

Memorandum

To:	Jenny Lines, P.Eng., McElhanney	June 12, 2026
From:	Gary Mak, P.Eng.	Page 1 of 11
cc:	Daniel Mayell, P.Eng., Binnie	File: 3134-24A-R0
Re:	Highway 1 Chase West to Chase Creek Bridge Post-Construction Noise Measurements	

On November 19-21, 2025, BKL performed 48-hour post-construction noise monitoring in Chase, BC, for the Highway 1 Chase West to Chase Creek Bridge project. Noise measurements were repeated at

- 161 Shuswap Avenue (previously measured in 2023 during Project construction);
- 911 Paquette Road (previously measured in 2016 pre-Project); and,
- 221 Brooke Drive (previously measured in 2016 pre-Project).

This purpose of the monitoring was to quantify post-construction traffic noise levels to enable comparison with previously measured levels.

Efforts were made to mount microphones at the same locations as those used previously. The measurement was conducted using a 01dB DUO sound analyzers meeting Type 1 specifications in ANSI S1.4:1983. The sound level meters were field calibrated before each monitoring period using Type 1 calibrators. The prevailing weather conditions were acceptable for the noise measurement. Light showers were present for short periods but the weather was overall overcast with light or calm winds during the measurement period.

Noise monitoring results, noting the measurement dates and durations, are provided in the attached site data sheets. All of the sound level history graphs were reviewed and no abnormal noise events unrelated to traffic noise were identified.

Table 1 (overleaf) summarizes the day-night level (L_{dn}) A-weighted decibel (dBA) results along with the previous measurement results. As noted below, these results do not necessarily represent the noise exposures of the residences. The results do not include any adjustments to estimate noise exposures at dwellings or to account for differences in traffic and environmental conditions.

At 161 Shuswap Avenue, the measured post-construction noise level shows a 3 dBA decrease compared to the noise level measured in 2023 during construction. As shown in the site description photos on Page 3, the measurement location is at approximately the same setback to the highway as the house of the property.

At 911 Paquette Road, the measured post-construction noise level shows a 1 dBA increase compared to the pre-Project noise level measured in 2016. As shown in the site description photos on Page 6, the measurement is near the southeast edge of the property so it is much closer setback to the highway than the house of the property (i.e., approximately 16 metres from the highway centreline versus 45 metres).

At 221 Brooke Drive, the measured post-construction noise level shows a 6 dBA decrease compared to the pre-Project noise level measured in 2016. As shown in the site description photos on Page 9, the measurement is near the southeast edge of the property so it is much closer setback to the highway than the house of the property (i.e., approximately 35 metres from the highway centreline versus 52 metres).

Table 1: Post-Construction Noise Measurement Results

LOCATION			DAY-NIGHT NOISE LEVEL, <i>L_{dn}</i> (dBA)		
Location	Address	Microphone Location	Measured Previously	Measured Post-Construction	Difference
1	161 Shuswap Avenue	Mounted on building rooftop 5.2 m above ground 40 m from Hwy 1 centreline	71 (Dec 2023)	68 (Nov 2025)	-3
2	911 Pacquette Road	Mounted in a tree 3.0 m above ground 16 m from Hwy 1 centreline	77 (Jun 2016)	78 (Nov 2025)	+1
3	221 Brooke Drive	Mounted on south fence 3.0 m above ground 35 m from Hwy 1 centreline	64 (Jun 2016)	58 (Nov 2025)	-6

Enclosure: Measurement Site Descriptions

Location 1 - #15 - 161 Shuswap Ave

Project ID: 3134-24A

Start Date: November 19, 2025

Start Time: 09:00

Duration: 48 hours

Address:

#15 - 161 Shuswap Ave, Chase, BC

Instrument:

DUO 01dB

Serial No:

12788

Measured by:

FG

Location Description

The microphone was mounted on the roof of the mobile home trailer at a height of approximately 5.2 m above the ground. The measurement position was located 1.8 m from the south façade and 13.8 m south of a metal fence, which is situated approximately 12 m north of the roadside barrier.

Ambient Noise Description

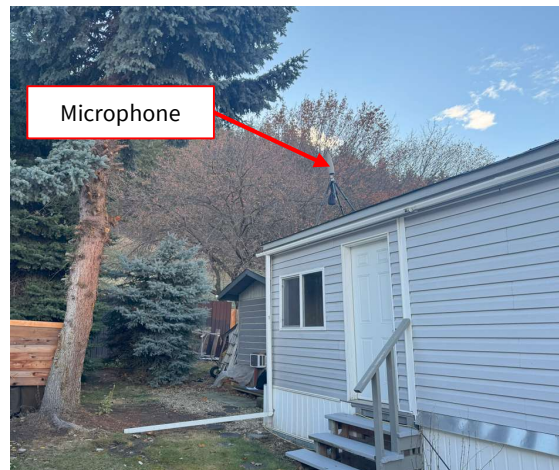
The dominant noise source was road traffic on Highway 1.

Environmental Conditions

The weather was partially or fully overcast throughout the measurement period, with brief intervals of light rain.

