Environmental Noise Feasibility Assessment
Proposed Residential Development
127 1st Line, Elora

Elora Greens Inc.

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February 2026
300060179.0000

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Record of Revisions

Revision	Date	Description
0	February 24, 2026	Initial Submission to Centre Wellington

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Executive Summary

R.J. Burnside & Associates Limited (Burnside) was retained by Elora Greens Inc. to prepare an Environmental Noise Feasibility Assessment for the 127 1st Line Residential Development. The property is located at 127 1st Line , Elora, Ontario.

The only significant road traffic noise source is 1st Line. Sound levels from 1st Line were modelled based on the future traffic volumes. The resulting future sound levels were compared to the applicable Ministry of the Environment, Conservation and Parks (MECP) limits in order to determine whether any noise control measures are required.

There are no rail traffic noise sources of concern within 300 m of the development.

The subject development is not located within the NEF / NEP noise contours of any airports. Therefore, aircraft noise is not considered a significant noise source for this development.

The assessment revealed that transportation noise mitigation measures are required for this development. Required measures include:

- Provision for the installation of central air conditioning – Block 1 (All Units)

Sound levels at the newly developed lots will meet the MECP noise guideline requirements after all suggested noise mitigation measures listed above are implemented.

The nearby stationary noise sources of concern to the development include Jefferson Elora Corporation which contain HVAC, Transport Truck, and exhaust fans. Sound levels from these sources were modelled based on theoretical single sources calibrated for maximum allowable noise levels at neighbouring noise sensitive properties. This assessment is based on the assumption that both neighbouring properties are compliant with MECP limits at existing noise sensitive receptors. This approach is possible because both facilities have current valid provincial noise approvals (ECA/EASR). The resulting future sound levels were compared to the applicable MECP limits for a Class 2 Area in order to determine whether any noise control measures are required. The ambient noise conditions predicted for the proposed development were not considered.

The assessment revealed that the stationary sound levels at all points of reception on the proposed development are below MECP limits; therefore, no external stationary noise mitigation measures are required.

The development does not currently have internal stationary noise sources.

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Aerial Photography taken from Google Earth Professional, 2015.

In acoustics it is impossible to achieve no adverse effects for one hundred percent of the population. Certain persons are hyper sensitive to noise and will find compliant noise situations to cause adverse effects.

1.0 Introduction

R.J. Burnside & Associates Limited (Burnside) was retained by Elora Greens Inc. to prepare an Environmental Noise Feasibility Assessment for the new 127 1st Line Residential Development. The property is located at 127 1st Line, Elora, Ontario.

The purpose of this assessment is to examine potential noise impacts relating to the proposed residences along 1st Line, Elora.

1.1 Objective

This report has been prepared in support of the new 127 1st Line Residential Development. This report will be included in a submission for the Zoning Bylaw Amendment. The potential noise impacts were assessed using the Ministry of the Environment, Conservation and Parks (MECP) traffic noise prediction model ORNAMENT, implemented through the STAMSON (version 5.04) computer program. Sound levels were predicted based on 10-year future traffic forecast for 1st Line (see Table 1). The potential noise impacts were evaluated by comparing predicted sound levels at the representative points of reception with the MECP sound level limits.

1.2 Study Area

The proposed 127 1st Line Residential Development is located south of 1st Line in Elora, Ontario. The site location map is provided in Figure 1.

The Site Plan is shown in Figure 2. The proposed development is in an area currently zoned by Centre Wellington as zoning definition A – Agricultural Zone. The zoning map is shown in Figure 3.

1.3 Site Visit

Burnside did not conduct a site visit as it was determined that all critical information about the site could be determined from publicly available aerial photographs and Streetview.

Burnside's review of the study area did not discover any unregulated noise sources of potential concern such as a dog park or daycare playground.

2.0 Applicable Noise Criteria

The proposed 127 1st Line Residential Development is located in a Class 2 Semi-Urban Area.

2.1 MECP Noise Policies

Environmental Noise Guideline – Stationary and Transportation Sources – Approval and Planning (NPC-300) is the MECP Publication which provides advice, sound level limits and guidance that may be used when land use planning decisions are made under the Planning Act, and the Niagara Escarpment Planning and Development Act. This guidance is for land use planning authorities, developers, and consultants. It is intended to minimize the potential conflict between proposed noise sensitive land uses and sources of noise emissions.

2.1.1 Transportation Noise

2.1.1.1 Outdoor Living Areas

NPC-300 indicates that the sound level should be assessed in an outdoor living area (OLA). Where the noise exceeds the applicable sound level limits, mitigation measures may be required. Noise control measures are not required if the sound level estimated in the OLA is 55 dBA or less during the daytime hours.

NPC-300 indicates that if the 16-hour equivalent sound level in the OLA is between 55 dBA and 60 dBA, noise control measures may be applied to reduce the sound level to 55 dBA; otherwise, a warning clause Type A should be issued. If the sound level in the OLA is greater than 60 dBA, noise control measures should be implemented to reduce the level to 55 dBA. Only in cases where the required noise control measures are not feasible for technical, economic, or administrative reasons would an excess above the limit (55 dBA) be acceptable with a warning clause Type B.

2.1.1.2 Plane of a Window

If the sound level in the plane of a bedroom or living / dining room window is between 55 dBA and 65 dBA during daytime or between 50 dBA and 60 dBA during nighttime, the dwelling should be designed with a provision for the installation of central air conditioning in the future. Warning clause Type C is also recommended. If the sound level in the plane of a bedroom or living / dining room window is greater than 65 dBA during daytime or 60 dBA during nighttime, installation of central air conditioning should be implemented with a warning clause Type D.

The location and installation of any required outdoor air conditioning devices must comply with the MECP's publication: Residential Air Conditioning Devices (NPC-216).

NPC-216 requires that the sound levels of the condensing units not exceed the maximum sound level of 55 dBA[1] at the neighbour's closest point of reception. Applicable points of reception are defined as the closest window or ground based outdoor living areas. Air conditioning units with a maximum Air-conditioning Refrigeration Institute (ARI) standard sound rating of greater than 7.6 Bels are also prohibited.

2.1.1.3 Indoor Living Areas

For road noise, the indoor sound level limit is 45 dBA for living / dining areas at any time and during daytime in the sleeping quarters. The sound level in the sleeping quarters should not exceed 40 dBA during nighttime.

2.1.1.4 Aircraft Noise

For aircraft noise, if the outdoor Noise Exposure Forecast / Noise Exposure Projection (NEF / NEP) value is less than 25, further assessment is not required. If the receptor is located between the NEF / NEP contours of 25 and 30, the dwelling should be designed with a provision for central air conditioning, along with warning clause Type C. In addition, the building components should be designed to achieve the indoor sound level limit of 0 NEF / NEP for sleeping quarters and 5 NEF / NEP for all other indoor living areas.

If the NEF / NEP value is greater than 30, municipal approval is required for a residential development proposal to proceed. If the municipality grants approval, then central air conditioning must be implemented, along with warning clauses Type B and Type D. In addition, the building components should be designed to achieve the indoor sound level limit of 0 NEF / NEP for sleeping quarters and 5 NEF / NEP for all other indoor living areas[2].

2.1.2 Stationary Noise

The applicable stationary noise criteria are dependent on the Class Area as well as the ambient sound levels present at each point of reception. The applicable criteria are the greater of the exclusion limits, provided in the MECP tables in Appendix B, or the lowest hourly ambient sound level predicted for a given point of reception.

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[1] 55 dBA is permissible for new land use developments when air conditioning is a mandatory requirement.

