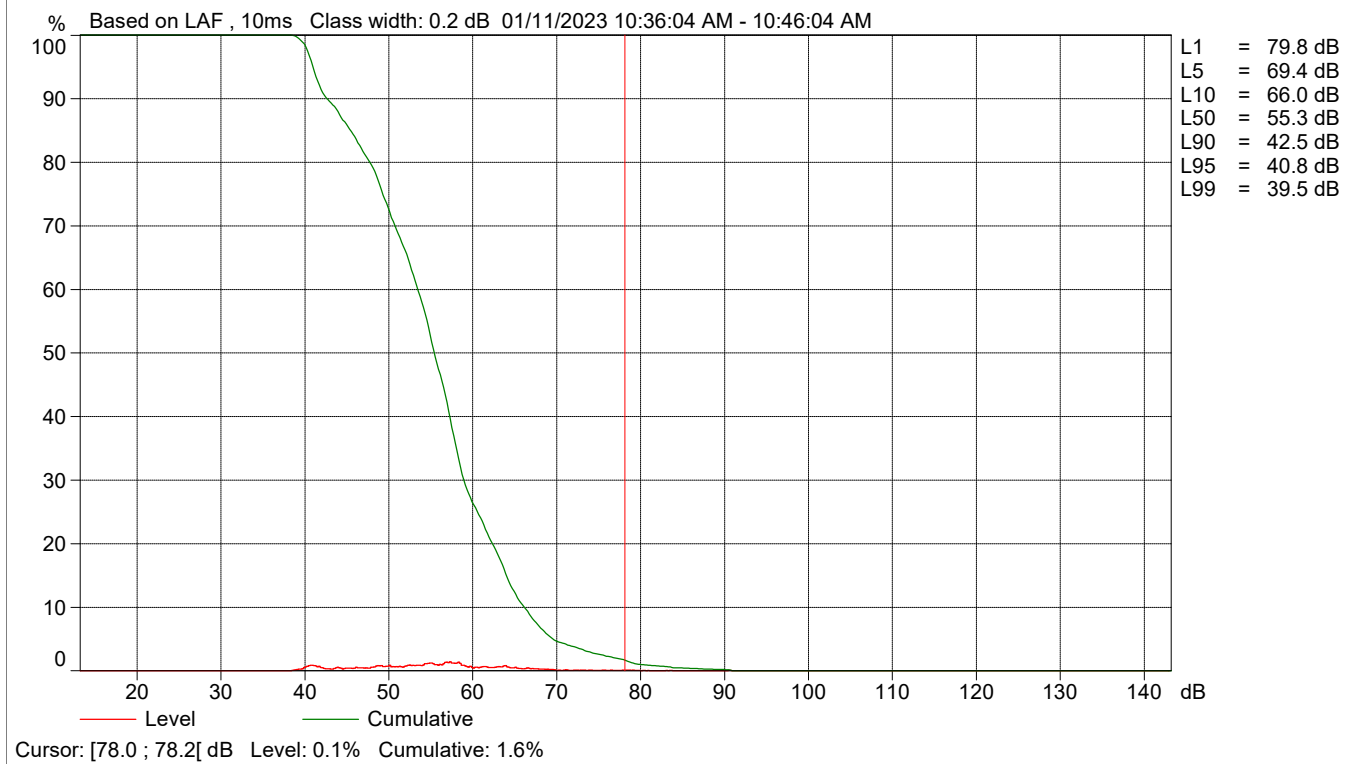
AVLC\_002

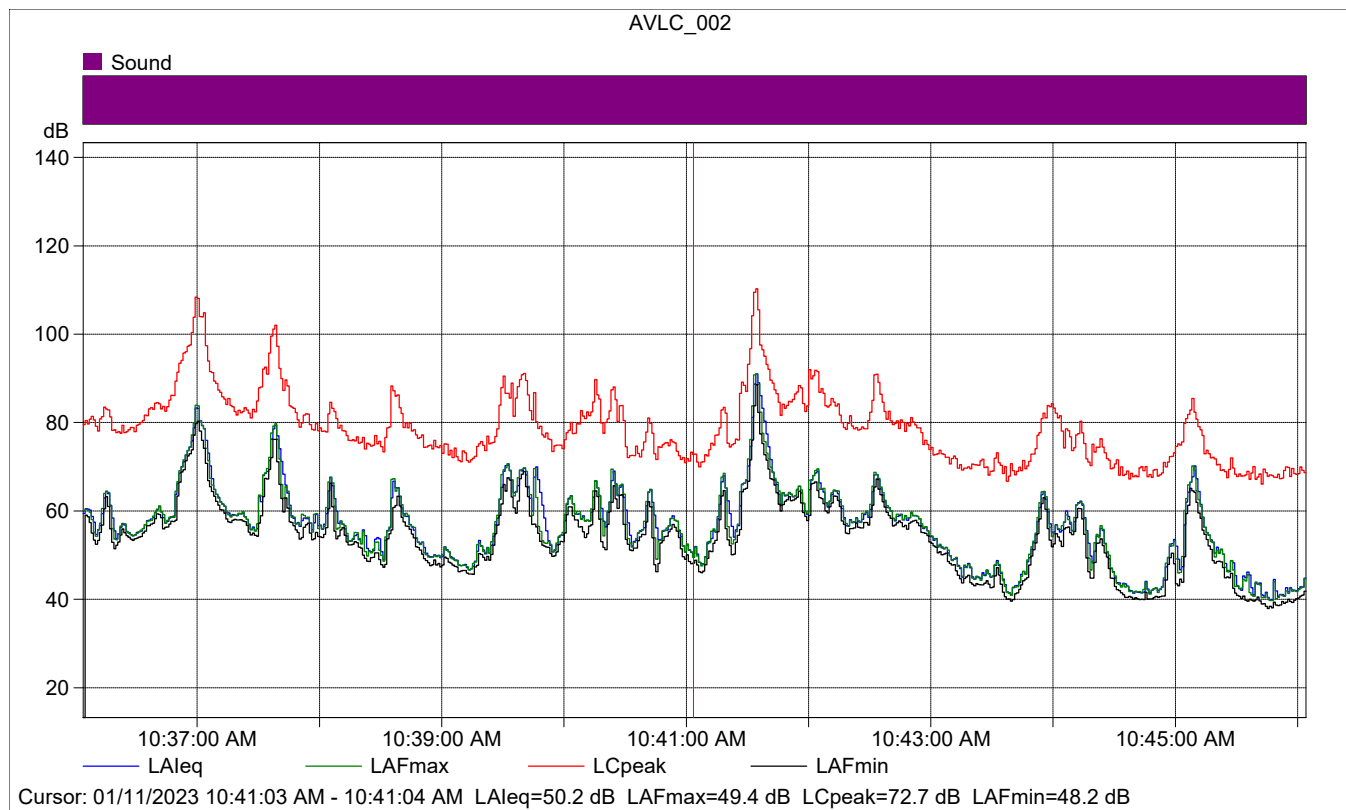
	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	68.1	90.9	37.9
Time	10:36:04 AM	10:46:04 AM	0:10:00				
Date	01/11/2023	01/11/2023					

AVLC\_002



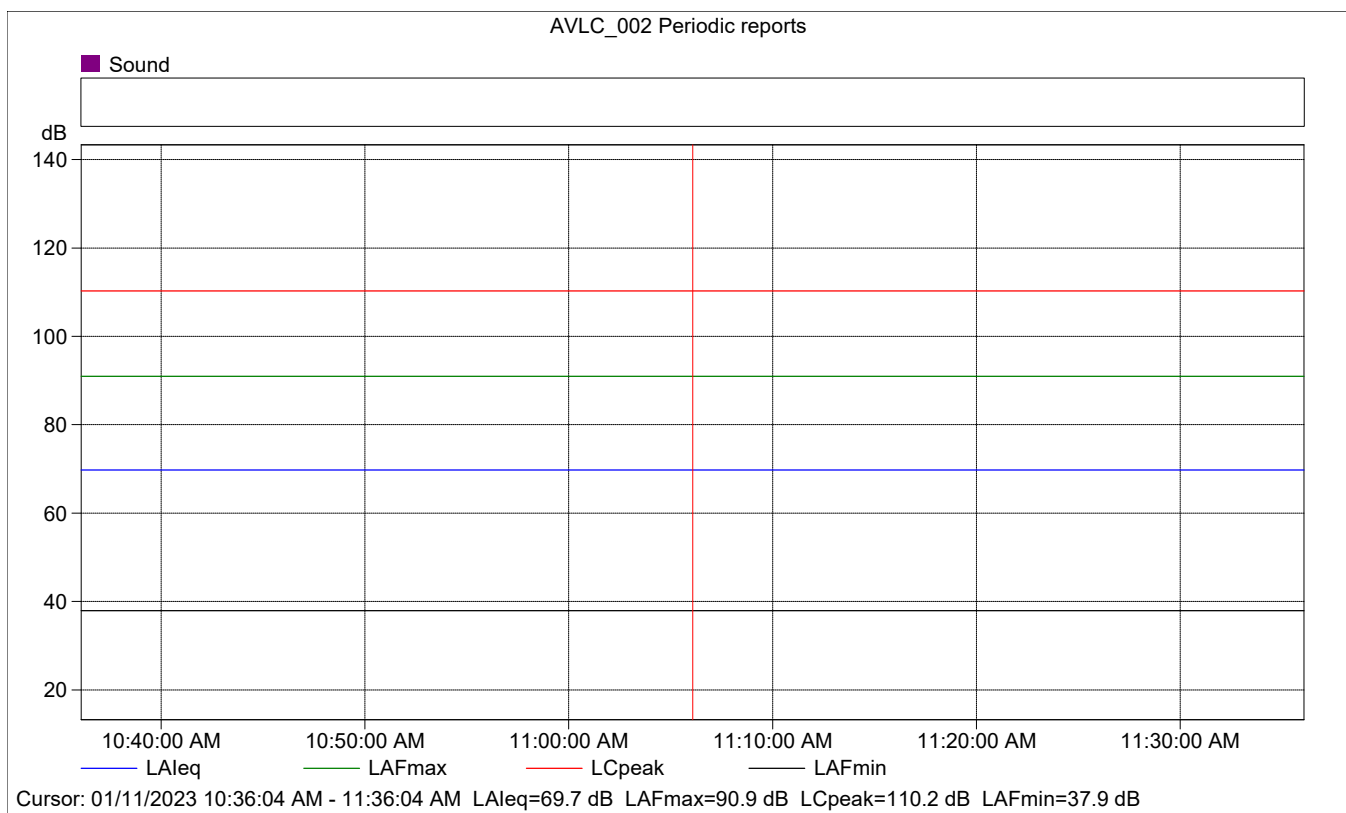
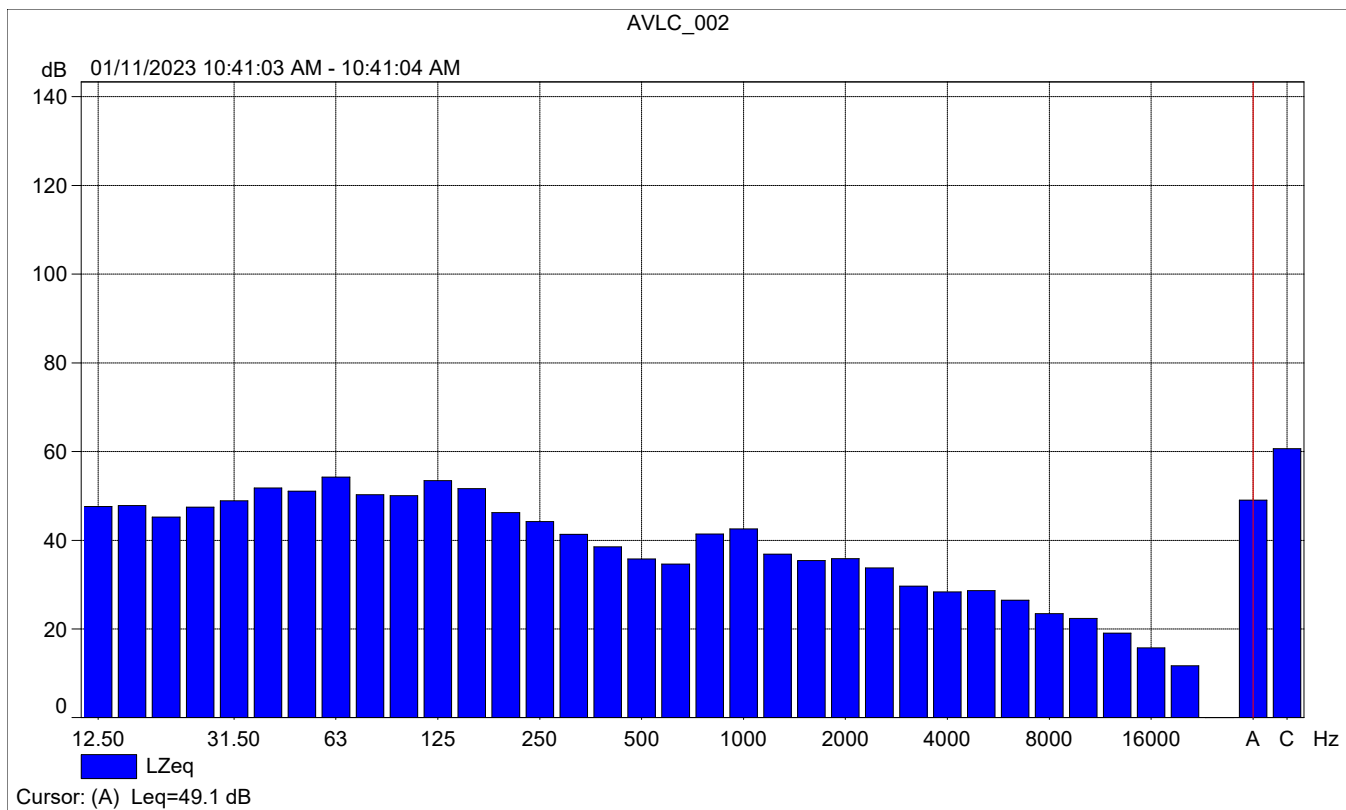
AVLC\_002