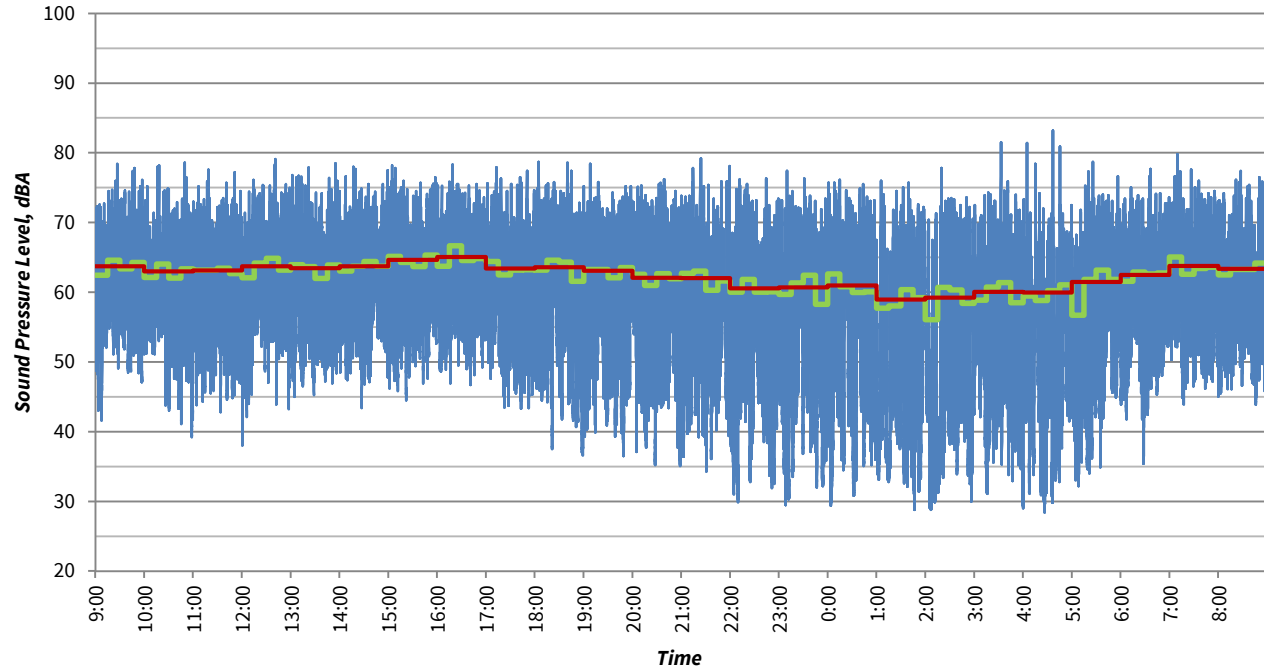
Purpose of Monitoring Location

This monitoring location is representative of the current environmental noise condition by Trans Canada Highway W



Location 1 - #15 - 161 Shuswap Ave - Day 1

The graph below shows the measured, and calculated time histories beginning on November 19, 2025



Hourly Interval Report starting at November 19, 2025
All Sound Pressure Levels presented in dBA

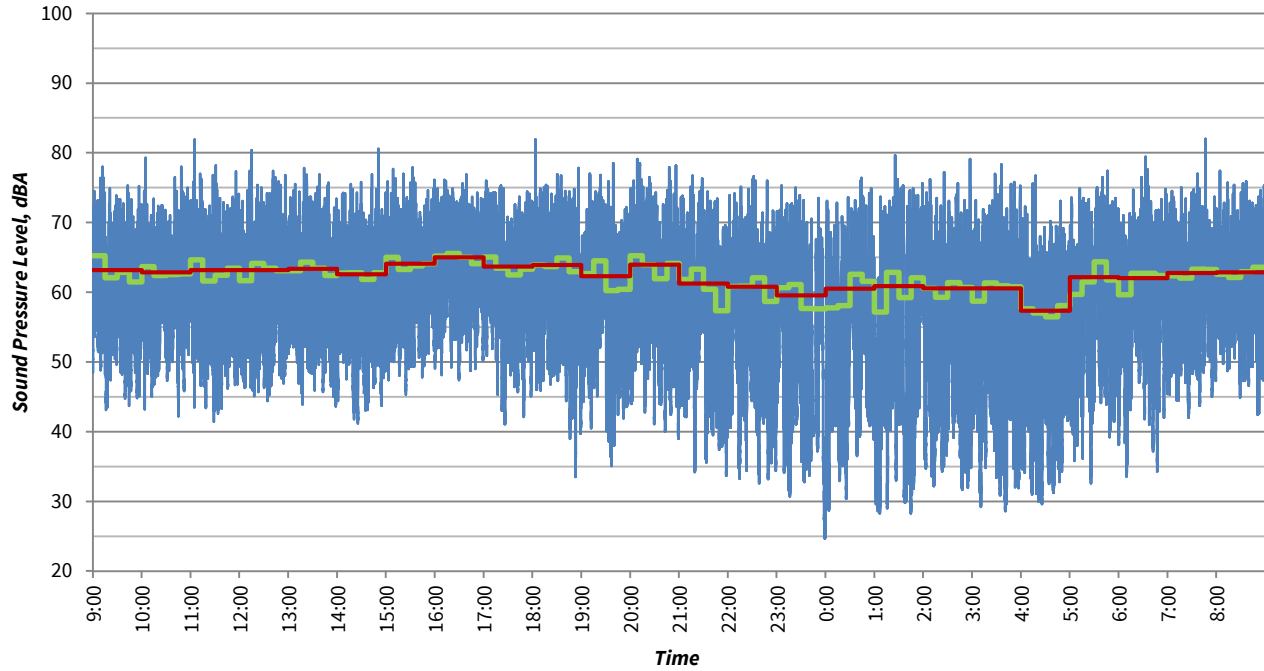
L_{dn} 68
L_d 64
L_n 61

— 1 second measured L_{eq}
— 15 minute calculated L_{eq}
— 1 hour calculated L_{eq}