[2] The indoor NEF/NEP values are not obtained from NEF/NEP contour maps. The values are representative of the indoor sound levels and are used as assessment criteria for the evaluation of acoustical insulation requirements (MECP, NPC-300, Section C-6). Since NEF = $L_{eq\ (24)}$ – 32 dBA, NEF 0 corresponds to $L_{eq\ (24)}$ of 32 dBA and NEF 5 corresponds $L_{eq\ (24)}$ of 37 dBA.

The proposed 127 1st Line Residential Development is located in a Class 2 Semi-Urban Area.

The MECP criteria for the outdoor receptors considered in this report are 50 dBA from 07:00 – 23:00.

The MECP criteria for the plane of window receptors considered in this report are 50 dBA from 07:00 –23:00 and 45 dBA from 23:00 – 07:00.

MECP tables showing all criteria for all Classes of Urban Areas and all time periods are shown in Appendix B.

2.2 Regional and Municipal Policies

In addition to the preceding MECP noise criteria from NPC-300, the proposed development is also subject any regional and municipal requirements. However, neither Region nor the Town have published noise standards or bylaws for new developments.

3.0 Transportation Noise Sources and Receptors

3.1 Road Noise Sources

The road traffic noise source assessed for the potential impact on the new 127 1st Line Residential Development is 1st Line.

Traffic volume data was received as actual counts from the Municipality. To be conservative, the maximum hourly values were used in this assessment. The traffic volumes are presented in Table 1 and Table 2. Table 1 shows a summary of the current traffic volumes while Table 2 shows a breakdown of the 10-year predicted road traffic volumes. The road traffic data provided to Burnside for this report is included in Appendix A.

It is assumed that medium trucks make up 3% of the total traffic, and heavy trucks make up 3% of the total traffic on 1st Line. These assumptions were made by Burnside based on what is typical of roads of this type, with the heavy truck percentage inflated due to the presence of a large facility.

The day / night traffic volume was split 90% / 10% as per the STAMSON Technical Document recommendation for regional roads.

The current posted speed limit is 40 km/h on 1st Line. It was assumed to remain the same within the next ten years. Given trends in traffic speeds in urban areas, the speed limit is most likely to decrease so choosing 40 km/h is a conservative approach.

3.2 Rail Noise Sources

There are no railway traffic noise sources of concern to the development as there are no railways located within 300 m of the proposed development.

3.3 Aircraft Noise Sources

The closest airport is the Fergus (Juergensen Field) Airport in Centre Wellington which is approximately 7.4 km south of the Site. The subject development is not located within the NEF / NEP noise contours of any airports. Therefore, aircraft noise is not considered a significant noise source for this development.

3.4 Transportation Noise Receptors

Two residential points of reception have been identified as being the most representative sensitive points of reception. This low number of points of reception was feasible as the sound levels from 1st Line are relatively low except for the furthest north lots and blocks. Sound levels at all other receptors without a calculation will be at or below the sound

levels of the representative receptors next to them. Sound levels at the points of reception are dependent on the separation distance from the road. The highest sound levels will be experienced at the closest receptors Residential dwellings experiencing the same traffic volumes with larger separation distances are expected to have lower sound levels than the representative receptor used in the noise model.

The development will consist of between 383 to 850 residential units, pending decisions on final design. In order to be conservative, all the houses were assumed to be 2-storey for the purpose of this assessment.

4.0 Transportation Noise Impact Assessment

4.1 Methodology

Sound levels associated with road traffic predicted with MECP traffic noise prediction methodology ORNAMENT, implemented through the STAMSON (version 5.04) computer program. The model calculates expected sound levels based on road traffic, distance to receptor, receptor height, and topographical features. In order to predict sound levels from road traffic, STAMSON requires:

- Source to receiver distance – between 15 m and 500 m
- Minimum traffic volume – 40 vehicles per hour
- Minimum vehicle speed – 50 km/h

The assumptions below were used in the noise model:

- The road gradient was assumed to be 2%.
- Road pavement was assumed as a standard asphalt surface.
- Flat / gentle slope topography was selected.
- Intermediate surface was assumed to be absorptive.

Outdoor Living Area points of reception were taken 3 m away from the building and 1.5 m above grade. Plane of Windows points of reception were taken at the building façade and 4.5 m above the grade, representing the second floor.

4.2 Predicted Sound Levels – Plane of Window (POW)

Following the methodology presented above, Burnside has predicted sound levels at two representative receptors which provide sufficient information to determine the requirements for the entire development site. The assessment point was taken at the northwest corner of the property, at the height of 4.5 m. These results are summarized in Table 3. A sample modeling printout is included in Appendix C (Description: POR 1 – Plane of Window Calculation). The worst case predicted level was 58 dBA during the daytime, and 58 dBA during the nighttime.

Based on the calculations, the following units require provision for air conditioning and a warning clause Type C, as the predicted sound levels are in the range of 56 dBA to 65 dBA during the daytime and / or 51 dBA to 60 dBA during the nighttime.

- **Block 1 (All units)**

Based on the calculations, the following units are not required to have any mitigation, as the predicted sound levels are at or below 55 dBA during the daytime and 50 dBA during the nighttime.

- **All other Lots / Blocks**

4.3 Predicted Sound Levels – Outdoor Living Area (OLA)

Following the methodology presented in Section 4.1, Burnside has predicted OLA sound levels at two representative receptors that provides sufficient information to determine the requirements for the whole development site. The points were taken at a height of 1.5 m, at the northern property line of the lot / block. These results are summarized in Table 3. A sample modeling printout is included in Appendix C (Description: POR 1 – OLA Calculation). The worst case predicted level was 58 dBA during the daytime.

Based on the calculations, an acoustic barrier is not required for the proposed development, as the worst case predicted unmitigated sound levels are at or under the MECP maximum allowable sound level of 60 dBA during the daytime. A warning clause Type A should be provided in the event an OLA is provided which is directly exposed to 1st Line (which is the worst case currently modeled).

4.4 Predicted Sound Levels – Indoor Living Areas

A preliminary building component assessment is required if the daytime sound levels at the plane of window exceed 65 dBA or the nighttime sound levels at the plane of window exceed 60 dBA. As the sound levels at any units did not exceeded these criteria, the assessment was not required and Standard Sound Transmission Class (STC) window and wall designs will be acceptable for all units.

5.0 Stationary Noise Sources and Receptors

5.1 Internal Stationary Noise

It is known that there will be internal stationary noise sources of concern at this development. These include, garage exhaust fans, roof top mechanical systems, emergency generators, transformers and potentially more. At this time, the site plan is insufficiently detailed to prepare a realistic model with meaningful conclusions about the development's internal stationary context and needs.

With any development of this size, mitigation needs will exist but are well known to be possible to mitigate for many developments with a similar scope. A detailed model of the internal stationary noise and the mitigation controls needed for compliance will be provided in the Site Plan Approval application in a Detailed Environmental Noise Assessment.

5.2 External Stationary Noise

External stationary noise is defined as the off-site stationary noise with potential to impact the proposed development. The potential impact of external stationary noise is assessed at all worst-case predictable noise sensitive locations within the proposed development itself.

5.2.1 External Stationary Noise Sources

The proposed 127 1st Line Residential Development is in proximity to the following businesses / operations with potential noise impact on the proposed development:

- Jefferson Elora Corporation (ECA – November 22, 2022)
  - Located 300 m west of the development
  - Noise Sources:
    - EX001: Assumed to be 120 dBA, based on a nighttime sound level of 45 dBA at the nearest existing noise sensitive receptors.
- Kamp2021 Inc. (Roof Trusses & Components) (EASR – July 27, 2021)
  - Located 65 m west of the development.
  - Noise Sources:
    - EX002: Assumed to be 105 dBA, based on reported current daytime maximum of 48 dBA in the EASR Acoustic Assessment Summary Table.