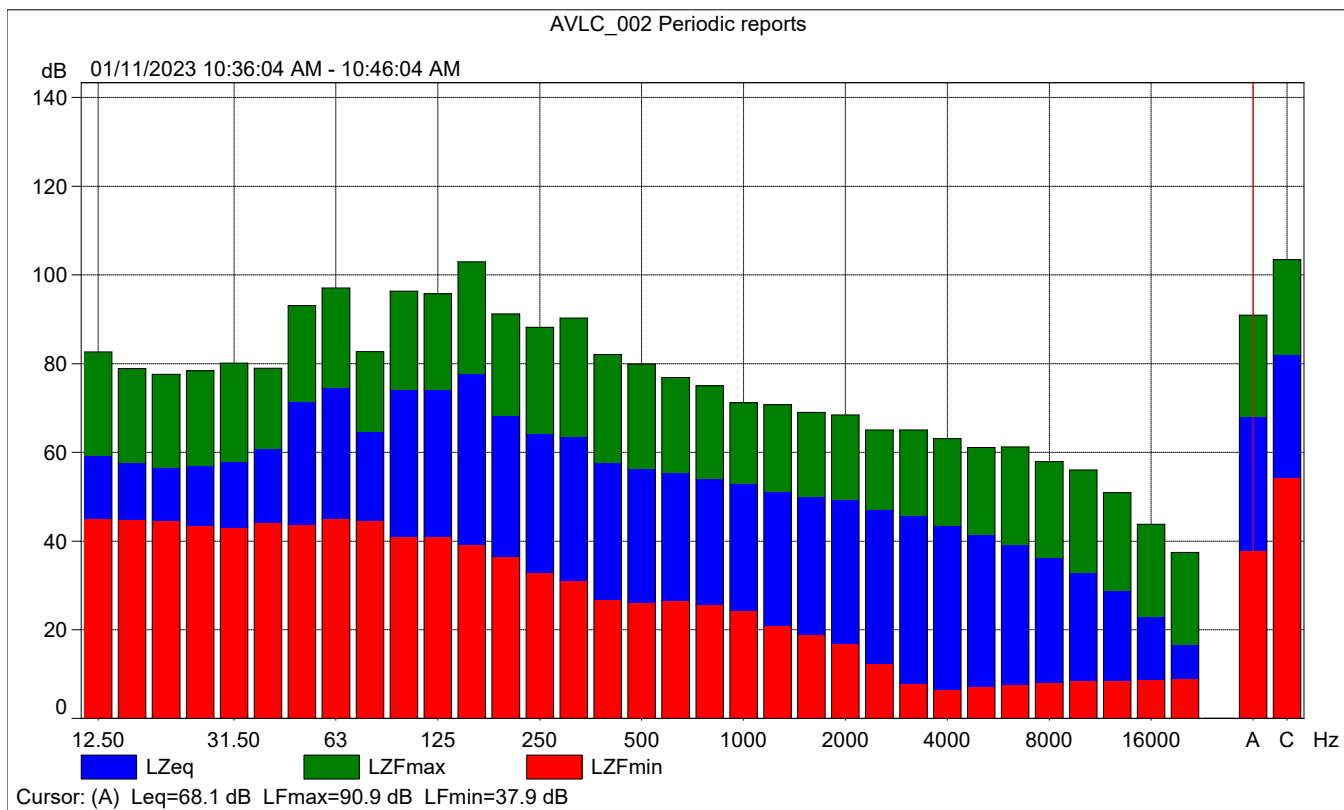
### AVLC\_002

	Start time	Elapsed time	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			50.2	49.4	48.2
Time	10:41:03 AM	0:00:01			
Date	01/11/2023				



### AVLC\_002 Periodic reports

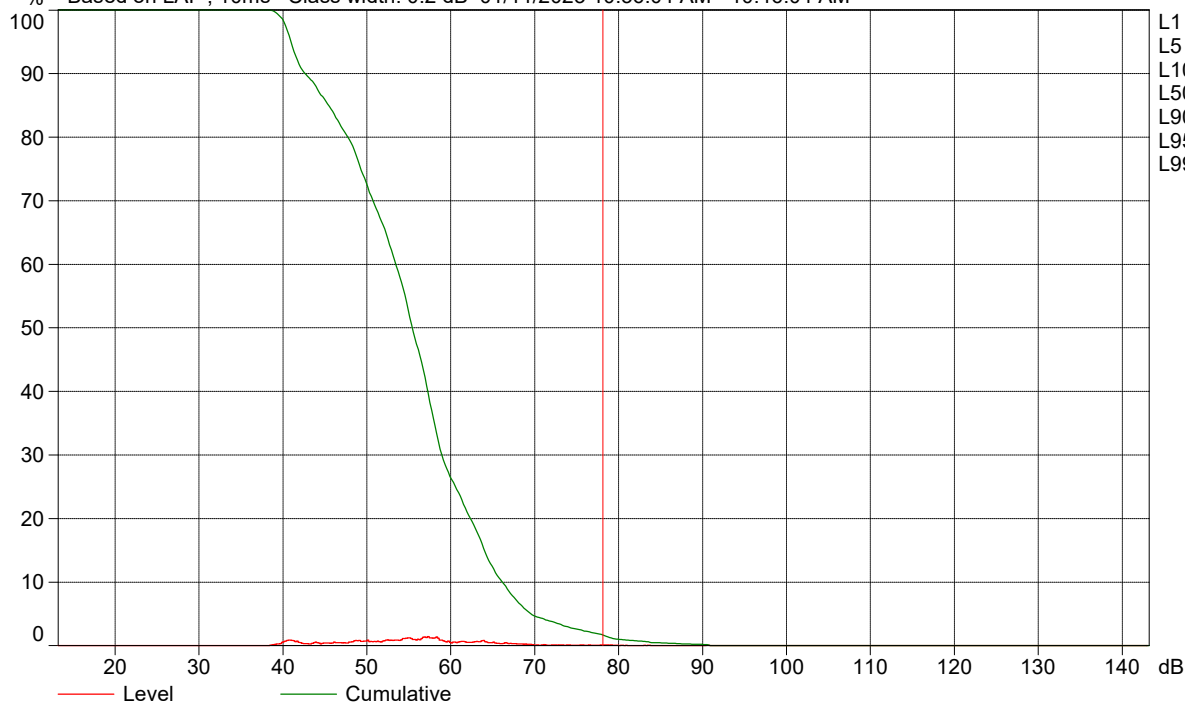
	Start time	Elapsed time	Overload [%]	LAFeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	69.7	90.9	37.9
Time	10:36:04 AM	0:10:00				
Date	01/11/2023					





AVLC\_002 Periodic reports

% Based on LAF, 10ms Class width: 0.2 dB 01/11/2023 10:36:04 AM - 10:46:04 AM



- L1 = 79.8 dB
- L5 = 69.4 dB
- L10 = 66.0 dB
- L50 = 55.3 dB
- L90 = 42.5 dB
- L95 = 40.8 dB
- L99 = 39.5 dB

Cursor: [78.0 ; 78.2] dB Level: 0.1% Cumulative: 1.6%



<b>Site Number:</b> NM-3			
<b>Recorded By:</b> Darshan Shivaiah, Winnie Woo			
<b>Job Number:</b> 192691			
<b>Date:</b> 11/01/23			
<b>Time:</b> 10:55 a.m.			
<b>Location:</b> On the sidewalk in front of 45920 Regents Street residence			
<b>Source of Ambient Noise:</b> Traffic noise in the vicinity			
<b>Source of Peak Noise:</b> NA			
Noise Data			
Leq (dB)	Lmax(dB)	Lmin (dB)	Peak (dB)
50.9	42.6	69.3	84.0

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	3011133	03/10/2022	
	Microphone	Brüel & Kjær	4189	3086765	03/10/2022	
	Preamp	Brüel & Kjær	ZC 0032	25380	03/10/2022	
	Calibrator	Brüel & Kjær	4231	2545667	03/10/2022	
Weather Data						
Est.	Duration: 10 minutes			Sky: Sunny		
	Note: dBA Offset = 0.02			Sensor Height (ft): 5 ft		
	Wind Ave Speed (mph / m/s)		Temperature (degrees Fahrenheit)		Barometer Pressure (inches)	
	3 mph		66		39	

**Photo of Measurement Location**





2250

Instrument:		2250
Application:		BZ7225 Version 4.7.6
Start Time:		01/11/2023 10:55:30
End Time:		01/11/2023 11:05:30
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.00