Date	Time	Duration	L_{eq}	L_{max}	L_{min}	L_1	L_5	L_{10}	L_{50}	L_{90}	L_{99}
Total	-	24:00:00	63	83	28	73	69	67	57	43	33
Nov 19	9:00:00	1:00:00	64	78	42	73	70	68	60	53	47
Nov 19	10:00:00	1:00:00	63	79	39	73	69	67	59	50	42
Nov 19	11:00:00	1:00:00	63	78	43	73	69	67	59	51	45
Nov 19	12:00:00	1:00:00	64	79	38	74	70	68	59	52	44
Nov 19	13:00:00	1:00:00	63	79	45	74	69	67	59	51	48
Nov 19	14:00:00	1:00:00	64	78	43	73	70	67	60	53	48
Nov 19	15:00:00	1:00:00	65	78	45	74	71	69	60	53	48
Nov 19	16:00:00	1:00:00	65	78	47	74	71	69	61	54	49
Nov 19	17:00:00	1:00:00	63	78	43	73	70	68	59	50	45
Nov 19	18:00:00	1:00:00	64	79	37	73	70	68	58	47	40
Nov 19	19:00:00	1:00:00	63	78	37	73	70	68	57	45	40
Nov 19	20:00:00	1:00:00	62	76	35	72	69	67	56	44	38
Nov 19	21:00:00	1:00:00	62	79	34	73	69	66	55	43	37
Nov 19	22:00:00	1:00:00	61	76	30	72	68	65	51	39	33
Nov 19	23:00:00	1:00:00	61	77	30	72	68	65	52	38	31
Nov 20	0:00:00	1:00:00	61	76	29	72	68	65	50	37	31
Nov 20	1:00:00	1:00:00	59	76	29	71	66	63	46	35	32
Nov 20	2:00:00	1:00:00	59	78	29	71	67	63	45	33	30
Nov 20	3:00:00	1:00:00	60	82	29	72	67	63	51	39	32
Nov 20	4:00:00	1:00:00	60	83	28	71	66	62	48	35	30
Nov 20	5:00:00	1:00:00	61	79	32	72	68	66	53	41	35
Nov 20	6:00:00	1:00:00	63	78	35	72	69	67	58	48	42
Nov 20	7:00:00	1:00:00	64	80	44	73	70	68	60	51	47
Nov 20	8:00:00	1:00:00	63	77	44	74	70	68	59	50	46

Location 1 - #15 - 161 Shuswap Ave - Day 2

The graph below shows the measured, and calculated time histories beginning on November 20, 2025



Hourly Interval Report starting at November 20, 2025
All Sound Pressure Levels presented in dBA

L_{dn} | 68
L_d | 63
L_n | 61

— 1 second measured L_{eq}
— 15 minute calculated L_{eq}
— 1 hour calculated L_{eq}

Date	Time	Duration	L_{eq}	L_{max}	L_{min}	L_1	L_5	L_{10}	L_{50}	L_{90}	L_{99}
Total	-	24:00:00	63	82	25	73	69	67	57	43	32
Nov 20	9:00:00	1:00:00	63	78	43	73	69	67	59	51	45
Nov 20	10:00:00	1:00:00	63	79	42	72	68	67	59	52	46
Nov 20	11:00:00	1:00:00	63	82	41	73	69	67	59	51	44
Nov 20	12:00:00	1:00:00	63	80	44	74	69	67	58	50	46
Nov 20	13:00:00	1:00:00	63	78	44	73	70	67	59	51	46
Nov 20	14:00:00	1:00:00	63	81	41	72	69	67	58	49	43
Nov 20	15:00:00	1:00:00	64	78	45	74	70	68	60	53	48
Nov 20	16:00:00	1:00:00	65	77	47	73	71	69	62	55	49
Nov 20	17:00:00	1:00:00	64	76	41	73	70	68	60	52	44
Nov 20	18:00:00	1:00:00	64	82	34	74	71	68	59	50	41
Nov 20	19:00:00	1:00:00	62	79	35	73	69	66	57	46	40
Nov 20	20:00:00	1:00:00	64	79	39	74	70	68	58	49	42
Nov 20	21:00:00	1:00:00	61	77	34	72	68	65	55	42	36
Nov 20	22:00:00	1:00:00	61	77	33	72	67	65	53	40	35
Nov 20	23:00:00	1:00:00	60	75	25	71	67	64	50	37	26
Nov 21	0:00:00	1:00:00	61	76	29	72	67	64	52	39	32
Nov 21	1:00:00	1:00:00	61	80	28	72	68	65	50	32	29
Nov 21	2:00:00	1:00:00	61	79	32	72	68	65	51	37	33
Nov 21	3:00:00	1:00:00	61	78	29	72	68	65	52	36	30
Nov 21	4:00:00	1:00:00	57	77	30	69	64	61	46	35	31
Nov 21	5:00:00	1:00:00	62	77	33	72	69	66	56	44	36
Nov 21	6:00:00	1:00:00	62	79	34	72	68	66	57	46	37
Nov 21	7:00:00	1:00:00	63	82	42	72	69	67	59	50	45
Nov 21	8:00:00	1:00:00	63	77	42	73	69	67	59	52	47