The MECP approvals for both of these businesses are included in Appendix E.

5.2.2 External Stationary Noise Points of Reception

The impact of the Jefferson Elora Corporation described above have been assessed for their impact on the proposed 127 1st Line Residential Development. The following worst-case predictable points of reception were selected for the analysis:

- POR1: Mixed Use Lot

6.0 Stationary Noise Impact Assessment

6.1 Methodology

Sound levels associated with stationary noise are predicted with Softnoise GmbH iNoise software, version 2024.2.1 (64 bit) (iNoise) noise modeling software. iNoise follows the ISO 9613/2 method of sound level calculation as implemented in the ISO 17534-3 Quality Assurance standard.

The following settings are used:

- Calculation height: 4.5 m
- Default Ground attenuation Factor: 0 (reflective)
- No Barrier effect for direct sight: Active
- D_{max} According to ISO 9613: Active
- Avoid overestimating barrier effect: Active
- Terrain model: Use full DTM
- Temperature: 283.15 K
- Pressure: 101.33 kPa
- Air humidity: 70%[3]

6.2 Predicted Ambient Sound Levels and Applicable Criteria

No ambient sound levels were calculated. Instead, the MECP exclusion limits for a Class 2 area will be used. The applicable sound level criteria for stationary noise are presented in Table 4.

6.3 Predicted External Stationary Sound Levels

The predicted external stationary sound levels of the neighbouring stationary sources onto the proposed development are presented in Table 5 and Table 6.

Therefore, as the unmitigated external stationary sound levels are compliant with the applicable sound level criteria for all PORs mitigation is not required.

[3] ISO 9613 Requirement

7.0 Noise Mitigation Measures

Based on the predicted traffic sound levels it was determined that noise mitigation measures are required for some units within this Residential Development. The required measures are summarized in Table 7.

7.1 Ventilation Requirements

The following units are required to have provision for air conditioning and warning clause Type C. If air conditioning is voluntarily provided by the developer a warning clause Type D will replace the warning clause Type C.

- **Block 1 (All Units)**

All other units do not have any ventilation requirements.

7.2 Acoustic Barrier Requirements

All units in the proposed 127 1st Line Residential Development do not have any acoustic barrier recommendations or requirements, but a Type A warning clause is required unless the OLA is located such that there is shielding from 1st Line

7.3 STC Requirements

All units in the proposed development will achieve the minimum MECP indoor sound levels by incorporating standard requirements for the exterior walls and doors as per the Ontario Building Code. The windows required to meet the minimum MECP indoor sound level are of a commonly available STC rating. Minimum ratings for windows are discussed in Section 4.4, which are applicable to all dwellings requiring AC (which are listed in Section 7.1).

7.4 External Stationary Noise Mitigation Requirements

The assessment of the nearby stationary noise sources to the proposed 127 1st Line determined that the cumulative impact of all stationary sources complied with the applicable MECP noise standards without mitigation.

8.0 Implementation Procedures

The following implementation procedures are recommended to ensure that each requirement of this study is implemented at the correct stage of the development process:

- Prior to Site Plan Approval an Acoustical Consultant should be retained to conduct a Detailed Environmental Noise Assessment. A Detailed Environmental Noise Assessment requires proposed building locations and a proposed grading plan to be finalized. The recommendations of this Environmental Noise Feasibility Assessment are preliminary estimates to ensure the viability of the proposed development. A Detailed Environmental Noise Assessment will finalize most of the acoustic requirements for the development.
- Although air conditioning was not required for this development, prior to Issuance of Building Permit an Acoustical Consultant should be retained to assess or determine the locations and Bel ratings of any developer installed air conditioning units for compliance with NPC-216. Improperly installed air conditioning units can result in being required to install acoustic jackets, relocate or fully replace any noncomplying units.
- Prior to occupancy, the development should be certified by a qualified Acoustics Engineer for compliance with the requirements of the Detailed Environmental Noise Assessment.

9.0 Conclusion

The results of 127 1st Line Residential Development Environmental Noise Feasibility Assessment demonstrate that if all noise mitigation measures prescribed in Table 7 are implemented, sound levels at all developed lots will meet the Ministry of the Environment, Conservation and Parks noise guideline requirements. The Implementation Procedures as outlined in Section 8.0 should be followed carefully to ensure that no requirements of the noise study are overlooked during the development and construction process.

10.0 References

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Controlling Sound Transmission into Buildings by J.D. Quirt. National Research Council Canada, September 1985.

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ORNAMENT – Ontario Road Noise Analysis Method for Environment and Transportation. Technical Document. Ministry of the Environment, Conservation and Parks, October 1989.

Profession Engineers Providing Acoustical Engineering Services in the Land Use Planning Process. Professional Engineers Ontario. 2024

Environmental Guide for Noise, October 2006. Ministry of Transportation Ontario.

BURNSIDE

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Tables

Table 1: Traffic Data

Road	1st Line
Location	East of Bridge Street
"Current" Daily Traffic	2,955
"Current" Year	2022
Assumed Growth Rate	2.50%
"Future" Year	2036
10-Year Daily Traffic[14]	4175
No. of Lanes	2
Posted Speed	40 km/h
% Heavy Trucks	3%
% Medium Trucks	3%
Day/Night Split	90%/10%

Table 2: 10-year Predicted Road Traffic Volumes

Road	Maximum AADT Traffic			
	Total	**# of Light Vehicles**	**# of Medium Trucks**	**# of Heavy Trucks**
1st Line	4175	3925	125	125

Table 3: Predicted Daytime and Nighttime Sound Levels for the Forecasted 10-Year Traffic Volumes

Receptor ID	Lot #	Area	Distance (m)	Predicted Sound Levels (dBA)	
				Daytime	**Nighttime**
1	Mixed Block	OLA	15	58	-
		PofW	15	58	52
2	First Row SFD[5]	OLA	203	39	-
		PofW	203	39	34

Notes:

- Outdoor Living Area (OLA) points of assessment were taken:
  - 3 m from the building façade
  - 1.5 m above grade
  - aligned with the midpoint of the subject façade
- Plane of Window (PofW) points of assessment were taken:
  - at the building façade
  - 4.5 m above grade

[4] Traffic growth Formula:

$$Future\ traffic = Present\ Traffic * (1 + growth\ \%)^{Years}$$

[5] Single Family Dwelling

Table 4: Applicable Stationary Sound Level Criteria

POR #	Time of Day	Ambient Sound Level	NPC-300 Exclusion Limit	Applicable Sound Level Criteria
PORs	Daytime	-	50 dBA	50 dBA
	Evening	-	50 dBA	50 dBA
	Nighttime	-	45 dBA	45 dBA
OPORs	Daytime	-	50 dBA	50 dBA
	Evening	-	45 dBA	45 dBA
	Nighttime	-	-	-

Table 5: Predicted External Stationary Sound Levels - Group 1 (Unmitigated)

POR #	Time of Day	Impact	Criteria	Compliance?
Receptors within the existing Neighbourhood				
POR1	Daytime	44 dBA	50 dBA	Yes
	Evening	44 dBA	50 dBA	Yes
	Nighttime	44 dBA	45 dBA	Yes
OPOR1	Daytime	41 dBA	50 dBA	Yes
	Evening	41 dBA	45 dBA	Yes
	Nighttime	41 dBA	--	--
POR2	Daytime	45 dBA	50 dBA	Yes
	Evening	45 dBA	50 dBA	Yes
	Nighttime	45 dBA	45 dBA	Yes
OPOR2	Daytime	41 dBA	50 dBA	Yes
	Evening	41 dBA	45 dBA	Yes
	Nighttime	41 dBA	--	--
Receptors within Proposed Development				
POR3	Daytime	43 dBA	50 dBA	Yes
	Evening	43 dBA	50 dBA	Yes
	Nighttime	43 dBA	45 dBA	Yes