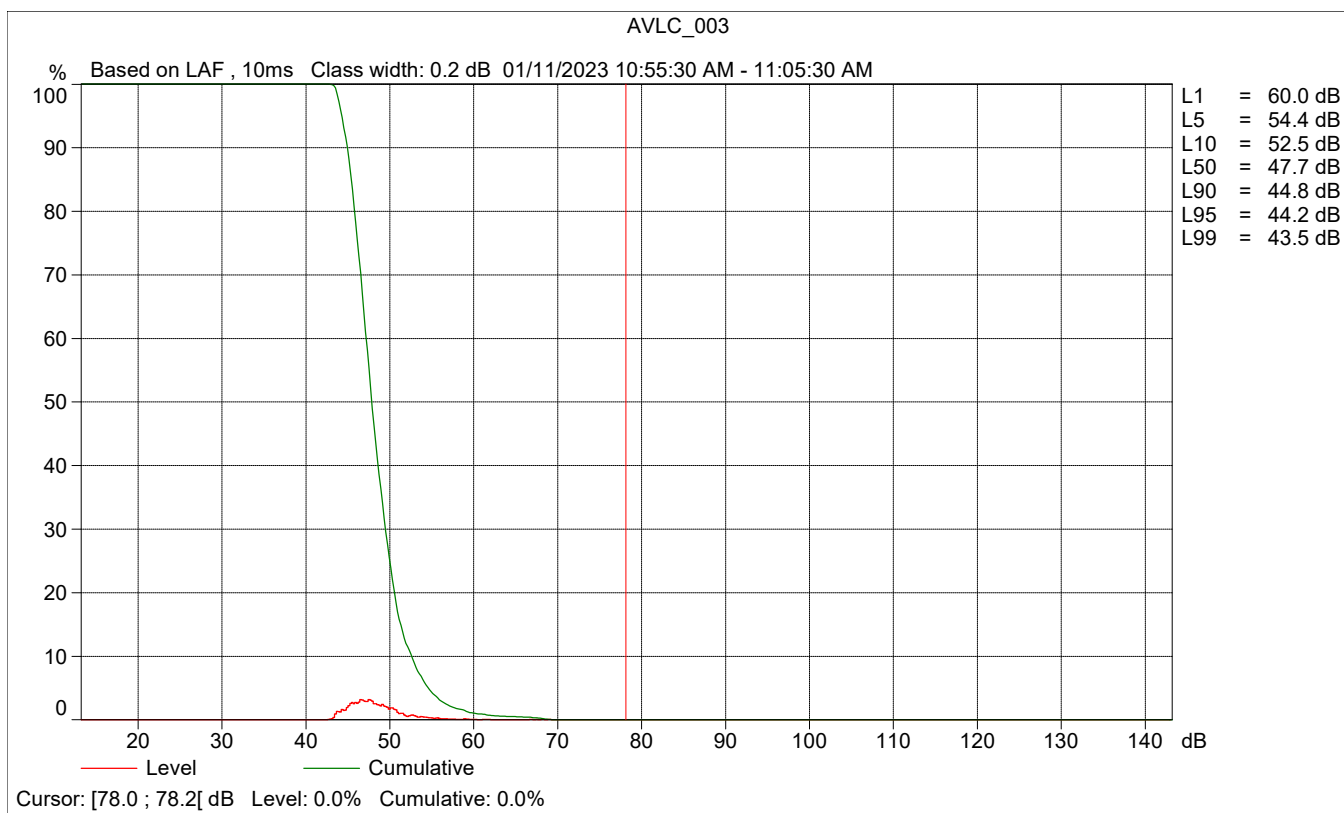
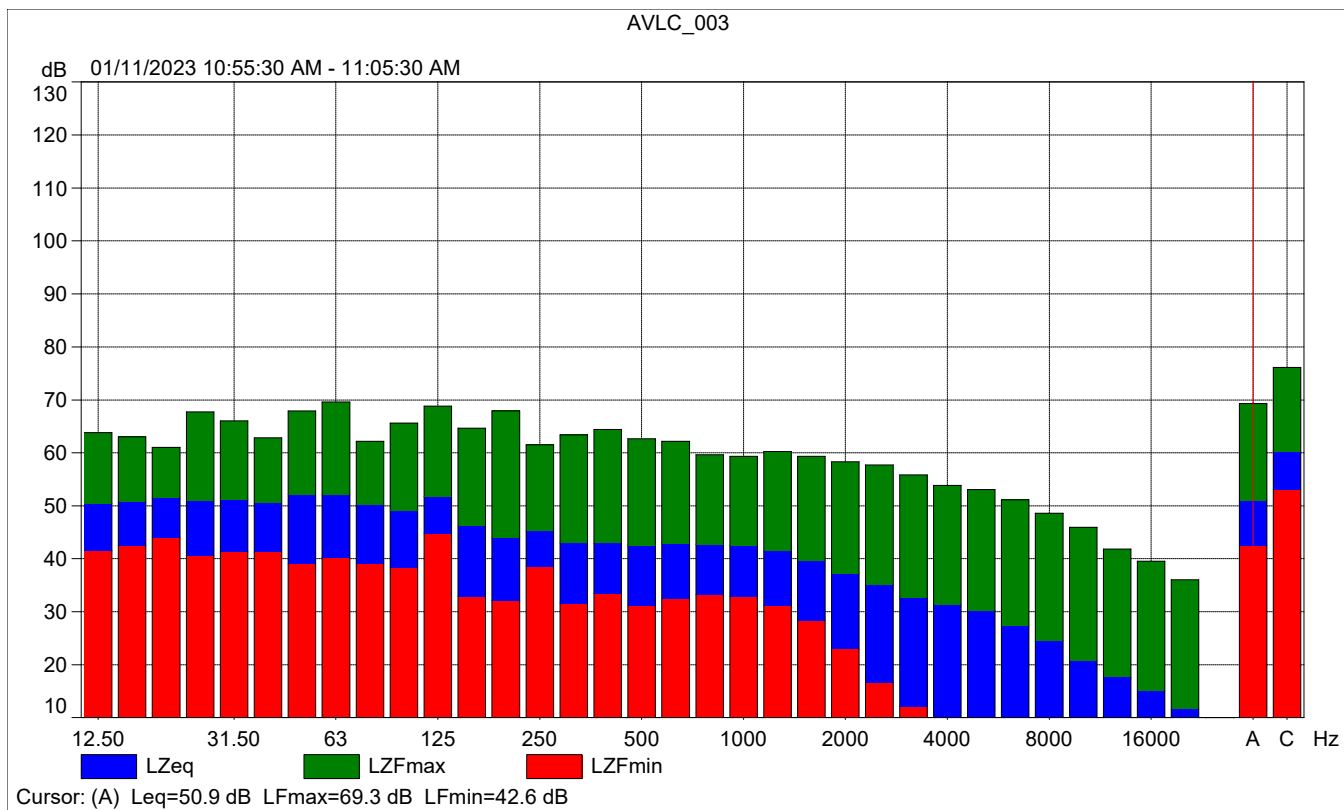
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

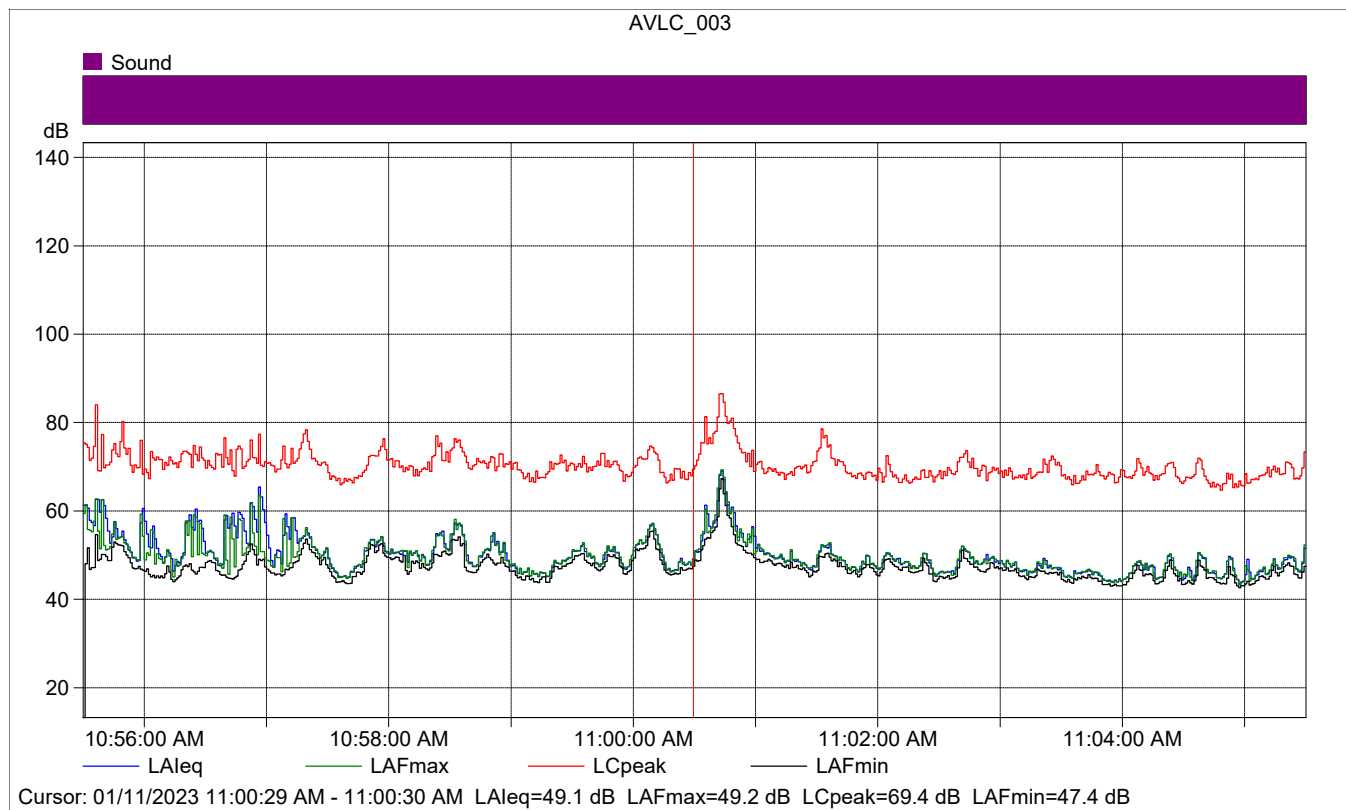
Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Free-field

Calibration Time:		01/11/2023 10:12:27
Calibration Type:		External reference
Sensitivity:		44.2486479878426 mV/Pa

AVLC\_003

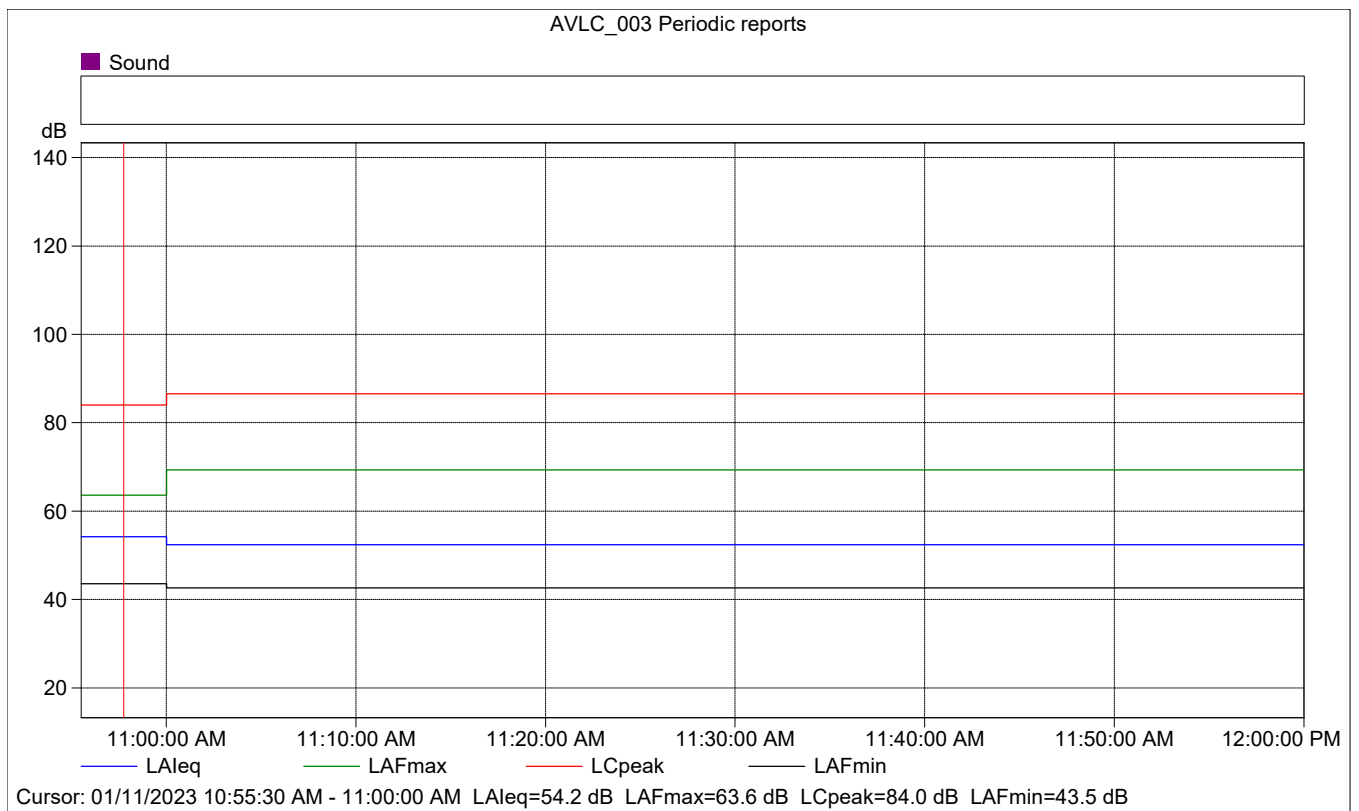
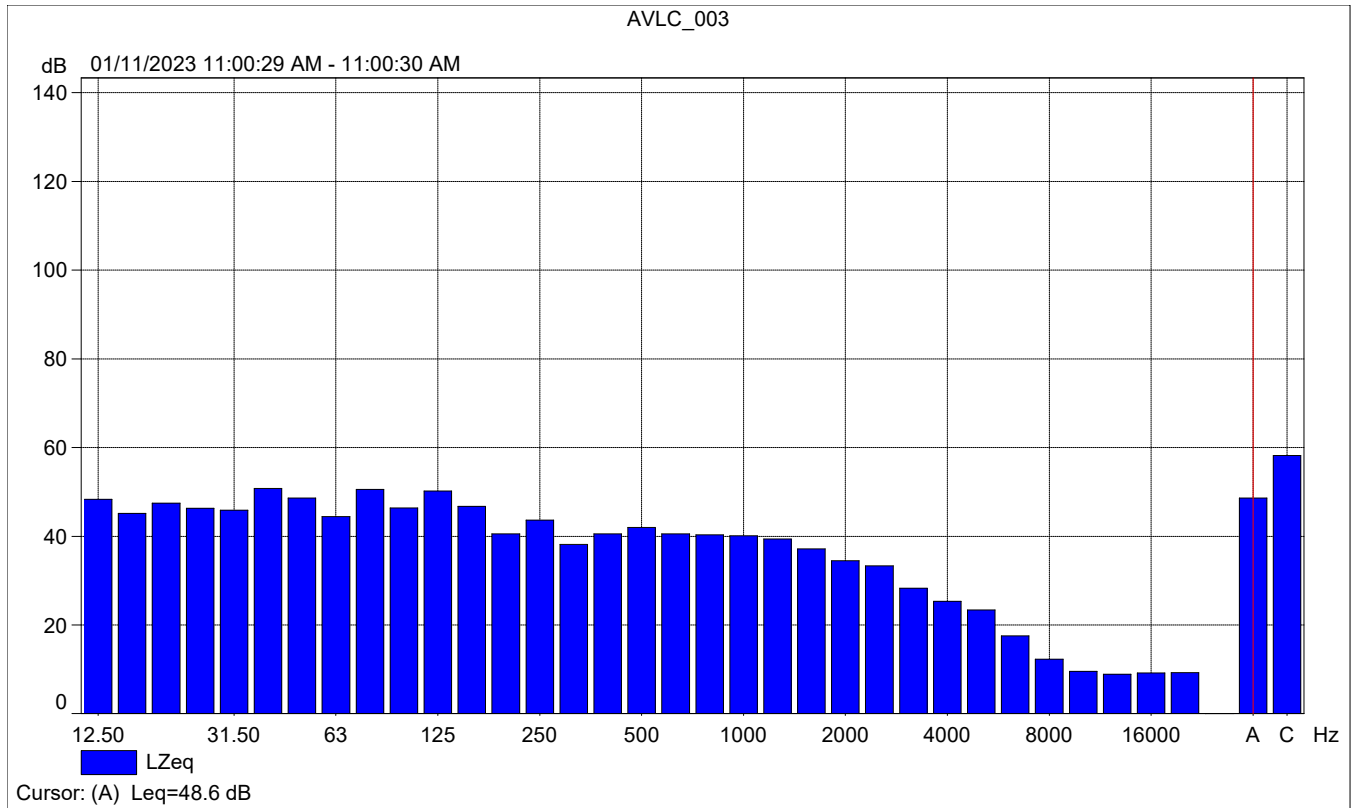
	Start time	End time	Elapsed time	Overload [%]	L <sub>Aeq</sub> [dB]	L <sub>AFmax</sub> [dB]	L <sub>AFmin</sub> [dB]
Value				0.00	50.9	69.3	42.6
Time	10:55:30 AM	11:05:30 AM	0:10:00				
Date	01/11/2023	01/11/2023					