Location 2 - 911 Paquette Road

Project ID: 3134-24A

Start Date: November 19, 2025

Start Time: 10:00

Duration: 48 hours

Address: 911 Paquette Road, Chase, BC

Instrument: DUO 01dB

Serial No: 12783

Measured by: FG

Location Description

The microphone was positioned in the backyard at a height of approximately 3 m above the ground. The monitoring location was situated about 30 m from the south facade of the house, 2.4 m north of the retaining wall, 3.4 m north of the roadside barrier, and 4 m south of the shed.

Ambient Noise Description

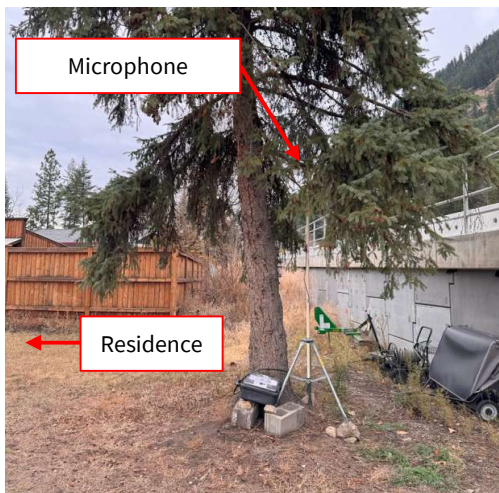
The dominant noise source was road traffic on Highway 1. Intermittent noise from a nearby operating carwash was also observed but did not significantly influence the measurements.

Environmental Conditions

The weather was partially or fully overcast throughout the measurement period, with brief intervals of light rain.

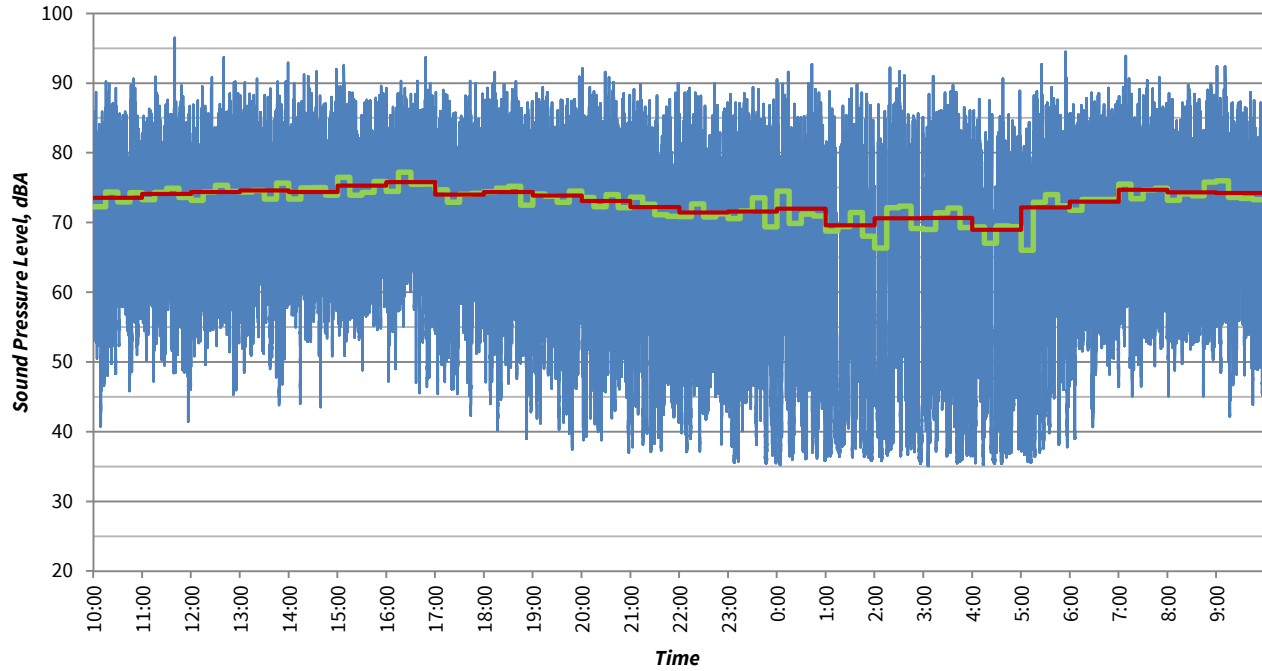
Purpose of Monitoring Location

This monitoring location is representative of the current environmental noise condition by Trans Canada Highway W



Location 2 - 911 Paquette Road - Day 1

The graph below shows the measured, and calculated time histories beginning on November 19, 2025



Hourly Interval Report starting at November 19, 2025
All Sound Pressure Levels presented in dBA