Table 6: Predicted External Stationary Sound Levels – Group 2 (Unmitigated)

POR #	Time of Day	Impact	Criteria	Compliance?
Receptors within the existing Neighbourhood				
POR1	Daytime	44 dBA	50 dBA	Yes
	Evening	44 dBA	50 dBA	Yes
	Nighttime	44 dBA	45 dBA	Yes
OPOR1	Daytime	43 dBA	50 dBA	Yes
	Evening	- dBA	45 dBA	Yes
	Nighttime	- dBA	--	--
POR2	Daytime	48 dBA	50 dBA	Yes
	Evening	- dBA	50 dBA	Yes
	Nighttime	- dBA	45 dBA	Yes
OPOR2	Daytime	47 dBA	50 dBA	Yes
	Evening	- dBA	45 dBA	Yes
	Nighttime	- dBA	--	--
Receptors within Proposed Development				
POR3	Daytime	43 dBA	50 dBA	Yes
	Evening	43 dBA	50 dBA	Yes
	Nighttime	43 dBA	45 dBA	Yes

Table 7: Minimum Noise Mitigation Measures

Receptor ID	Lot #	Air Conditioning[1]	Exterior Wall STC Rating [2]	Window STC Rating[2]	Door STC Rating[2]	Acoustic Barrier Height (m)[3]	Warning Clause[4]
1	Block 1	Provision for adding	Standard	Standard	Standard	-	A, C
All others	All Others	No Requirements	Standard	Standard	Standard	-	None

Notes:

[1] "Provision for adding" means that building must be built so that the occupant can install air conditioning in the future, at their discretion. Required means that the building must be built with central air conditioning installed.

[2] STC – Sound Transmission Class rating. STC values are based upon the assumption that all wall and window areas are 80% and 30%, respectively, of the corresponding room floor area.

[3] height of an acoustic barrier with no gaps underneath or in the wall.

[4] Notification to potential purchaser of a potential annoyance due to an existing source of environmental noise. Warning clauses should be included in agreements of Offers of Purchase and Sale.

Warning Clauses - Transportation Sources

Type A

"Purchasers/tenants are advised that sound levels due to increasing road traffic (rail traffic) (air traffic) may occasionally interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment."

Type B

"Purchasers/tenants are advised that despite the inclusion of noise mitigation features in the development and within the building units, sound levels due to increasing road traffic (rail traffic) (air traffic) may on occasions interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment."

Type C

"This dwelling unit has been designed with the provision for adding central air conditioning at the occupant's discretion. Installation of central air conditioning by the occupant in low and medium density developments will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment."

Type D

"This dwelling unit has been supplied with a central air conditioning system which will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment."

Warning Clauses - Stationary Sources

Type E

"Purchasers/tenants are advised that due to the proximity of the adjacent industry (facility) (utility), noise from the industry (facility) (utility) may at times be audible."

Warning Clauses – Class 4 Area Notification

Type F

"Purchasers/tenants are advised that sound levels due to the adjacent industry (facility) (utility) are required to comply with sound level limits that are protective of indoor areas and are based on the assumption that windows and exterior doors are closed. This dwelling unit has been supplied with a ventilation/air conditioning system which will allow windows and exterior doors to remain closed."

BURNSIDE

[THE DIFFERENCE IS OUR PEOPLE]

Figures





KEY MAP OF ONTARIO

BURNSIDE

Client

Elora Greens Inc.

Figure Title

Site Location Map

Environmental Noise Feasibility Report

Drawn	Checked	Date	Figure No.
BM	HW	September 2025	1
Scale		Project No.	
1:6,000		300060179.0000	

File: C:\Users\bmiller\RJB\060179 127 1st Line Elora - ZBA and DP - Documents\02_Tech Proj Doc\Dwg Fig Map\RJB_Fig Titleblock_8.5x11 (216x279).dwg Date Plotted: September 4, 2025 - 10:19 AM



DRAFT PLAN OF SUBDIVISION

LEGAL DESCRIPTION

PT LT 3 CON 1 NICHOL PART 2 , 61R501;
TOWNSHIP OF CENTRE WELLINGTON
COUNTY OF WELLINGTON

OWNER'S CERTIFICATE

I HEREBY AUTHORIZE MACNAUGHTON HERMSEN BRITTON CLARKSON PLANNING LIMITED TO SUBMIT THIS PLAN FOR APPROVAL.

Date: _____

Farhan Kamali Siddiqui
Elora Greens Inc.

Date: _____

Mohammad Tahir

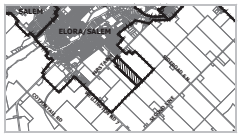
SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THE BOUNDARIES OF THE LAND TO BE SUBDIVIDED ON THIS PLAN AND THEIR RELATIONSHIP TO THE ADJACENT LANDS ARE ACCURATELY AND CORRECTLY SHOWN.

Date: _____

James M. Laws, Surveyor, O.L.S.
Van Harten Surveying Inc.

KEY PLAN



ADDITIONAL INFORMATION

Required Under Section 51 (17) of the Planning Act, R.S.O., 1990, c.P.13 as Amended

(a) As Shown	(b) As Shown	(c) As Shown
(d) Residential, Mixed Use, Park, Trail, Pump Station, Stormwater Management		
(e) As Shown	(f) As Shown	(g) As Shown
(h) Municipal Water Supply	(i) Clay/Sandy Loam	(j) As Shown
(k) All Services As Required	(l) As Shown	

AREA SCHEDULE

DESCRIPTION	LOTS/BLOCKS	UNITS	AREA
Low Density Residential	1-18	202-472	9.327 ha
Multiple Residential	19,20	60-131	1.751 ha
Mixed Use	21	34-74	0.988 ha
Park	22-25		1.287 ha
Trail	26		1.057 ha
Walkways	27,28		0.042 ha
Pump Station	29		0.263 ha
Stormwater Management	30		1.992 ha
0.3m Reserve	31-33		0.003 ha
Roads			4.871 ha
Total	**33**	**296-677**	**21.581 ha**

NOTES

1. All dimensions are in metres unless otherwise shown.
2. Contains information licensed under the Open Government Licence - Ontario.

Revision No.	Date	Issued / Revision	By
1.	March 6, 2026	Preliminary Draft Plan;	PL

Stamp

Date	March 6, 2026
File No.	24277A
Plan Scale	1:1500 (Arch D)
Drawn By	P.L.
Checked By	P.S.

Project

Elora Green
127 First Line,
Township of Centre Wellington,
County of Wellington.

File Name

DRAFT PLAN OF SUBDIVISION

Dwg No.