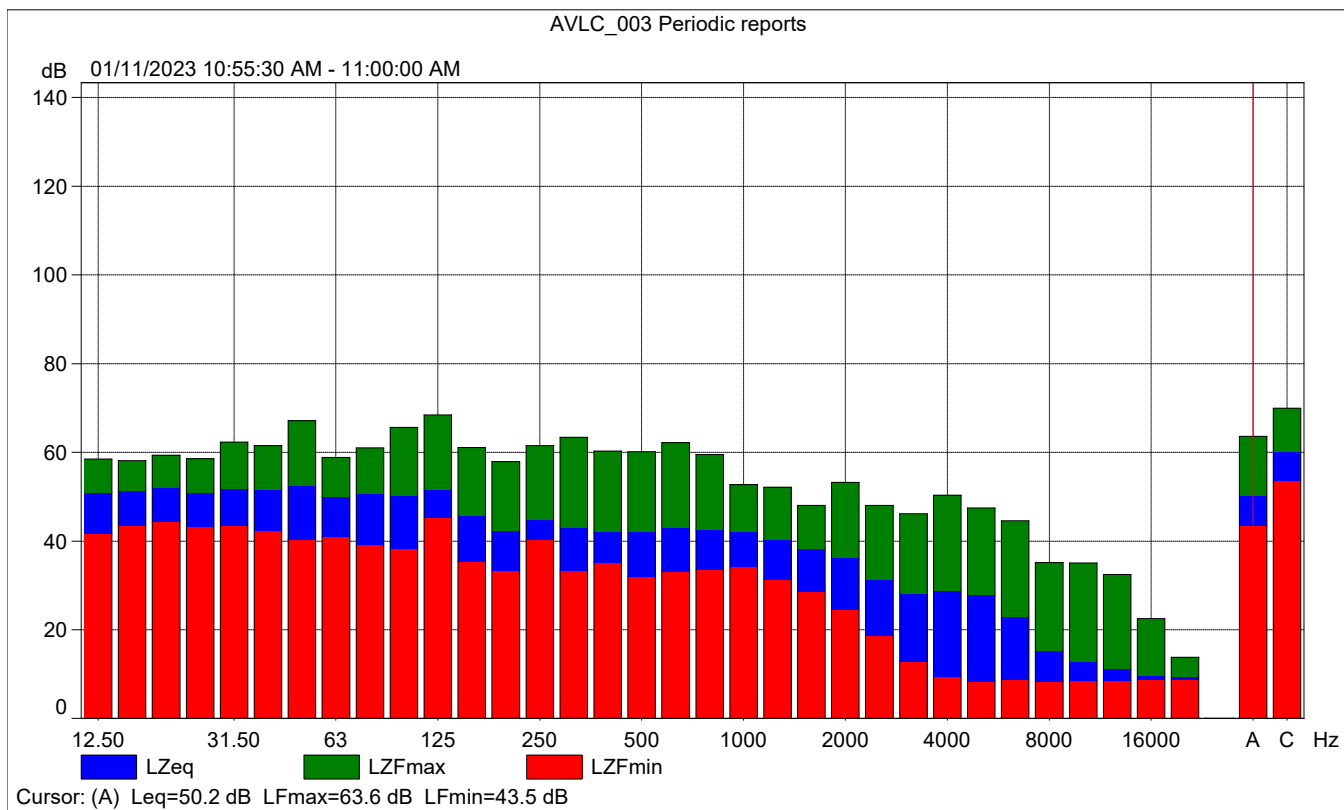
### AVLC\_003

	Start time	Elapsed time	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			49.1	49.2	47.4
Time	11:00:29 AM	0:00:01			
Date	01/11/2023				



### AVLC\_003 Periodic reports

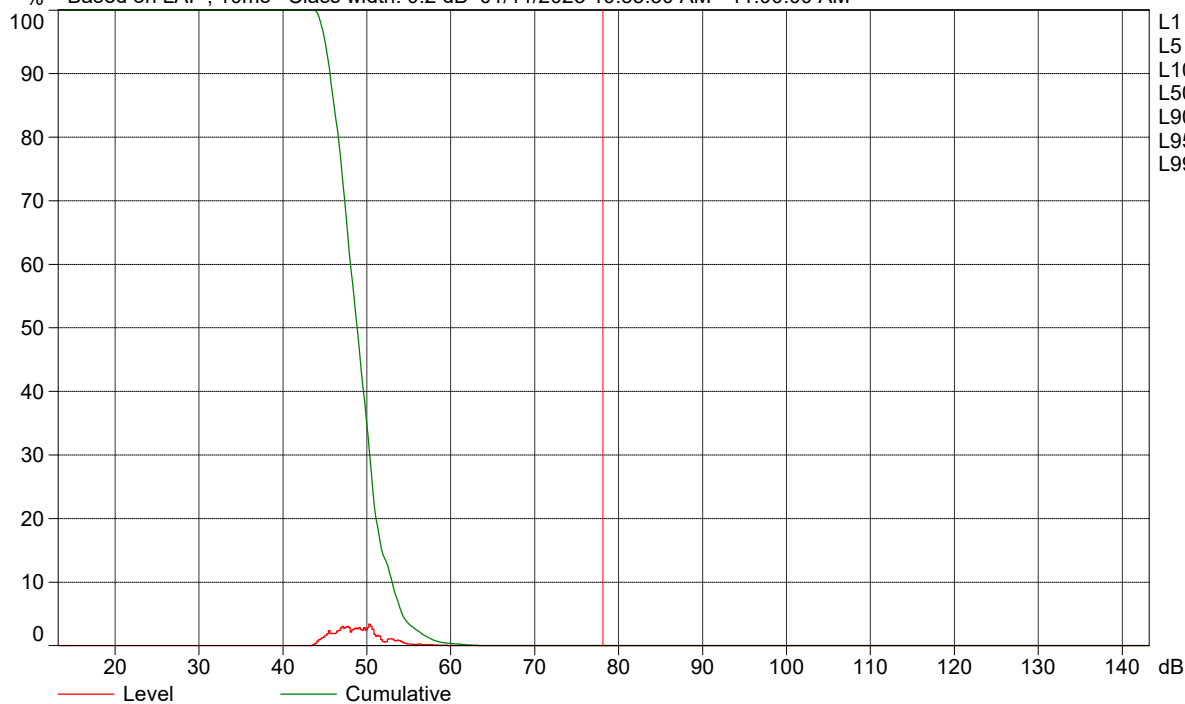
	Start time	Elapsed time	Overload [%]	LAFeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	54.2	63.6	43.5
Time	10:55:30 AM	0:04:30				
Date	01/11/2023					





AVLC\_003 Periodic reports

% Based on LAF, 10ms Class width: 0.2 dB 01/11/2023 10:55:30 AM - 11:00:00 AM



L1	=	57.6 dB
L5	=	54.1 dB
L10	=	52.9 dB
L50	=	48.7 dB
L90	=	45.5 dB
L95	=	44.9 dB
L99	=	44.1 dB

Cursor: [78.0 ; 78.2] dB Level: 0.0% Cumulative: 0.0%

<b>Site Number:</b> NM-4			
<b>Recorded By:</b> Darshan Shivaiah, Winnie Woo			
<b>Job Number:</b> 192691			
<b>Date:</b> 11/01/23			
<b>Time:</b> 11:32 a.m.			
<b>Location:</b> On the northwest corner of 25th Street West and West Avenue F intersection			
<b>Source of Ambient Noise:</b> Traffic noise along West Avenue F			
<b>Source of Peak Noise:</b> Trucks passing by			
Noise Data			
Leq (dB)	Lmax(dB)	Lmin (dB)	Peak (dB)
64.1	35.1	83.3	103.1

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	3011133	03/10/2022	
	Microphone	Brüel & Kjær	4189	3086765	03/10/2022	
	Preamp	Brüel & Kjær	ZC 0032	25380	03/10/2022	
	Calibrator	Brüel & Kjær	4231	2545667	03/10/2022	
Weather Data						
Est.	Duration: 10 minutes			Sky: Sunny		
	Note: dBA Offset = 0.02			Sensor Height (ft): 5 ft		
	Wind Ave Speed (mph / m/s)		Temperature (degrees Fahrenheit)		Barometer Pressure (inches)	
	3 mph		66		39	

**Photo of Measurement Location**





2250

Instrument:		2250
Application:		BZ7225 Version 4.7.6
Start Time:		01/11/2023 11:32:24
End Time:		01/11/2023 11:42:24
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.00

	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

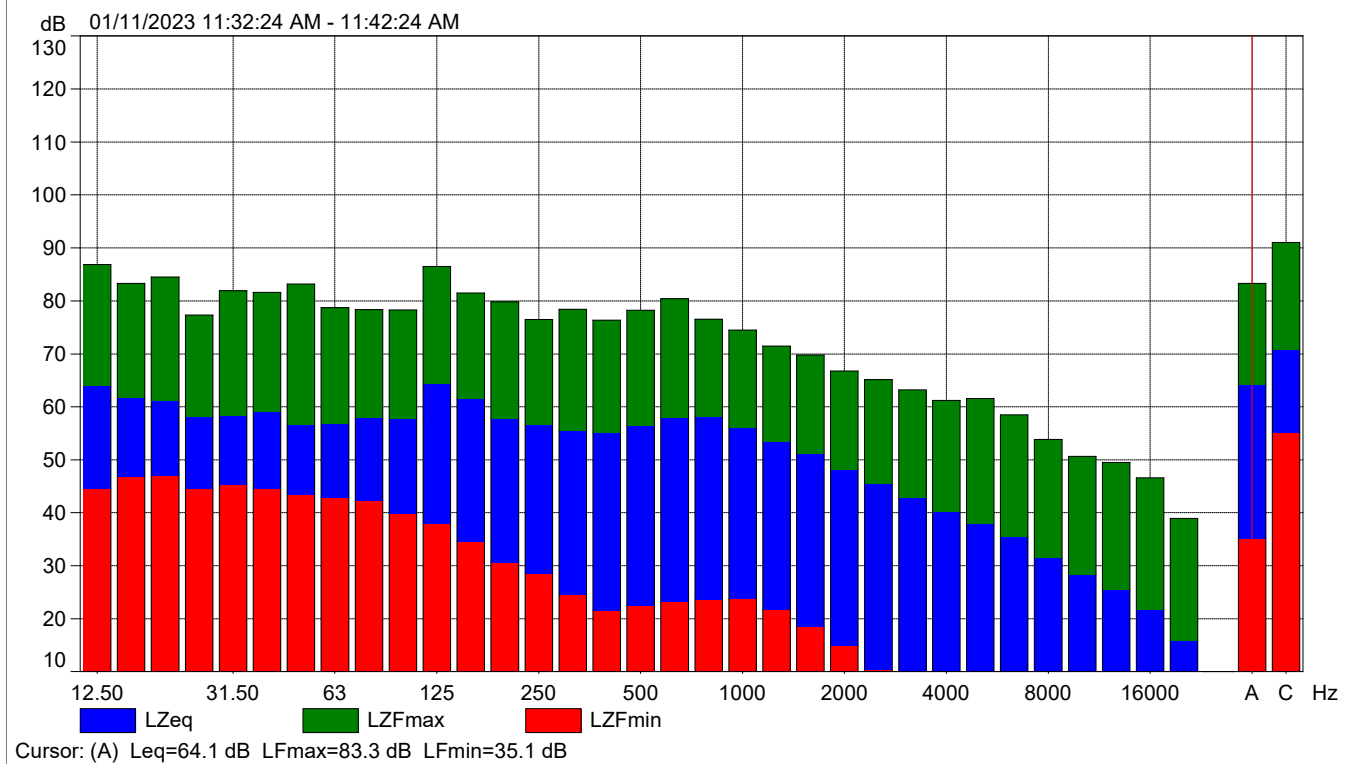
Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Free-field