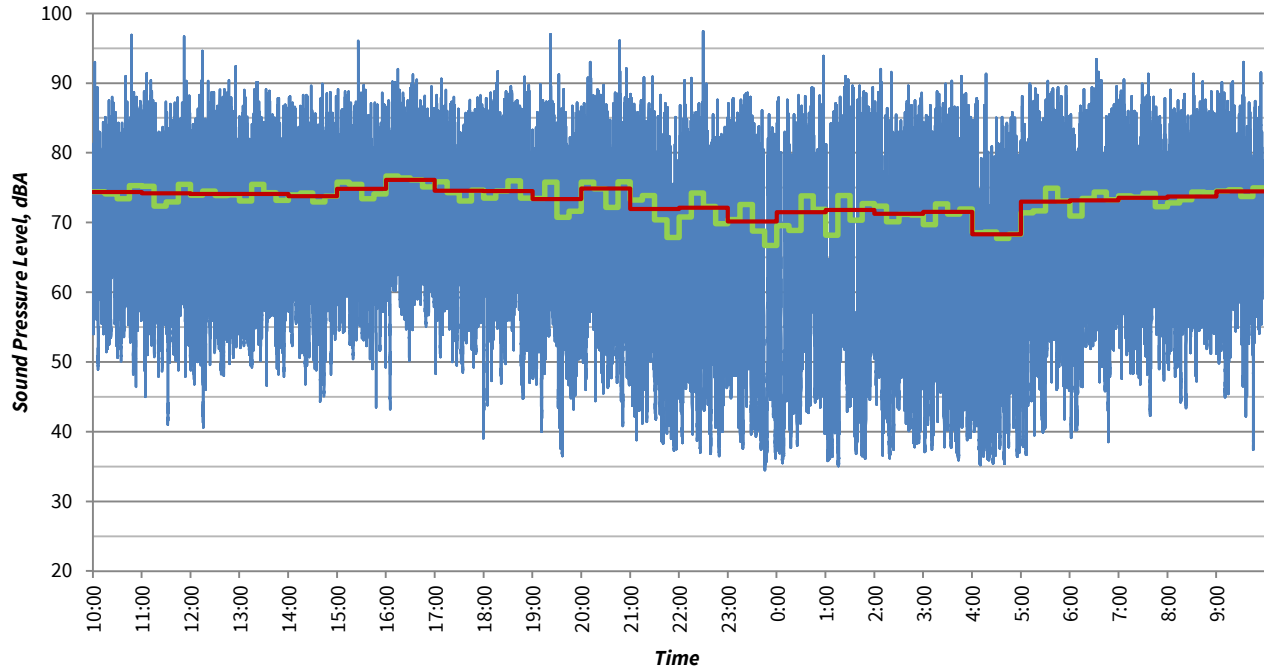
L_{dn} | 78
L_d | 74
L_n | 71

— 1 second measured L_{eq}
— 15 minute calculated L_{eq}
— 1 hour calculated L_{eq}

Date	Time	Duration	L_{eq}	L_{max}	L_{min}	L_1	L_5	L_{10}	L_{50}	L_{90}	L_{99}
Total	-	24:00:00	73	97	35	85	80	77	64	45	36
Nov 19	10:00:00	1:00:00	74	91	41	85	80	77	65	55	47
Nov 19	11:00:00	1:00:00	74	97	41	85	81	78	66	55	48
Nov 19	12:00:00	1:00:00	74	94	45	86	81	78	67	57	50
Nov 19	13:00:00	1:00:00	75	93	44	86	81	78	68	57	48
Nov 19	14:00:00	1:00:00	74	92	44	85	81	78	68	58	48
Nov 19	15:00:00	1:00:00	75	93	49	86	82	79	69	60	54
Nov 19	16:00:00	1:00:00	76	94	46	87	82	80	70	59	48
Nov 19	17:00:00	1:00:00	74	90	42	85	81	78	66	55	47
Nov 19	18:00:00	1:00:00	74	92	39	86	82	78	65	53	42
Nov 19	19:00:00	1:00:00	74	91	37	86	82	77	63	49	40
Nov 19	20:00:00	1:00:00	73	92	37	86	80	75	62	46	39
Nov 19	21:00:00	1:00:00	72	90	37	85	79	75	58	43	38
Nov 19	22:00:00	1:00:00	71	90	37	85	78	73	57	44	38
Nov 19	23:00:00	1:00:00	72	89	35	85	79	74	57	39	36
Nov 20	0:00:00	1:00:00	72	93	35	85	78	73	54	38	36
Nov 20	1:00:00	1:00:00	70	90	36	84	75	69	50	37	36
Nov 20	2:00:00	1:00:00	71	92	35	84	76	71	50	37	36
Nov 20	3:00:00	1:00:00	71	91	35	84	76	71	53	39	36
Nov 20	4:00:00	1:00:00	69	91	35	82	75	70	50	37	36
Nov 20	5:00:00	1:00:00	72	95	36	85	79	74	58	39	36
Nov 20	6:00:00	1:00:00	73	89	39	85	80	77	64	53	44
Nov 20	7:00:00	1:00:00	75	94	45	86	81	79	67	56	48
Nov 20	8:00:00	1:00:00	74	90	45	87	81	78	66	55	48
Nov 20	9:00:00	1:00:00	74	92	42	86	81	78	67	54	46