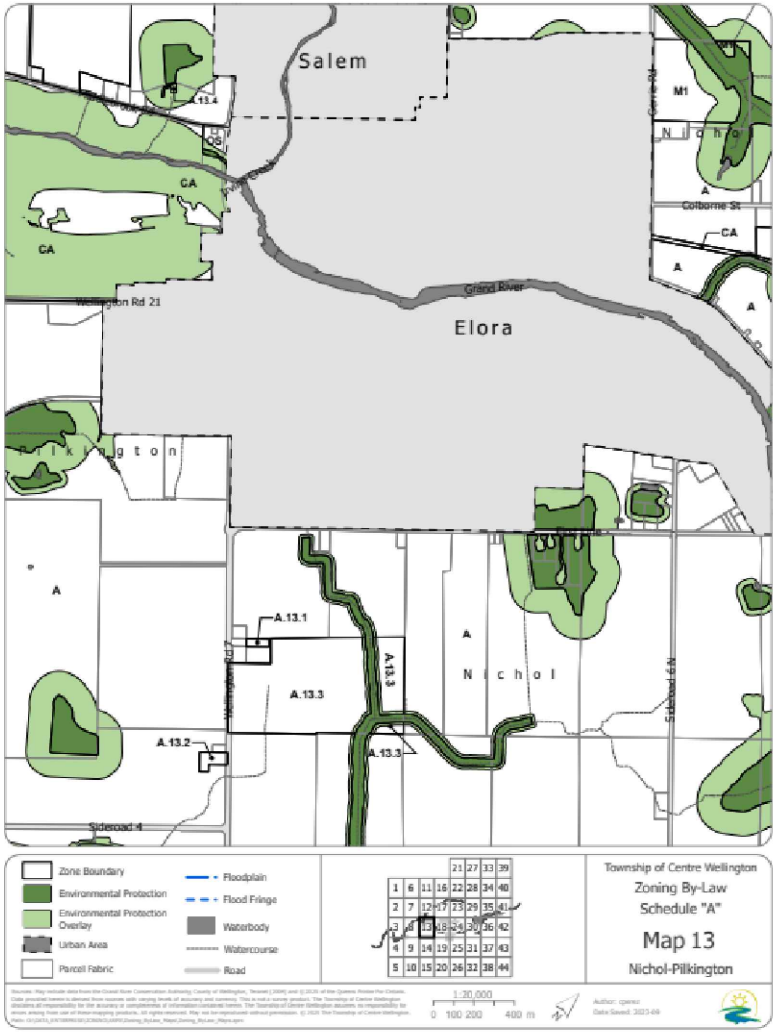
1 of 1

Scale Bar

0 10 25 50 100 150m

K:\24277A-127 First Line Centre Wellington\DP\DP_MNet2018.dwg

MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE



BURNSIDE

Figure Title

Zoning Map

Environmental Noise Feasibility Assessment

Client

Elora Greens Inc.

Drawn	Checked	Date	Figure No.
BM	HW	August 2025	**3**
Scale		Project No.	
N/A		300060179.0000	

File: C:\Users\bmiller\RJB\060179 127 1st Line Elora - ZBA and DP - Documents\02_Tech Proj Doc\Dwg Fig Map\CAD Figures.dwg Date Plotted: September 4, 2025 - 10:06 AM



BURNSIDE

Figure Title

Stationary Noise - Points of Reception

Environmental Noise Feasibility Assessment

Client	Drawn	Checked	Date	Figure No.
Elora Greens Inc.	BM	HW	February 2026	**4**
	Scale		Project No.	
	1:6,000		300060179.0000	

File: C:\Users\bmiller\RJB\060179 127 1st Line Elora - ZBA and DP - Documents\02_Tech Proj Doc\Dwg Fig Map\CAD Figures.dwg Date Plotted: February 24, 2026 - 4:24 PM



BURNSIDE

Figure Title

External Stationary Noise Sources

Environmental Noise Feasibility Assessment

Client

Elora Greens Inc.

Drawn	Checked	Date	Figure No.
BM	HW	February 2026	**5**
Scale		Project No.	
1:6,000		300060179.0000	

File: C:\Users\bmiller\RJB\060179 127 1st Line Elora - ZBA and DP - Documents\02_Tech Proj Doc\Dwg Fig Map\CAD Figures.dwg Date Plotted: February 24, 2026 - 4:23 PM

BURNSIDE

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Appendix A

Traffic Data

Report-1.1		Location :	CW22-48EW	FIRST LINE - EAST OF WELLINGTON RD 7													
		Direction :	East	Road :													
		Dates :	05/17/2022														
Classes ---------->		Class-1	Class-2	Class-3	Class-4	Class-5	Class-6	Class-7	Class-8	Class-9	Class-10	Class-11	Class-12	Class-13	Total		
OO:OO	0:15		2												2	0.1%	
0:15	0:30		1							1					2	0.1%	
0:30	0:45			2											2	0.1%	
0:45	1:00		1							1					2	0.1%	
OO:OO	1:00		4	2						2					8	0.5%	
1:00	1:15		1												1	0.1%	
1:15	1:30		1												1	0.1%	
1:30	1:45		1			1									2	0.1%	
1:45	2:00																
1:00	2:00		3			1									4	0.3%	
2:00	2:15		1												1	0.1%	
2:15	2:30																
2:30	2:45									1					1	0.1%	
2:45	3:00																
2:00	3:00		1							1					2	0.1%	
3:00	3:15																
3:15	3:30		1							1					2	0.1%	
3:30	3:45																
3:45	4:00		1												1	0.1%	
3:00	4:00		2							1					3	0.2%	
4:00	4:15		1												1	0.1%	
4:15	4:30		1												1	0.1%	
4:30	4:45		1												1	0.1%	
4:45	5:00		1	1						1					3	0.2%	
4:00	5:00		4	1						1					6	0.4%	
5:00	5:15		2	1						3				1	7	0.5%	
5:15	5:30		7	2											9	0.6%	
5:30	5:45		29	2											31	2.1%	
5:45	6:00		13	3						2					18	1.2%	
5:00	6:00		51	8						5				1	65	4.3%	
6:00	6:15		8		1		1								10	0.7%	
6:15	6:30		32	1					1						34	2.3%	
6:30	6:45		13	3		1				1					18	1.2%	
6:45	7:00		11	7		3				1				1	23	1.5%	
6:00	7:00		64	11	1	4	1		1	2				1	85	5.7%	
7:00	7:15		17	5	1	1				1					25	1.7%	
7:15	7:30		7	4		1									12	0.8%	
7:30	7:45	1	15	4	1	2			1	1					25	1.7%	
7:45	8:00		17	6	1	1			1	1					27	1.8%	
7:00	8:00	1	56	19	3	5			2	3					89	5.9%	
8:00	8:15		9	5		3				1					18	1.2%	
8:15	8:30		6	5		1	1			5					18	1.2%	
8:30	8:45		4	3	1	1									9	0.6%	
8:45	9:00		12	5	1					2					20	1.3%	
8:00	9:00		31	18	2	5	1			8					65	4.3%	
9:00	9:15		8	9			1			1	1				20	1.3%	
9:15	9:30		6	8	1		1								16	1.1%	
9:30	9:45		8	1		1									10	0.7%	
9:45	10:00		8	4		1			1						14	0.9%	
9:00	10:00		30	22	1	2	2		1	1	1				60	4.0%	
10:00	10:15		9	4						1					14	0.9%	
10:15	10:30		6	7						3					16	1.1%	
10:30	10:45		4	3	1	2									10	0.7%	
10:45	11:00		8	4		1			1	1					15	1.0%	
10:00	11:00		27	18	1	3			1	5					55	3.7%	
11:00	11:15		7	7		1	1		1						17	1.1%	
11:15	11:30		7	4						2					13	0.9%	
11:30	11:45		6	2			1			1					10	0.7%	
11:45	12:00		6	5	1					2	1				15	1.0%	
11:00	12:00		26	18	1	1	2		1	5	1				55	3.7%	