Calibration Time:		01/11/2023 10:12:27
Calibration Type:		External reference
Sensitivity:		44.2486479878426 mV/Pa

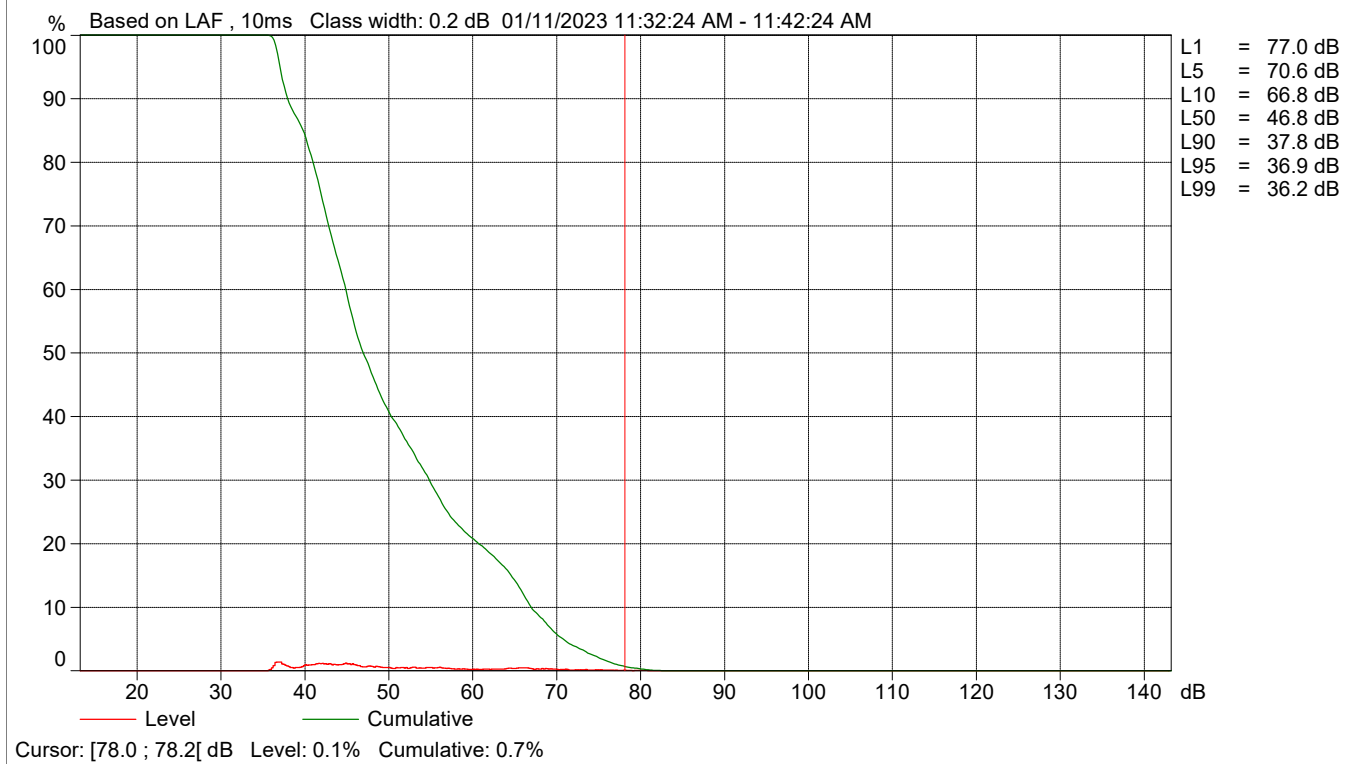
AVLC\_004

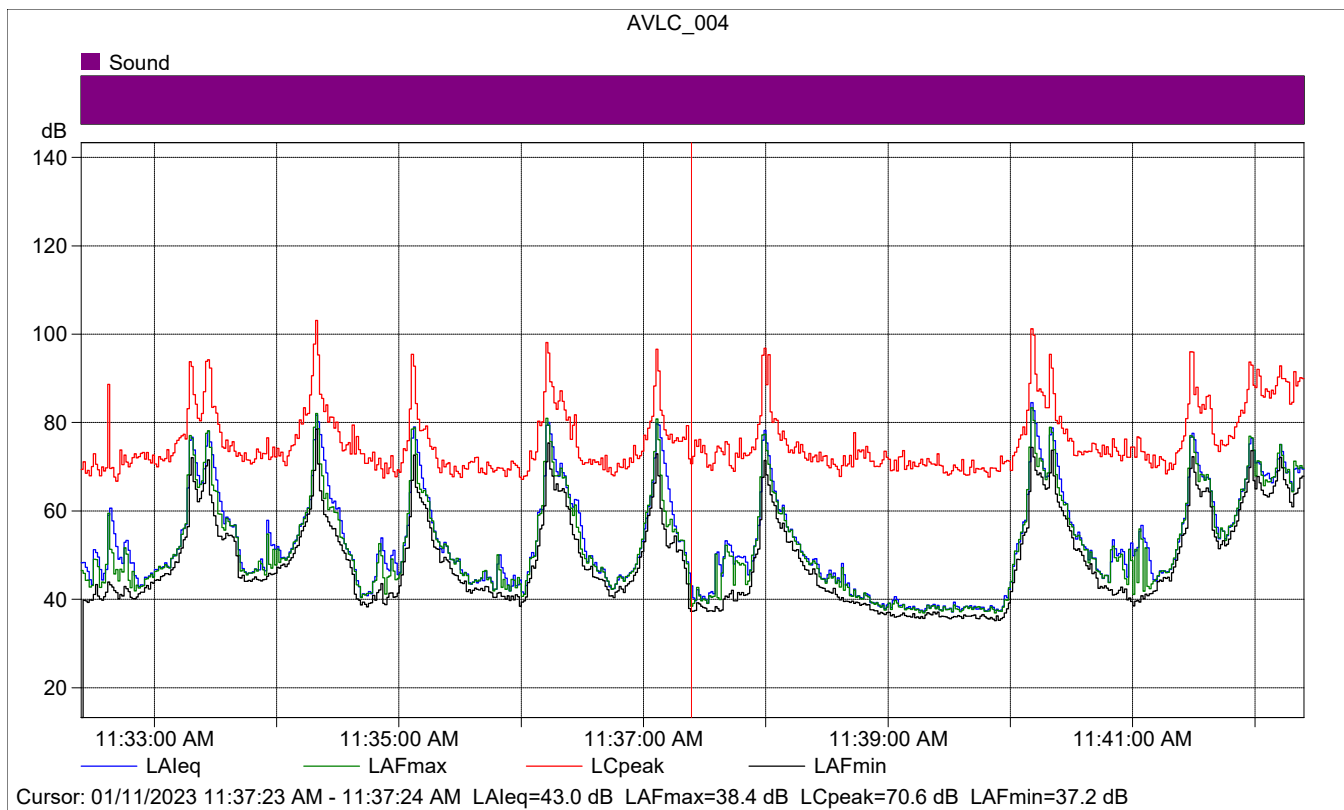
	Start time	End time	Elapsed time	Overload [%]	L <sub>Aeq</sub> [dB]	L <sub>AFmax</sub> [dB]	L <sub>AFmin</sub> [dB]
Value				0.00	64.1	83.3	35.1
Time	11:32:24 AM	11:42:24 AM	0:10:00				
Date	01/11/2023	01/11/2023					

AVLC\_004



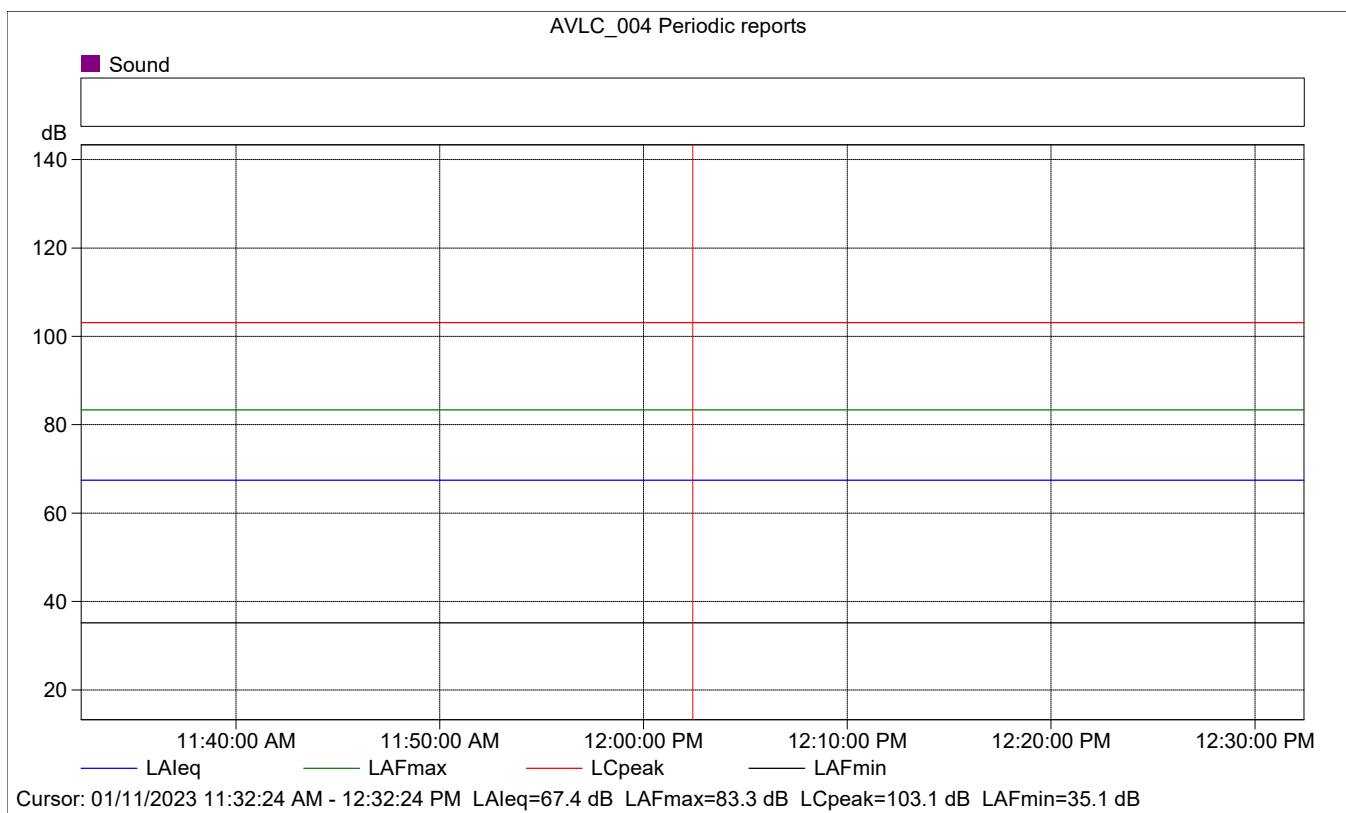
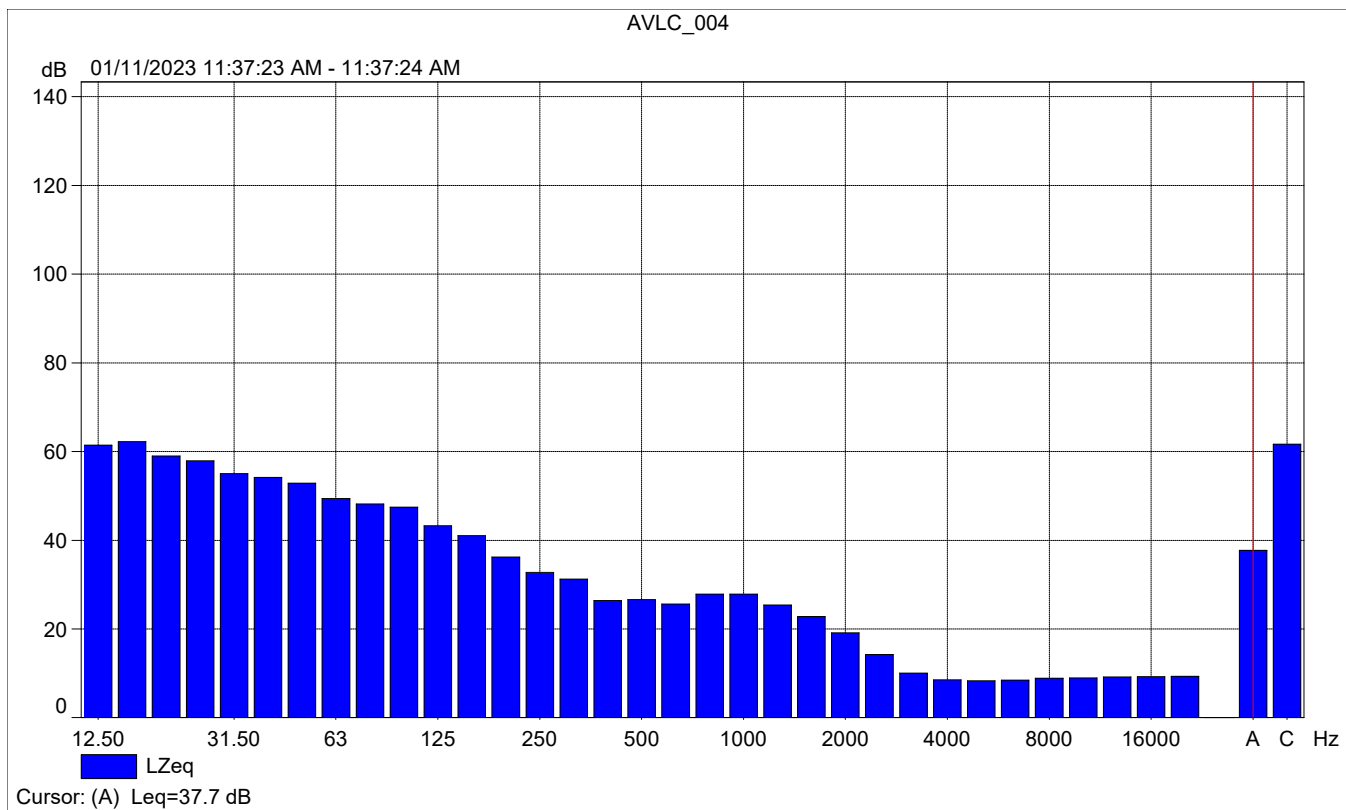
AVLC\_004