Location 2 - 911 Paquette Road - Day 2

The graph below shows the measured, and calculated time histories beginning on November 20, 2025



Hourly Interval Report starting at November 20, 2025
All Sound Pressure Levels presented in dBA

L_{dn} | 79
L_d | 74
L_n | 72

— 1 second measured L_{eq}
— 15 minute calculated L_{eq}
— 1 hour calculated L_{eq}

Date	Time	Duration	L_{eq}	L_{max}	L_{min}	L_1	L_5	L_{10}	L_{50}	L_{90}	L_{99}
Total	-	24:00:00	73	97	35	86	80	77	64	47	37
Nov 20	10:00:00	1:00:00	74	97	46	85	81	78	67	57	51
Nov 20	11:00:00	1:00:00	74	97	41	86	81	78	66	56	49
Nov 20	12:00:00	1:00:00	74	95	41	86	80	77	66	54	47
Nov 20	13:00:00	1:00:00	74	90	47	85	81	78	67	56	50
Nov 20	14:00:00	1:00:00	74	90	44	85	81	78	66	55	48
Nov 20	15:00:00	1:00:00	75	96	44	86	81	78	68	58	51
Nov 20	16:00:00	1:00:00	76	92	43	87	83	80	70	61	51
Nov 20	17:00:00	1:00:00	75	91	39	86	81	79	68	57	50
Nov 20	18:00:00	1:00:00	75	92	39	86	81	78	66	54	45
Nov 20	19:00:00	1:00:00	73	97	37	86	80	76	63	49	38
Nov 20	20:00:00	1:00:00	75	96	41	87	82	78	64	51	45
Nov 20	21:00:00	1:00:00	72	91	37	85	79	74	59	44	39
Nov 20	22:00:00	1:00:00	72	97	37	85	79	74	58	43	38
Nov 20	23:00:00	1:00:00	70	89	35	84	76	71	53	40	36
Nov 21	0:00:00	1:00:00	72	94	36	85	78	73	54	43	37
Nov 21	1:00:00	1:00:00	72	91	35	86	78	72	54	38	36
Nov 21	2:00:00	1:00:00	71	92	36	85	77	72	54	42	37
Nov 21	3:00:00	1:00:00	72	91	36	85	78	73	55	41	37
Nov 21	4:00:00	1:00:00	68	91	35	81	74	69	51	38	36
Nov 21	5:00:00	1:00:00	73	90	37	86	80	75	61	47	39
Nov 21	6:00:00	1:00:00	73	93	39	85	80	76	62	50	41
Nov 21	7:00:00	1:00:00	74	91	42	85	80	77	66	54	48
Nov 21	8:00:00	1:00:00	74	91	43	86	80	77	67	55	46
Nov 21	9:00:00	1:00:00	75	93	37	86	81	78	67	54	43

Location 3 - 221 Brooke Drive

Project ID:	3134-24A	Address:	221 Brooke Drive, Chase, BC
Start Date:	November 19, 2025	Instrument:	DUO 01dB
Start Time:	11:00	Serial No:	12727
Duration:	48 hours	Measured by:	FG

Location Description

The microphone was located in the backyard at a height of approximately 3 m above the ground. The measurement position was situated about 19 m east of the southeast façade of the house, 2.5 m south of the northeast property line, and 5.8 m west of the block retaining wall.

Ambient Noise Description

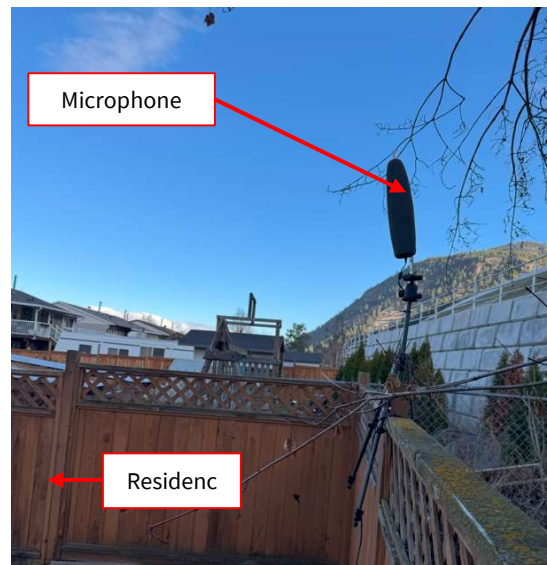
The dominant noise source was road traffic on Highway 1.

Environmental Conditions

The weather was partially or fully overcast throughout the measurement period, with brief intervals of light rain.