12:00	**12:15**	1	6	2		1				1					**11**	0.7%
12:15	**12:30**		11	4		3				1				1	**20**	1.3%
12:30	**12:45**		10	2		1				1					**14**	0.9%
12:45	**13:00**		12												**12**	0.8%
12:00	**13:00**	1	39	8		5				3				1	**57**	3.8%
13:00	**13:15**		8	7					1						**16**	1.1%
13:15	**13:30**		14	8		1			1	2					**26**	1.7%
13:30	**13:45**	1	17	4		1				1					**24**	1.6%
13:45	**14:00**		10	4		2									**16**	1.1%
13:00	**14:00**	1	49	23		4			2	3					**82**	5.5%
14:00	**14:15**	2	13	4	1	1									**21**	1.4%
14:15	**14:30**		13	5						3					**21**	1.4%
14:30	**14:45**		27	9											**36**	2.4%
14:45	**15:00**		44	5	1		1			2					**53**	3.5%
14:00	**15:00**	2	97	23	2	1	1			5					**131**	8.7%
15:00	**15:15**		32	10		1									**43**	2.9%
15:15	**15:30**		47	3			1								**51**	3.4%
15:30	**15:45**		31	8	2	1									**42**	2.8%
15:45	**16:00**		22	7	1						1				**31**	2.1%
15:00	**16:00**		132	28	3	2	1				1				**167**	11.1%
16:00	**16:15**		17	7						1					**25**	1.7%
16:15	**16:30**	1	22	7		2									**32**	2.1%
16:30	**16:45**		20	6		1				1					**28**	1.9%
16:45	**17:00**		25	7	1	1				1					**35**	2.3%
16:00	**17:00**	1	84	27	1	4				3					**120**	8.0%
17:00	**17:15**		19	9											**28**	1.9%
17:15	**17:30**		25	9		2	1		1	1					**39**	2.6%
17:30	**17:45**		22	7		1									**30**	2.0%
17:45	**18:00**		9	5											**14**	0.9%
17:00	**18:00**		75	30		3	1		1	1					**111**	7.4%
18:00	**18:15**		21	5											**26**	1.7%
18:15	**18:30**		9	5		2			1	1					**18**	1.2%
18:30	**18:45**		17	7		1									**25**	1.7%
18:45	**19:00**		19	4						1					**24**	1.6%
18:00	**19:00**		66	21		3			1	2					**93**	6.2%
19:00	**19:15**		8	3		2				1					**14**	0.9%
19:15	**19:30**		13	4		1				1					**19**	1.3%
19:30	**19:45**		9	6		3									**18**	1.2%
19:45	**20:00**		12	2						1					**15**	1.0%
19:00	**20:00**		42	15		6				3					**66**	4.4%
20:00	**20:15**		16	3						1					**20**	1.3%
20:15	**20:30**	1	8	4						2					**15**	1.0%
20:30	**20:45**		10	1					1	2				2	**16**	1.1%
20:45	**21:00**		7	2							1				**10**	0.7%
20:00	**21:00**	1	41	10					1	5	1			2	**61**	4.1%
21:00	**21:15**		7	3											**10**	0.7%
21:15	**21:30**		3	2											**5**	0.3%
21:30	**21:45**		7	1						1					**9**	0.6%
21:45	**22:00**		6	1		1									**8**	0.5%
21:00	**22:00**		23	7		1				1					**32**	2.1%
22:00	**22:15**	1	11	1											**13**	0.9%
22:15	**22:30**	1	11												**12**	0.8%
22:30	**22:45**	1	11			1	1								**14**	0.9%
22:45	**23:00**		17												**17**	1.1%
22:00	**23:00**	3	50	1		1	1								**56**	3.7%
23:00	**23:15**		11	1						1					**13**	0.9%
23:15	**23:30**		1	2						1					**4**	0.3%
23:30	**23:45**		3												**3**	0.2%
23:45	**OO:OO**		4	2						1					**7**	0.5%
23:00	**OO:OO**		19	5						3					**27**	1.8%
Total		**10**	**1016**	**315**	**15**	**51**	**10**		**11**	**63**	**4**			**5**	**1500**	
		0.7%	67.7%	21.0%	1.0%	3.4%	0.7%		0.7%	4.2%	0.3%			0.3%		
AM PEAK		**1**	**32**	**9**	**1**	**3**	**1**		**1**	**5**	**1**			**1**	**34**	
period		7:30	6:15	9:00	6:00	6:45	6:00		6:15	8:15	9:00			5:00	6:15	
% of class		10.0%	3.1%	2.9%	6.7%	5.9%	10.0%		9.1%	7.9%	25.0%			20.0%		2.3%
PM PEAK		**2**	**47**	**10**	**2**	**3**	**1**		**1**	**3**	**1**			**2**	**53**	
period		14:00	15:15	15:00	15:30	12:15	14:45		13:00	14:15	15:45			20:30	14:45	
% of class		20.0%	4.6%	3.2%	13.3%	5.9%	10.0%		9.1%	4.8%	25.0%			40.0%		3.5%

Report-1.2

Location : **CW22-48EW** **FIRST LINE - EAST OF WELLINGTON RD 7**

Direction : **East** Road :

Dates : **05/18/2022**

Classes ---------->		Class-1	Class-2	Class-3	Class-4	Class-5	Class-6	Class-7	Class-8	Class-9	Class-10	Class-11	Class-12	Class-13	Total	
OO:OO	**0:15**	1	3				1								**5**	0.3%
0:15	**0:30**		2												**2**	0.1%
0:30	**0:45**		2												**2**	0.1%
0:45	**1:00**															
OO:OO	**1:00**	1	7				1								**9**	0.6%
1:00	**1:15**	1					1								**2**	0.1%
1:15	**1:30**									1					**1**	0.1%
1:30	**1:45**															
1:45	**2:00**															
1:00	**2:00**	1					1			1					**3**	0.2%
2:00	**2:15**															
2:15	**2:30**		1	1											**2**	0.1%
2:30	**2:45**															
2:45	**3:00**		1												**1**	0.1%
2:00	**3:00**		2	1											**3**	0.2%
3:00	**3:15**															
3:15	**3:30**									1					**1**	0.1%
3:30	**3:45**		1												**1**	0.1%
3:45	**4:00**															
3:00	**4:00**		1							1					**2**	0.1%
4:00	**4:15**		1												**1**	0.1%
4:15	**4:30**									2					**2**	0.1%
4:30	**4:45**		1												**1**	0.1%
4:45	**5:00**		1	1										1	**3**	0.2%
4:00	**5:00**		3	1						2				1	**7**	0.5%
5:00	**5:15**		3												**3**	0.2%
5:15	**5:30**		5	3						1					**9**	0.6%
5:30	**5:45**		31							4					**35**	2.3%
5:45	**6:00**		16	2		1				1					**20**	1.3%
5:00	**6:00**		55	5		1				6					**67**	4.5%
6:00	**6:15**		7				1								**8**	0.5%
6:15	**6:30**		35	1						1					**37**	2.5%
6:30	**6:45**		12	1							1				**14**	0.9%
6:45	**7:00**		9	7		1				1					**18**	1.2%
6:00	**7:00**		63	9		1	1			2	1				**77**	5.1%
7:00	**7:15**		16	6		2	1		1	3					**29**	1.9%
7:15	**7:30**	1	9	5		2									**17**	1.1%
7:30	**7:45**		19	2		3									**24**	1.6%
7:45	**8:00**	1	19	7	1				1	1					**30**	2.0%
7:00	**8:00**	2	63	20	1	7	1		2	4					**100**	6.7%
8:00	**8:15**	1	5	6		1				1					**14**	0.9%
8:15	**8:30**		3	5	1	1			1	3					**14**	0.9%
8:30	**8:45**		6	5	2		2		1						**16**	1.1%
8:45	**9:00**		17	6	1				2						**26**	1.7%
8:00	**9:00**	1	31	22	4	2	2		4	4					**70**	4.7%
9:00	**9:15**	1	12	4		2				3					**22**	1.5%
9:15	**9:30**		8	7											**15**	1.0%
9:30	**9:45**		9	3			1								**13**	0.9%
9:45	**10:00**		9	2		2				2					**15**	1.0%
9:00	**10:00**	1	38	16		4	1			5					**65**	4.3%
10:00	**10:15**		6	4	1	1									**12**	0.8%
10:15	**10:30**		7	3	1				1	1					**13**	0.9%
10:30	**10:45**		13	4		1	1								**19**	1.3%
10:45	**11:00**		10	4					1	1					**16**	1.1%
10:00	**11:00**		36	15	2	2	1		2	2					**60**	4.0%
11:00	**11:15**		5	4	1	1				1					**12**	0.8%
11:15	**11:30**		10	4		4	1	1		2					**22**	1.5%
11:30	**11:45**	1	14	3				1							**19**	1.3%
11:45	**12:00**	1	4	4			1								**10**	0.7%
11:00	**12:00**	2	33	15	1	5	2	2		3					**63**	4.2%