### AVLC\_004

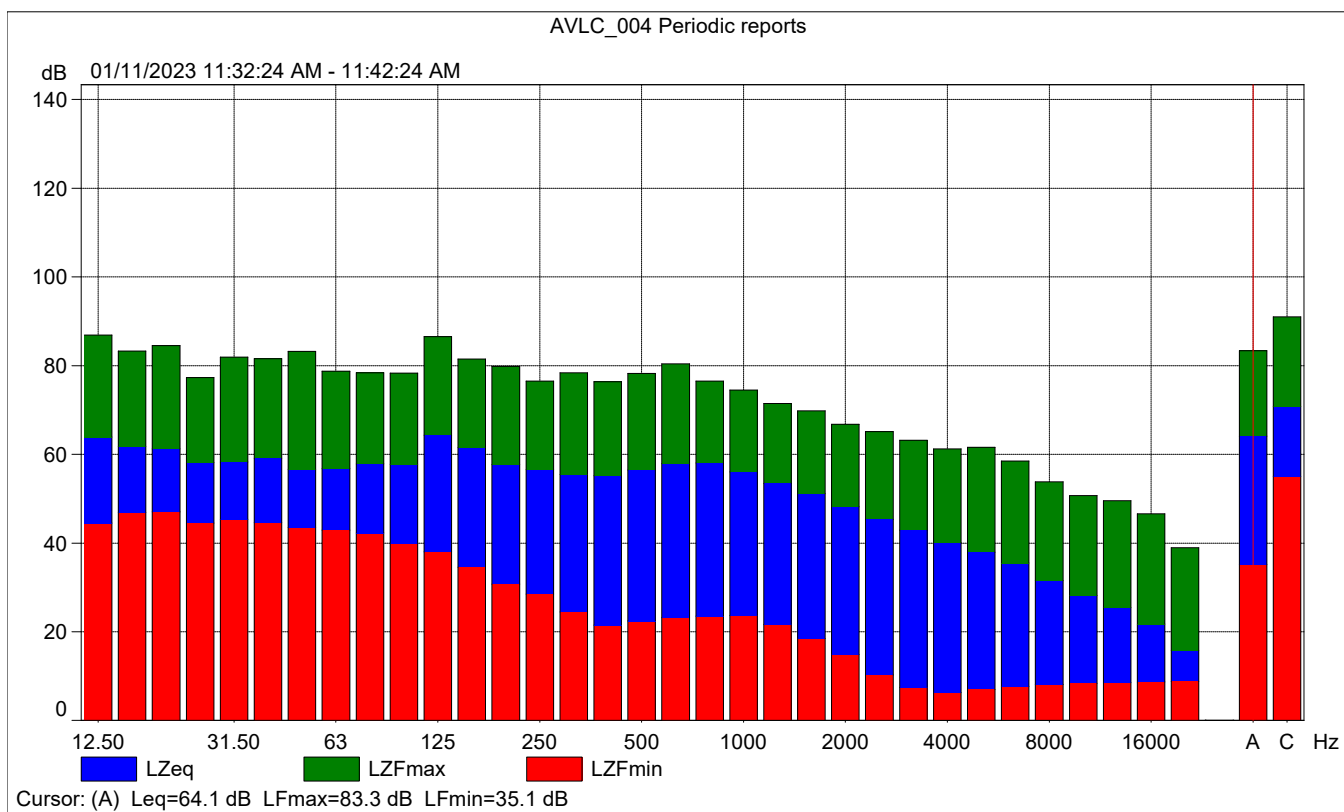
	Start time	Elapsed time	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			43.0	38.4	37.2
Time	11:37:23 AM	0:00:01			
Date	01/11/2023				





## AVLC\_004 Periodic reports

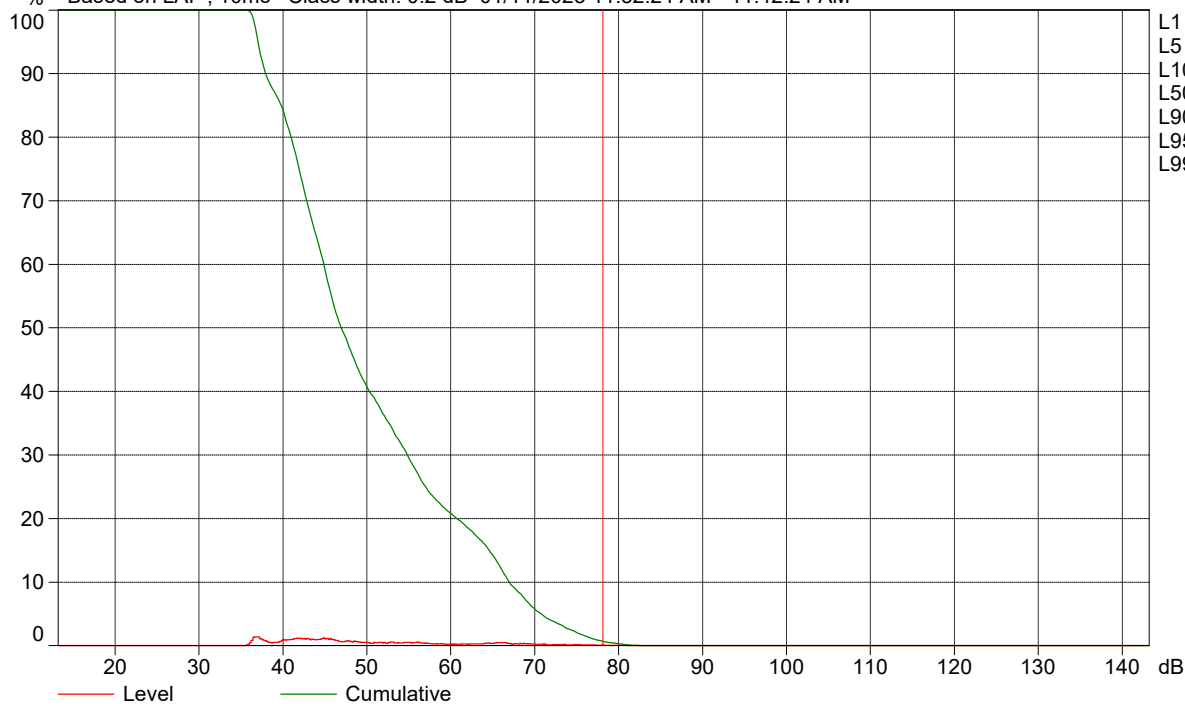
	Start time	Elapsed time	Overload [%]	LAFeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	67.4	83.3	35.1
Time	11:32:24 AM	0:10:00				
Date	01/11/2023					





AVLC\_004 Periodic reports

% Based on LAF, 10ms Class width: 0.2 dB 01/11/2023 11:32:24 AM - 11:42:24 AM



L1 = 77.0 dB  
L5 = 70.6 dB  
L10 = 66.8 dB  
L50 = 46.8 dB  
L90 = 37.8 dB  
L95 = 36.9 dB  
L99 = 36.2 dB

Cursor: [78.0 ; 78.2] dB Level: 0.1% Cumulative: 0.7%

<b>Site Number:</b> NM-5			
<b>Recorded By:</b> Darshan Shivaiah, Winnie Woo			
<b>Job Number:</b> 192691			
<b>Date:</b> 11/01/23			
<b>Time:</b> 11:53 a.m.			
<b>Location:</b> Along the sidewalk of 20th Street West, near Liesure Lake Mobile Estates			
<b>Source of Ambient Noise:</b> Traffic noise along 20th Street West and SR-14			
<b>Source of Peak Noise:</b> Trucks passing by			
Noise Data			
Leq (dB)	Lmax(dB)	Lmin (dB)	Peak (dB)
58.8	42.9	76.5	92.2

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	3011133	03/10/2022	
	Microphone	Brüel & Kjær	4189	3086765	03/10/2022	
	Preamp	Brüel & Kjær	ZC 0032	25380	03/10/2022	
	Calibrator	Brüel & Kjær	4231	2545667	03/10/2022	
Weather Data						
Est.	Duration: 10 minutes			Sky: Sunny		
	Note: dBA Offset = 0.02			Sensor Height (ft): 5 ft		
	Wind Ave Speed (mph / m/s)		Temperature (degrees Fahrenheit)		Barometer Pressure (inches)	
	3 mph		66		39	

**Photo of Measurement Location**





2250

Instrument:		2250
Application:		BZ7225 Version 4.7.6
Start Time:		01/11/2023 11:53:21
End Time:		01/11/2023 12:03:21
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.00

	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Free-field

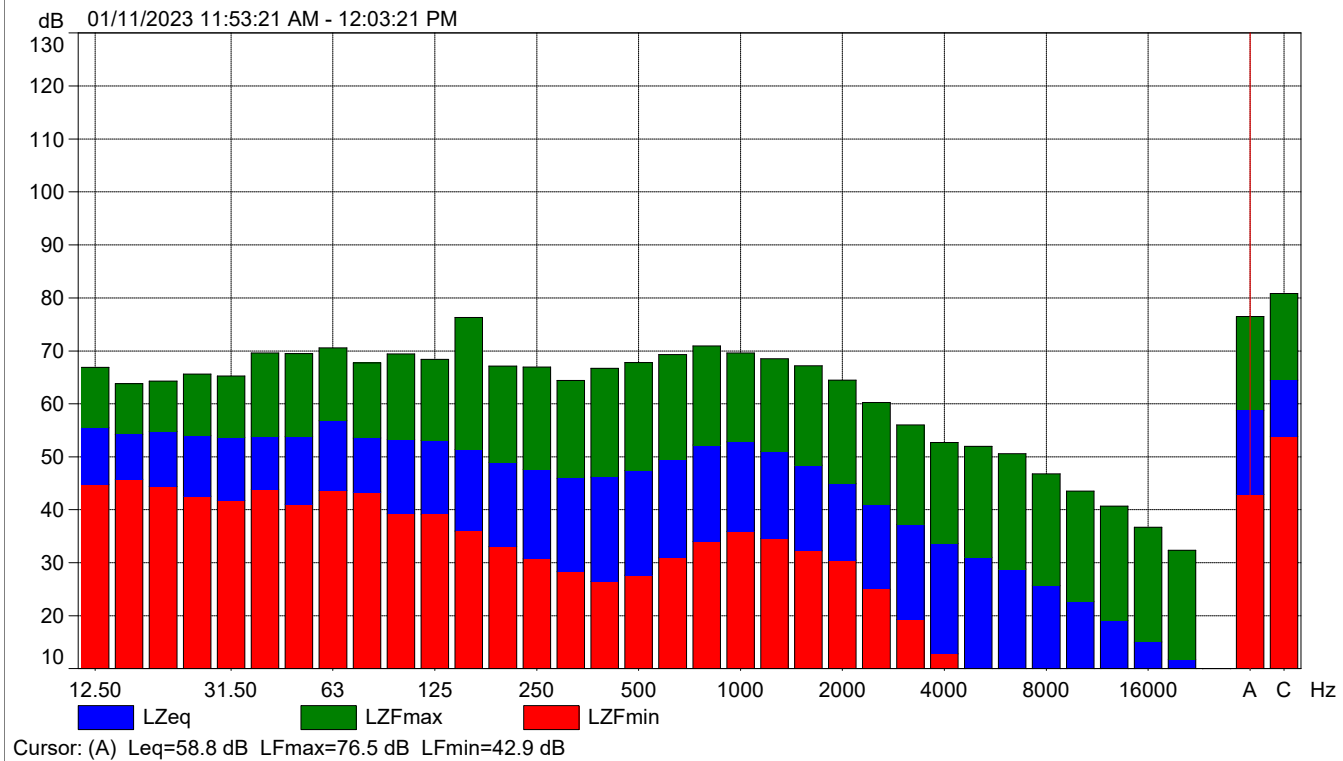
Calibration Time:		01/11/2023 10:12:27
Calibration Type:		External reference
Sensitivity:		44.2486479878426 mV/Pa