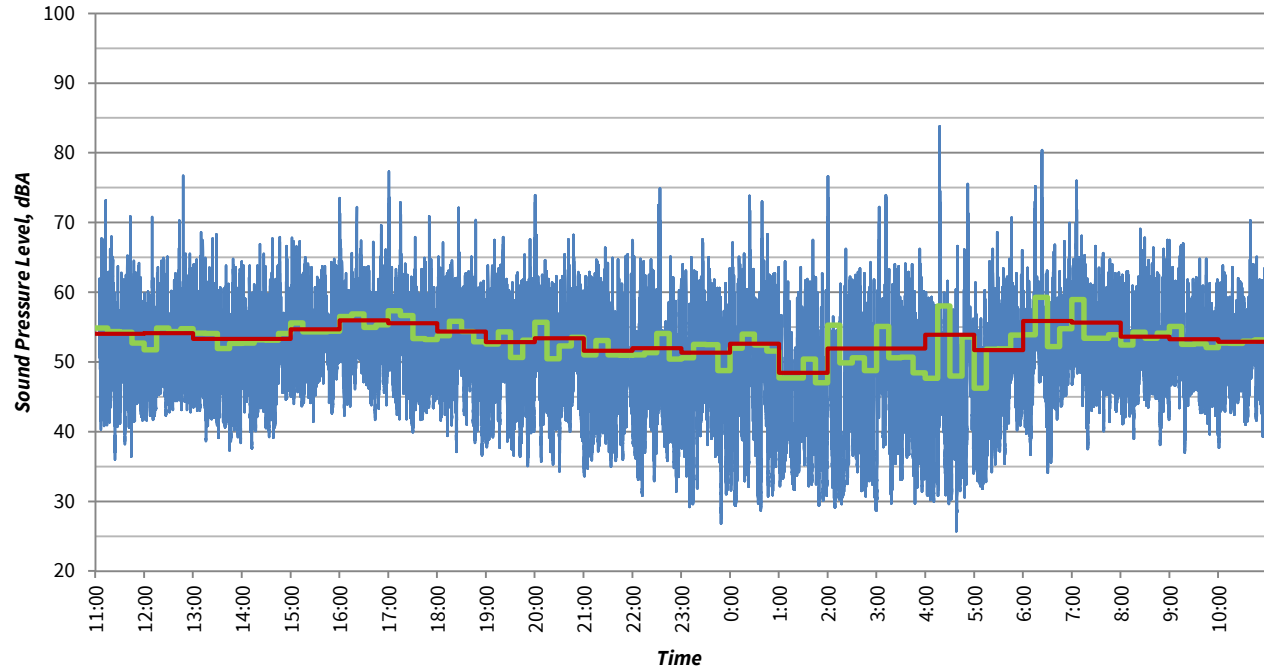
Purpose of Monitoring Location

This monitoring location is representative of the current environmental noise condition by Trans Canada Highway W



Location 3 - 221 Brooke Drive - Day 1

The graph below shows the measured, and calculated time histories beginning on November 19, 2025



Hourly Interval Report starting at November 19, 2025
All Sound Pressure Levels presented in dBA

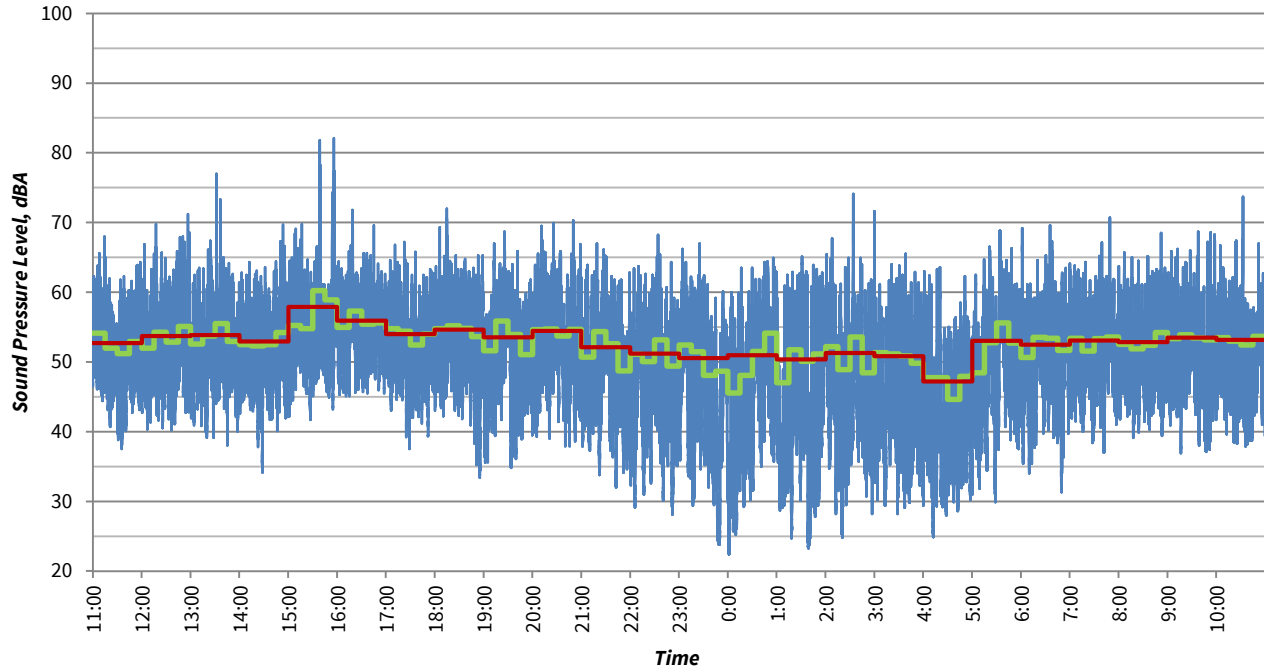
L_{dn} 59
L_d 54
L_n 53

— 1 second measured L_{eq}
— 15 minute calculated L_{eq}
— 1 hour calculated L_{eq}