12:00	**12:15**	1	12	10		1	1			1				**26**	1.7%
12:15	**12:30**		6	7		1				1				**15**	1.0%
12:30	**12:45**		15	3		2	1							**21**	1.4%
12:45	**13:00**		11	4		2				5				**22**	1.5%
12:00	**13:00**	1	44	24		6	2			7				**84**	5.6%
13:00	**13:15**		12	4						1				**17**	1.1%
13:15	**13:30**		10	4		1	1							**16**	1.1%
13:30	**13:45**		12	2		1				2				**17**	1.1%
13:45	**14:00**		12	2									2	**16**	1.1%
13:00	**14:00**		46	12		2	1			3			2	**66**	4.4%
14:00	**14:15**		14	12	2				1	2				**31**	2.1%
14:15	**14:30**		25	7			1							**33**	2.2%
14:30	**14:45**		31	8						1				**40**	2.7%
14:45	**15:00**		41	5		1								**47**	3.1%
14:00	**15:00**		111	32	2	1	1		1	3				**151**	10.0%
15:00	**15:15**		34	6		2	1				1			**44**	2.9%
15:15	**15:30**		43	11	1					1				**56**	3.7%
15:30	**15:45**		25	8	1	1								**35**	2.3%
15:45	**16:00**		22	5	1	1				1	1			**31**	2.1%
15:00	**16:00**		124	30	3	4	1			2	2			**166**	11.0%
16:00	**16:15**		20	7		1	1			1				**30**	2.0%
16:15	**16:30**		19	10		1				1				**31**	2.1%
16:30	**16:45**		13	4										**17**	1.1%
16:45	**17:00**		20	5		1				1				**27**	1.8%
16:00	**17:00**		72	26		3	1			3				**105**	7.0%
17:00	**17:15**		22	6			1							**29**	1.9%
17:15	**17:30**		14	5		2				2				**23**	1.5%
17:30	**17:45**		27	5					1	1				**34**	2.3%
17:45	**18:00**		17	8		2								**27**	1.8%
17:00	**18:00**		80	24		4	1		1	3				**113**	7.5%
18:00	**18:15**		18	4										**22**	1.5%
18:15	**18:30**		17	5		1								**23**	1.5%
18:30	**18:45**		13	2		1								**16**	1.1%
18:45	**19:00**		11	5										**16**	1.1%
18:00	**19:00**		59	16		2								**77**	5.1%
19:00	**19:15**		13	3						1				**17**	1.1%
19:15	**19:30**		7	1		1				1				**10**	0.7%
19:30	**19:45**	1	11	2						3				**17**	1.1%
19:45	**20:00**		9	1						1				**11**	0.7%
19:00	**20:00**	1	40	7		1				6				**55**	3.7%
20:00	**20:15**		15											**15**	1.0%
20:15	**20:30**		4	1						1				**6**	0.4%
20:30	**20:45**		12	1					1					**14**	0.9%
20:45	**21:00**		9	4						1				**14**	0.9%
20:00	**21:00**		40	6					1	2				**49**	3.3%
21:00	**21:15**		3	3	1									**7**	0.5%
21:15	**21:30**		10	2										**12**	0.8%
21:30	**21:45**		3	1							1			**5**	0.3%
21:45	**22:00**		7											**7**	0.5%
21:00	**22:00**		23	6	1						1			**31**	2.1%
22:00	**22:15**	1	9	1										**11**	0.7%
22:15	**22:30**		6			1								**7**	0.5%
22:30	**22:45**		18	1										**19**	1.3%
22:45	**23:00**		14							2				**16**	1.1%
22:00	**23:00**	1	47	2		1				2				**53**	3.5%
23:00	**23:15**		10	2						2				**14**	0.9%
23:15	**23:30**		4											**4**	0.3%
23:30	**23:45**		7	1										**8**	0.5%
23:45	**OO:OO**			1										**1**	0.1%
23:00	**OO:OO**		21	4						2				**27**	1.8%
Total		**11**	**1039**	**293**	**14**	**46**	**17**	**2**	**11**	**63**	**4**	**3**	**1503**		
		0.7%	69.1%	19.5%	0.9%	3.1%	1.1%	0.1%	0.7%	4.2%	0.3%	0.2%			
AM PEAK		**1**	**35**	**7**	**2**	**4**	**2**	**1**	**2**	**4**	**1**	**1**	**37**		
period		OO:OO	6:15	6:45	8:30	11:15	8:30	11:15	8:45	5:30	6:30	4:45	6:15		
% of class		9.1%	3.4%	2.4%	14.3%	8.7%	11.8%	50.0%	18.2%	6.3%	25.0%	33.3%		2.5%	
PM PEAK		**1**	**43**	**12**	**2**	**2**	**1**		**1**	**5**	**1**	**2**	**56**		
period		12:00	15:15	14:00	14:00	12:30	12:00		14:00	12:45	15:00	13:45	15:15		
% of class		9.1%	4.1%	4.1%	14.3%	4.3%	5.9%		9.1%	7.9%	25.0%	66.7%		3.7%	

Report-1.3

Location : **CW22-48EW** **FIRST LINE - EAST OF WELLINGTON RD 7**
Direction : **West** Road :
Dates : **05/17/2022**

Classes ---------->		Class-1	Class-2	Class-3	Class-4	Class-5	Class-6	Class-7	Class-8	Class-9	Class-10	Class-11	Class-12	Class-13	Total	
OO:OO	**0:15**		23	1											**24**	1.7%
0:15	**0:30**		9	1											**10**	0.7%
0:30	**0:45**		9	3											**12**	0.9%
0:45	**1:00**		2							1					**3**	0.2%
OO:OO	**1:00**		43	5						1					**49**	3.5%
1:00	**1:15**															
1:15	**1:30**															
1:30	**1:45**		1							1					**2**	0.1%
1:45	**2:00**		1												**1**	0.1%
1:00	**2:00**		2							1					**3**	0.2%
2:00	**2:15**															
2:15	**2:30**															
2:30	**2:45**															
2:45	**3:00**															
2:00	**3:00**															
3:00	**3:15**		1												**1**	0.1%
3:15	**3:30**		2												**2**	0.1%
3:30	**3:45**									1					**1**	0.1%
3:45	**4:00**			1											**1**	0.1%
3:00	**4:00**		3	1						1					**5**	0.4%
4:00	**4:15**															
4:15	**4:30**															
4:30	**4:45**		2												**2**	0.1%
4:45	**5:00**		1												**1**	0.1%
4:00	**5:00**		3												**3**	0.2%
5:00	**5:15**		3							1					**4**	0.3%
5:15	**5:30**		8	2						1					**11**	0.8%
5:30	**5:45**		1	2											**3**	0.2%
5:45	**6:00**		9	2		1									**12**	0.9%
5:00	**6:00**		21	6		1				2					**30**	2.1%
6:00	**6:15**		8	3						1					**12**	0.9%
6:15	**6:30**		6	5						1	1				**13**	0.9%
6:30	**6:45**		15	3		1				1					**20**	1.4%
6:45	**7:00**		16	6		1									**23**	1.6%
6:00	**7:00**		45	17		2				3	1				**68**	4.9%
7:00	**7:15**		16	6			3			2					**27**	1.9%
7:15	**7:30**		17	3		1				2					**23**	1.6%
7:30	**7:45**		18	3		1	1								**23**	1.6%
7:45	**8:00**		51	7		1	3								**62**	4.4%
7:00	**8:00**		102	19		3	7			4					**135**	9.7%
8:00	**8:15**		26	3	1										**30**	2.1%
8:15	**8:30**	1	17	9	3	1				3					**34**	2.4%
8:30	**8:45**	1	15	12	1		1			2					**32**	2.3%
8:45	**9:00**	1	13	6			2			1					**23**	1.6%
8:00	**9:00**	3	71	30	5	1	3			6					**119**	8.5%
9:00	**9:15**		8	3						2					**13**	0.9%
9:15	**9:30**		5	6			1			3					**15**	1.1%
9:30	**9:45**		7	3			2								**12**	0.9%
9:45	**10:00**		15	1		1				1					**18**	1.3%
9:00	**10:00**		35	13		1	3			6					**58**	4.2%
10:00	**10:15**		8			1	1			1					**11**	0.8%
10:15	**10:30**		9	4			2			1					**16**	1.1%
10:30	**10:45**		19	4											**23**	1.6%
10:45	**11:00**		15	5		1	1			2					**24**	1.7%
10:00	**11:00**		51	13		2	4			4					**74**	5.3%
11:00	**11:15**		6	4			2		2	1					**15**	1.1%
11:15	**11:30**		14	4											**18**	1.3%
11:30	**11:45**		2	5			1								**8**	0.6%
11:45	**12:00**		12	2			1			2					**17**	1.2%
11:00	**12:00**		34	15			4		2	3					**58**	4.2%