AVLC\_005

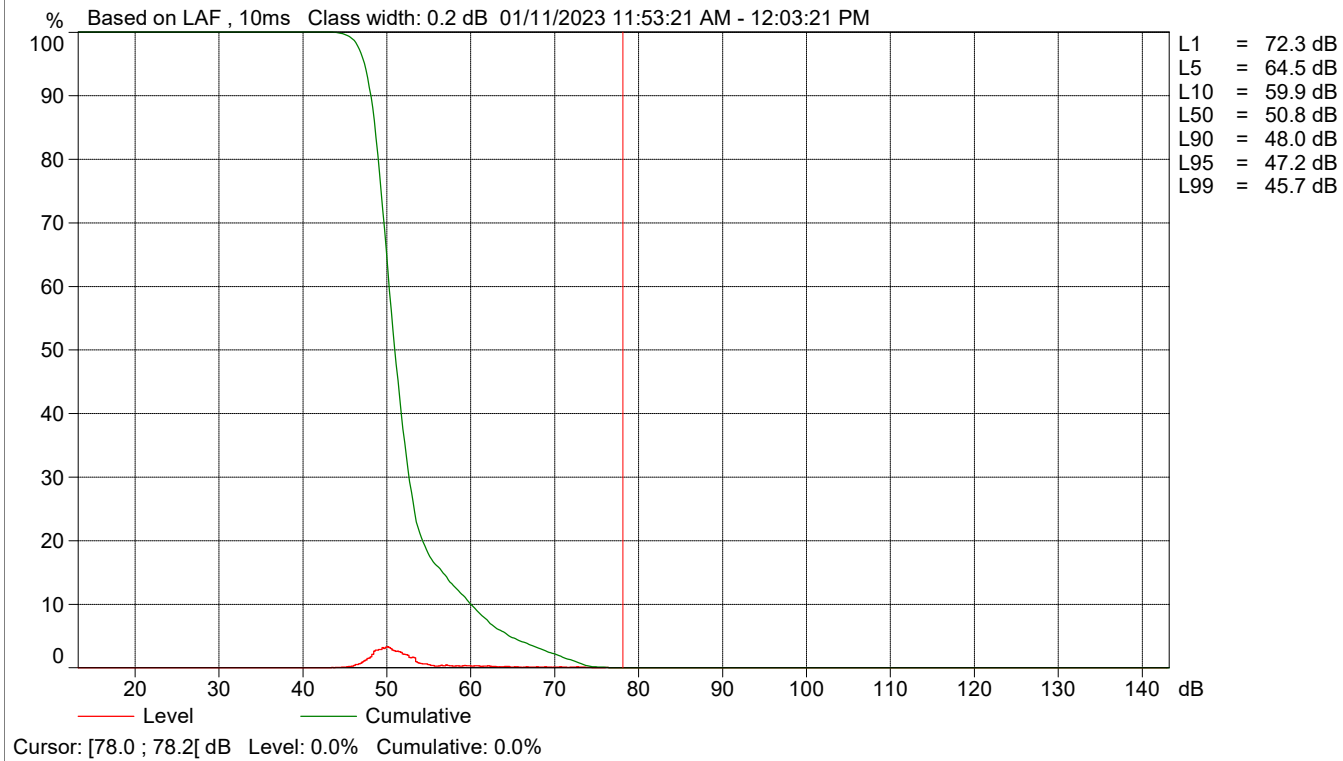
	Start time	End time	Elapsed time	Overload [%]	L <sub>Aeq</sub> [dB]	L <sub>AFmax</sub> [dB]	L <sub>AFmin</sub> [dB]
Value				0.00	58.8	76.5	42.9
Time	11:53:21 AM	12:03:21 PM	0:10:00				
Date	01/11/2023	01/11/2023					

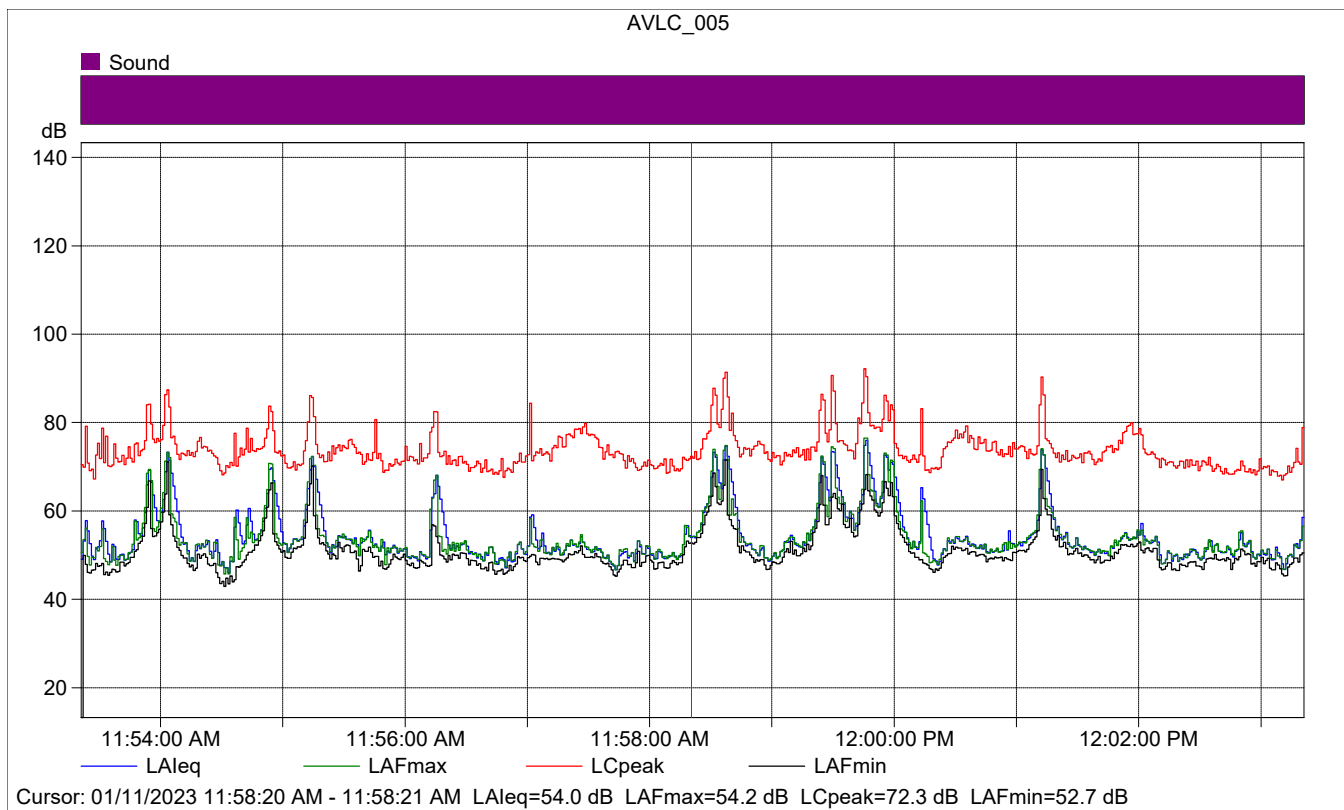


AVLC\_005



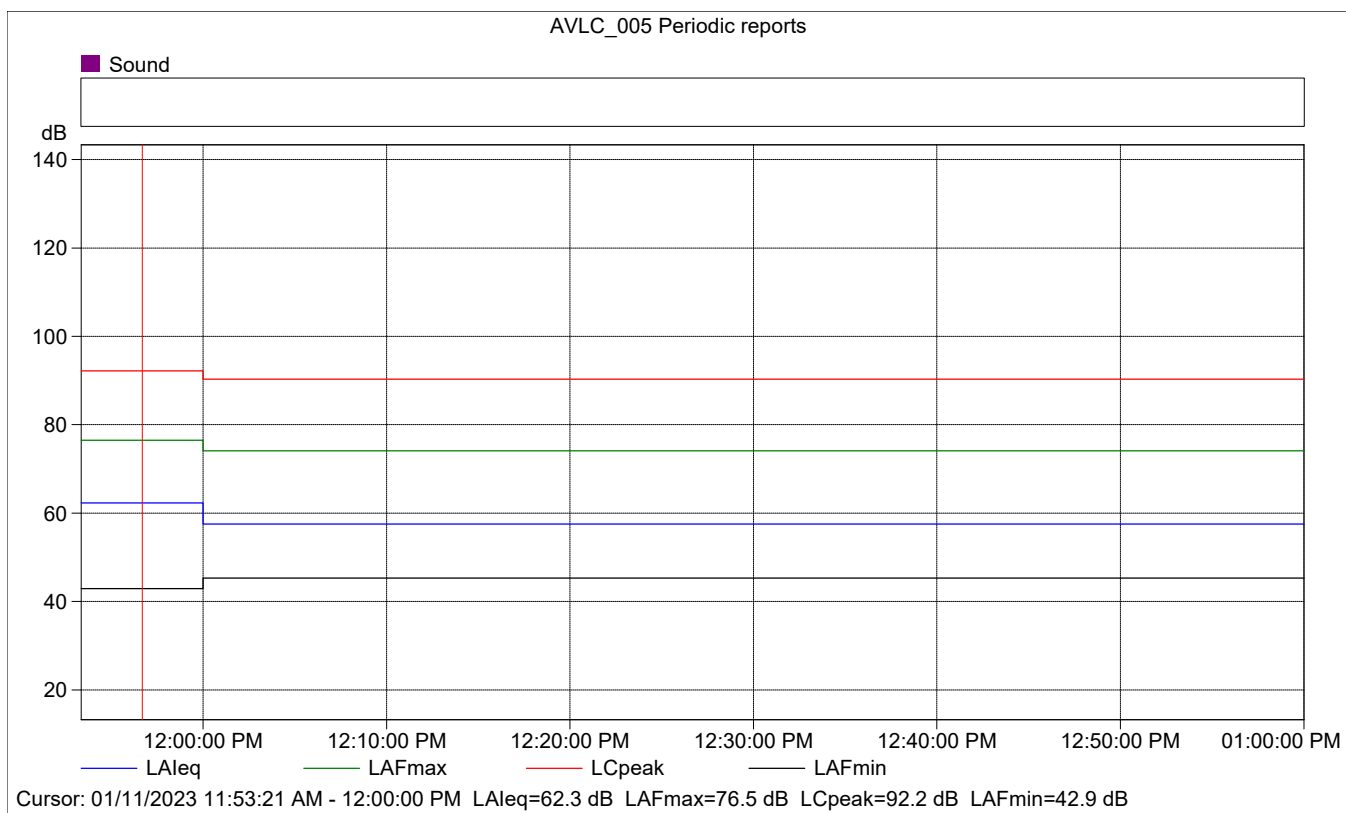
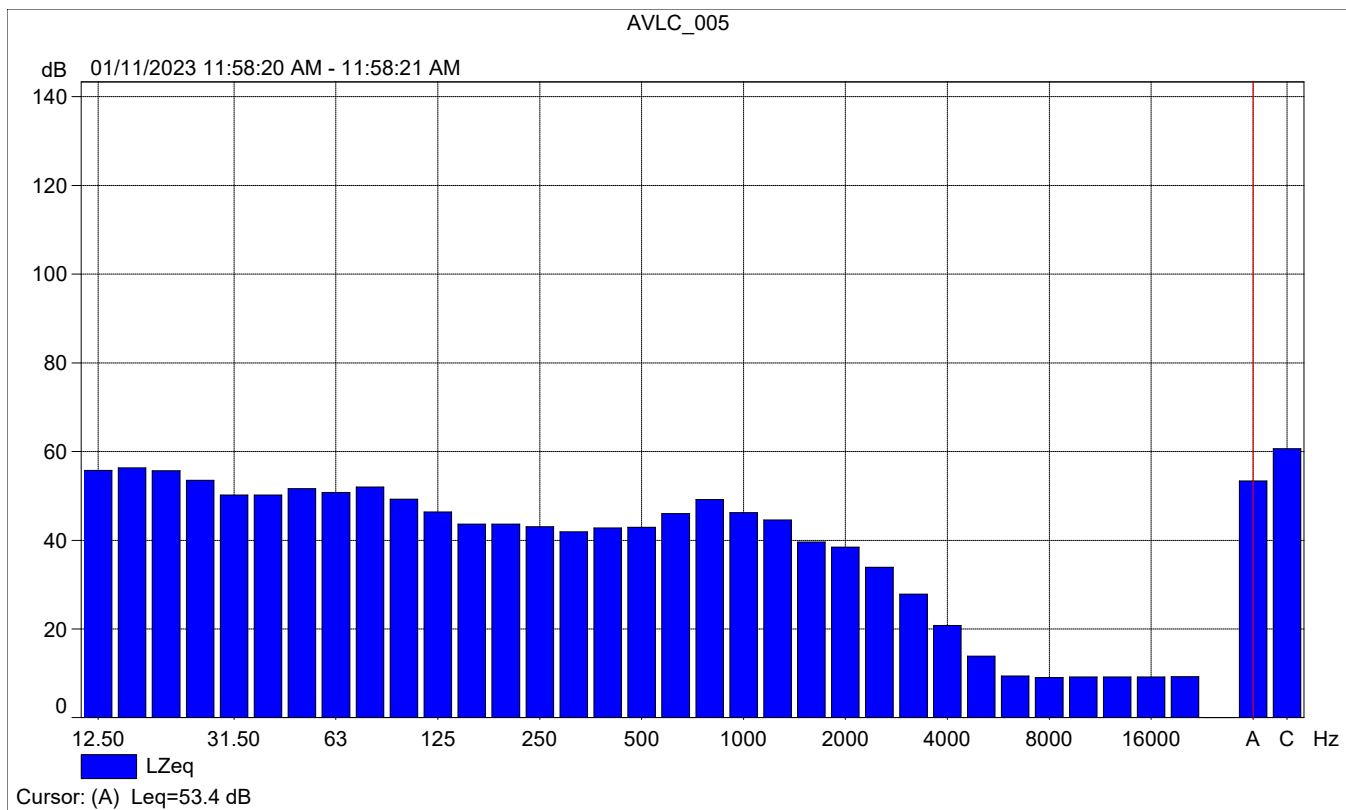
AVLC\_005