Date	Time	Duration	L_{eq}	L_{max}	L_{min}	L_1	L_5	L_{10}	L_{50}	L_{90}	L_{99}
Total	-	24:00:00	54	84	26	63	59	56	49	39	31
Nov 19	11:00:00	1:00:00	54	73	36	63	60	57	51	44	39
Nov 19	12:00:00	1:00:00	54	77	42	64	59	57	50	45	42
Nov 19	13:00:00	1:00:00	53	69	37	63	59	57	49	43	39
Nov 19	14:00:00	1:00:00	53	68	38	62	59	57	51	44	40
Nov 19	15:00:00	1:00:00	55	68	41	64	60	58	52	47	44
Nov 19	16:00:00	1:00:00	56	74	42	66	61	59	53	48	44
Nov 19	17:00:00	1:00:00	56	77	40	66	59	57	51	46	42
Nov 19	18:00:00	1:00:00	54	72	37	63	60	58	51	44	39
Nov 19	19:00:00	1:00:00	53	68	35	63	59	57	49	41	37
Nov 19	20:00:00	1:00:00	53	74	34	63	59	57	49	42	37
Nov 19	21:00:00	1:00:00	52	66	34	62	58	55	47	39	36
Nov 19	22:00:00	1:00:00	52	75	31	63	57	54	45	37	32
Nov 19	23:00:00	1:00:00	51	68	27	62	57	55	47	35	29
Nov 20	0:00:00	1:00:00	53	74	29	63	58	56	45	33	30
Nov 20	1:00:00	1:00:00	48	68	29	60	54	52	42	34	30
Nov 20	2:00:00	1:00:00	52	77	29	62	56	54	43	32	30
Nov 20	3:00:00	1:00:00	52	74	29	62	57	54	46	37	30
Nov 20	4:00:00	1:00:00	54	84	26	63	55	53	43	33	29
Nov 20	5:00:00	1:00:00	52	71	32	62	58	55	47	37	33
Nov 20	6:00:00	1:00:00	56	80	34	67	59	57	51	44	37
Nov 20	7:00:00	1:00:00	56	76	38	66	60	58	52	46	41
Nov 20	8:00:00	1:00:00	54	69	38	63	60	57	50	45	41
Nov 20	9:00:00	1:00:00	53	68	37	63	58	56	51	45	40
Nov 20	10:00:00	1:00:00	53	70	38	62	58	56	50	45	41

Location 3 - 221 Brooke Drive - Day 2

The graph below shows the measured, and calculated time histories beginning on November 20, 2025



Hourly Interval Report starting at November 20, 2025
All Sound Pressure Levels presented in dBA

L_{dn} | 58
L_d | 54
L_n | 51

— 1 second measured L_{eq}
— 15 minute calculated L_{eq}
— 1 hour calculated L_{eq}

Date	Time	Duration	L_{eq}	L_{max}	L_{min}	L_1	L_5	L_{10}	L_{50}	L_{90}	L_{99}
Total	-	24:00:00	53	82	22	63	59	57	49	39	29
Nov 20	11:00:00	1:00:00	53	68	38	62	58	56	50	45	40
Nov 20	12:00:00	1:00:00	54	71	40	64	59	57	51	45	42
Nov 20	13:00:00	1:00:00	54	77	38	62	59	57	50	45	40
Nov 20	14:00:00	1:00:00	53	70	34	62	59	56	50	45	39
Nov 20	15:00:00	1:00:00	58	82	42	69	61	58	52	47	44
Nov 20	16:00:00	1:00:00	56	72	45	63	61	59	54	49	46
Nov 20	17:00:00	1:00:00	54	67	38	62	59	58	52	46	41
Nov 20	18:00:00	1:00:00	55	72	33	64	60	58	51	45	37
Nov 20	19:00:00	1:00:00	54	69	35	63	60	58	49	42	36
Nov 20	20:00:00	1:00:00	54	70	38	64	60	58	51	44	40
Nov 20	21:00:00	1:00:00	52	67	32	62	59	56	47	40	34
Nov 20	22:00:00	1:00:00	51	68	28	62	57	55	46	36	30
Nov 20	23:00:00	1:00:00	51	67	24	61	56	54	45	33	24
Nov 21	0:00:00	1:00:00	51	65	22	62	58	55	44	31	24
Nov 21	1:00:00	1:00:00	50	65	23	61	57	55	43	31	24
Nov 21	2:00:00	1:00:00	51	74	25	61	57	55	45	34	27
Nov 21	3:00:00	1:00:00	51	72	28	61	57	54	45	34	30
Nov 21	4:00:00	1:00:00	47	64	25	59	53	51	40	31	26
Nov 21	5:00:00	1:00:00	53	69	30	63	59	57	49	39	33
Nov 21	6:00:00	1:00:00	52	70	31	62	57	56	49	41	35
Nov 21	7:00:00	1:00:00	53	71	37	62	58	57	50	44	39
Nov 21	8:00:00	1:00:00	53	69	39	62	58	56	50	44	41
Nov 21	9:00:00	1:00:00	54	69	37	63	59	57	50	44	39
Nov 21	10:00:00	1:00:00	53	74	38	63	58	56	50	43	39