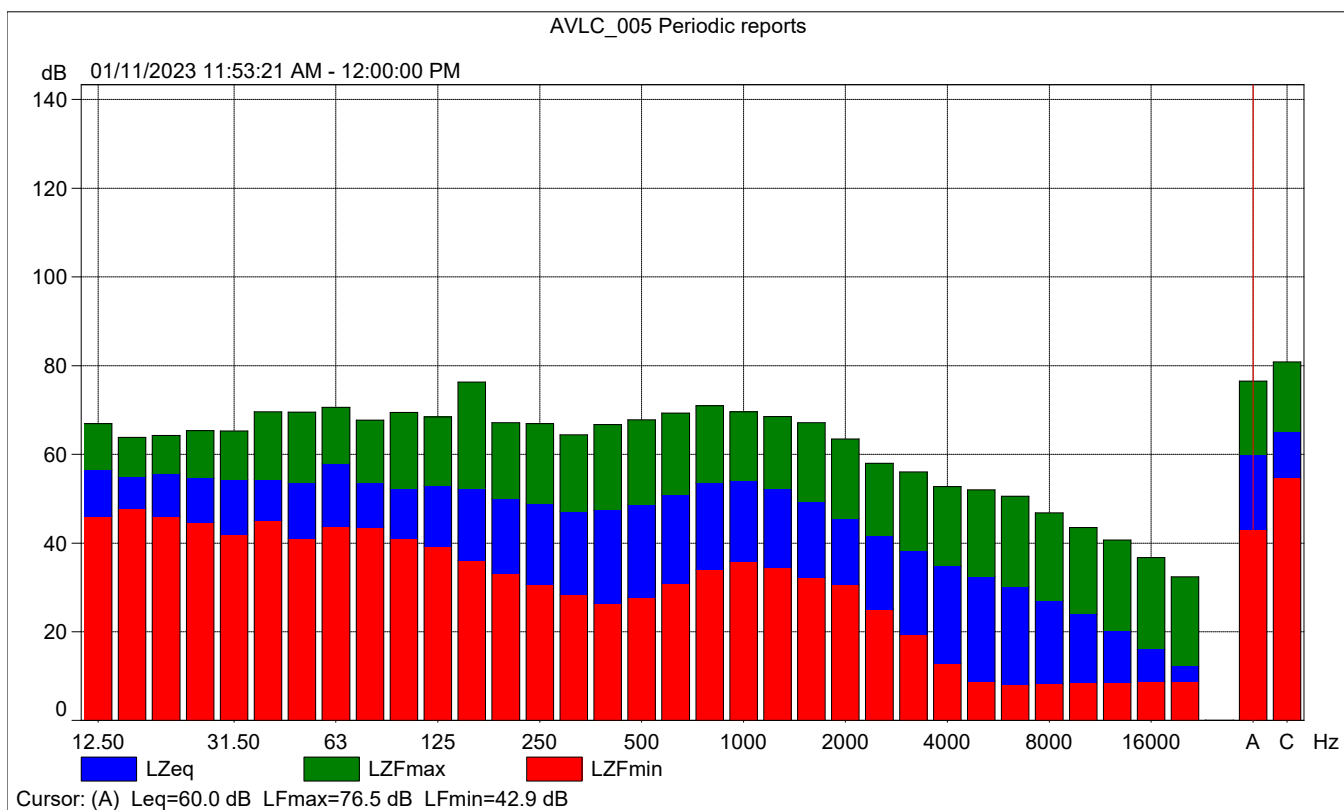
### AVLC\_005

	Start time	Elapsed time	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			54.0	54.2	52.7
Time	11:58:20 AM	0:00:01			
Date	01/11/2023				



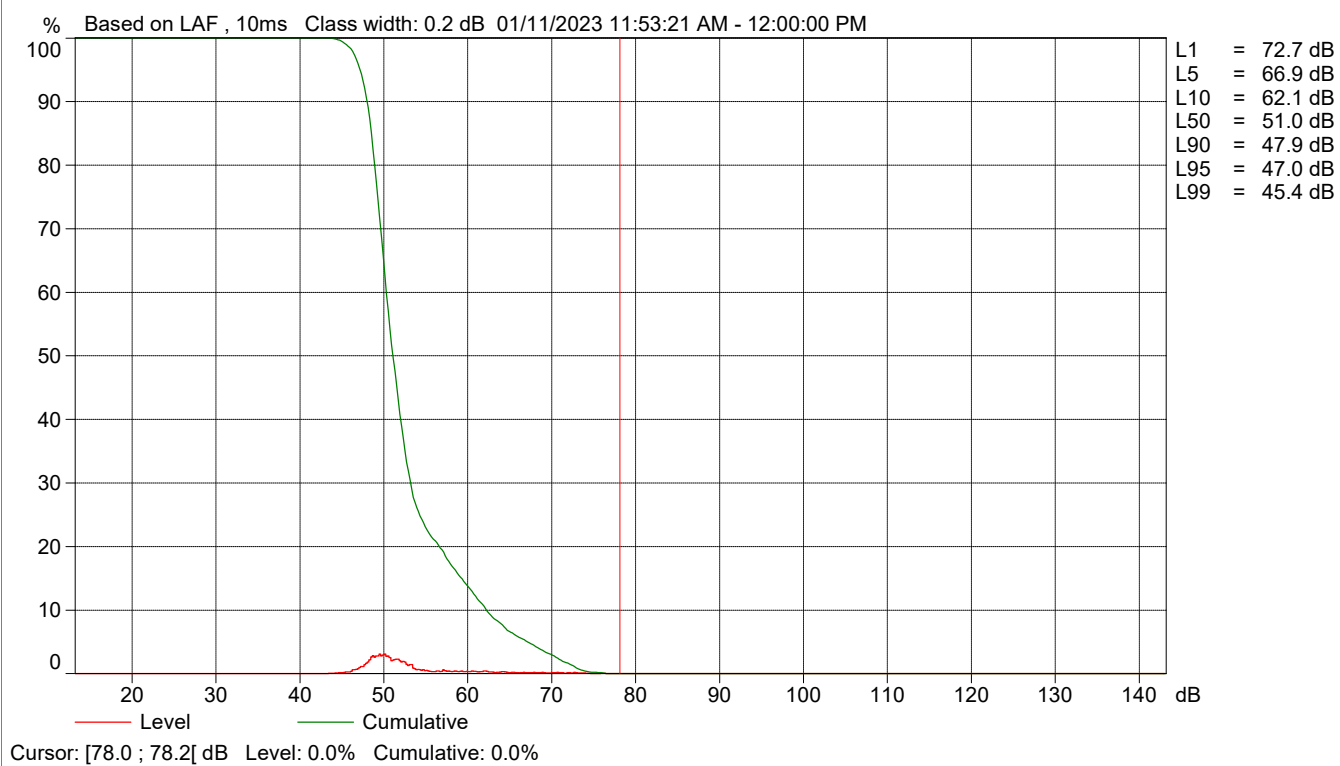
# AVLC\_005 Periodic reports

	Start time	Elapsed time	Overload [%]	LAFeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	62.3	76.5	42.9
Time	11:53:21 AM	0:06:39				
Date	01/11/2023					





AVLC\_005 Periodic reports



Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 2/28/2023

Case Description: AVLC West

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Grading	Residential	80	80	80

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		3200	0
Excavator	No	40		80.7	3200	0
Excavator	No	40		80.7	3200	0
Tractor	No	40	84		3200	0
Tractor	No	40	84		3200	0
Scraper	No	40		83.6	3200	0
Scraper	No	40		83.6	3200	0
Dozer	No	40		81.7	3200	0

Results

Calculated (dBA)

Equipment	*Lmax	Leq
Grader	48.9	44.9
Excavator	44.6	40.6
Excavator	44.6	40.6
Tractor	47.9	43.9
Tractor	47.9	43.9
Scraper	47.5	43.5
Scraper	47.5	43.5
Dozer	45.5	41.6
Total	48.9	52.1

\*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date 2/28/2023

Case Descr AVL West

---- Receptor #1 ----

Descriptor Land Use	Baselines (dBA)		
	Daytime	Evening	Night
Building Cc Residential	80	80	80

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Pickup Truck	No	40		75	3200	0
Pickup Truck	No	40		75	3200	0
Pickup Truck	No	40		75	3200	0
Generator	No	50		80.6	3200	0
Crane	No	16		80.6	3200	0
Welder / Torch	No	40		74	3200	0
Tractor	No	40	84		3200	0
Tractor	No	40	84		3200	0
Tractor	No	40	84		3200	0

Results

Equipment	Calculated (dBA)	
	*Lmax	Leq
Pickup Truck	38.9	34.9
Pickup Truck	38.9	34.9
Pickup Truck	38.9	34.9
Generator	44.5	41.5
Crane	44.4	36.5
Welder / Torch	37.9	33.9
Tractor	47.9	43.9
Tractor	47.9	43.9
Tractor	47.9	43.9
Total	47.9	50.2

\*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date 2/28/2023

Case Descr AVL West

---- Receptor #1 ----

		Baselines (dBA)		
Descriptor	Land Use	Daytime	Evening	Night
Paving	Residential	80	80	80

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	3200	0
Paver	No	50		77.2	3200	0
Paver	No	50		77.2	3200	0
Paver	No	50		77.2	3200	0
Roller	No	20		80	3200	0
Roller	No	20		80	3200	0

Results

Calculated (dBA)		
Equipment	*Lmax	Leq
Paver	41.1	38.1
Paver	41.1	38.1
Paver	41.1	38.1
Paver	41.1	38.1
Roller	43.9	36.9
Roller	43.9	36.9
Total	43.9	45.5

\*Calculated Lmax is the Loudest value.



Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 2/28/2023

Case Description: AVL West

---- Receptor #1 ----

Descriptor Land Use	Baselines (dBA)		
	Daytime	Evening	Night
Architectur Residential	80	80	80

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	3200	0

Results

Equipment	Calculated (dBA)	
	*Lmax	Leq
Compressor (air)	41.5	37.6
Total	41.5	37.6

\*Calculated Lmax is the Loudest value.