12:00	**12:15**		16	6						2	1			**25**	1.8%
12:15	**12:30**		2	7			2			1				**12**	0.9%
12:30	**12:45**		6	6			1			1				**14**	1.0%
12:45	**13:00**		13	1		1	2		1					**18**	1.3%
12:00	**13:00**		37	20		1	5		1	4	1			**69**	4.9%
13:00	**13:15**		12	2	1	1	1				1			**18**	1.3%
13:15	**13:30**		8	5	1									**14**	1.0%
13:30	**13:45**	1	15	4			2			2				**24**	1.7%
13:45	**14:00**		8	2		2				1				**13**	0.9%
13:00	**14:00**	1	43	13	2	3	3			3	1			**69**	4.9%
14:00	**14:15**		7	8			1			1				**17**	1.2%
14:15	**14:30**		11	2		1	2		1	1				**18**	1.3%
14:30	**14:45**	1	36	6										**43**	3.1%
14:45	**15:00**		19	4	2		2		1	1	1			**30**	2.1%
14:00	**15:00**	1	73	20	2	1	5		2	3	1			**108**	7.7%
15:00	**15:15**		19	2	1	1	3		1	1	1			**29**	2.1%
15:15	**15:30**		37	5			1			1				**44**	3.1%
15:30	**15:45**		20	4	2		1		1					**28**	2.0%
15:45	**16:00**		21	2			3							**26**	1.9%
15:00	**16:00**		97	13	3	1	8		2	2	1			**127**	9.1%
16:00	**16:15**		32	3			1							**36**	2.6%
16:15	**16:30**		12	5	1	1				1				**20**	1.4%
16:30	**16:45**		25	7			2		1					**35**	2.5%
16:45	**17:00**		7	4			1							**12**	0.9%
16:00	**17:00**		76	19	1	1	4		1	1				**103**	7.4%
17:00	**17:15**		10	3		1				1				**15**	1.1%
17:15	**17:30**		14	3		2								**19**	1.4%
17:30	**17:45**		17	4		2								**23**	1.6%
17:45	**18:00**	2	10	4		1				1				**18**	1.3%
17:00	**18:00**	2	51	14		6				2				**75**	5.4%
18:00	**18:15**		9	2									1	**12**	0.9%
18:15	**18:30**		9	3					1					**13**	0.9%
18:30	**18:45**		11	1										**12**	0.9%
18:45	**19:00**		8	3										**11**	0.8%
18:00	**19:00**		37	9					1				1	**48**	3.4%
19:00	**19:15**		14	1						2				**17**	1.2%
19:15	**19:30**		11	1		1								**13**	0.9%
19:30	**19:45**		9	1										**10**	0.7%
19:45	**20:00**		9	3										**12**	0.9%
19:00	**20:00**		43	6		1				2				**52**	3.7%
20:00	**20:15**		11	3		1				1				**16**	1.1%
20:15	**20:30**		5	1			1							**7**	0.5%
20:30	**20:45**		8	1					1					**10**	0.7%
20:45	**21:00**	1	2	1						1	1			**6**	0.4%
20:00	**21:00**	1	26	6		1	1		1	2	1			**39**	2.8%
21:00	**21:15**		8							1				**9**	0.6%
21:15	**21:30**		3	1		1				2	1			**8**	0.6%
21:30	**21:45**		7	1										**8**	0.6%
21:45	**22:00**		5	2										**7**	0.5%
21:00	**22:00**		23	4		1				3	1			**32**	2.3%
22:00	**22:15**		9											**9**	0.6%
22:15	**22:30**		4	1										**5**	0.4%
22:30	**22:45**		1											**1**	0.1%
22:45	**23:00**		3	1										**4**	0.3%
22:00	**23:00**		17	2										**19**	1.4%
23:00	**23:15**		3											**3**	0.2%
23:15	**23:30**		1											**1**	0.1%
23:30	**23:45**		5	1						1				**7**	0.5%
23:45	**OO:OO**		39	4										**43**	3.1%
23:00	**OO:OO**		48	5						1				**54**	3.9%
Total		**8**	**981**	**250**	**13**	**26**	**47**		**10**	**54**	**7**		**1**	**1397**	
		0.6%	70.2%	17.9%	0.9%	1.9%	3.4%		0.7%	3.9%	0.5%		0.1%		
AM PEAK		**1**	**51**	**12**	**3**	**1**	**3**		**2**	**3**	**1**			**62**	
period		8:15	7:45	8:30	8:15	5:45	7:00		11:00	8:15	6:15			7:45	
% of class		12.5%	5.2%	4.8%	23.1%	3.8%	6.4%		20.0%	5.6%	14.3%				4.4%
PM PEAK		**2**	**39**	**8**	**2**	**2**	**3**		**1**	**2**	**1**		**1**	**44**	
period		17:45	23:45	14:00	14:45	13:45	15:00		12:45	12:00	12:00		18:00	15:15	
% of class		25.0%	4.0%	3.2%	15.4%	7.7%	6.4%		10.0%	3.7%	14.3%		100.0%		3.1%

Report-1.4

Location : **CW22-48EW** **FIRST LINE - EAST OF WELLINGTON RD 7**

Direction : **West** Road :

Dates : **05/18/2022**

Classes ---------->		Class-1	Class-2	Class-3	Class-4	Class-5	Class-6	Class-7	Class-8	Class-9	Class-10	Class-11	Class-12	Class-13	Total	
OO:OO	**0:15**		24	4						2					**30**	2.1%
0:15	**0:30**		14	1						1					**16**	1.1%
0:30	**0:45**		28	2											**30**	2.1%
0:45	**1:00**		1												**1**	0.1%
OO:OO	**1:00**		67	7						3					**77**	5.3%
1:00	**1:15**		3												**3**	0.2%
1:15	**1:30**		1												**1**	0.1%
1:30	**1:45**															
1:45	**2:00**									1					**1**	0.1%
1:00	**2:00**		4							1					**5**	0.3%
2:00	**2:15**															
2:15	**2:30**															
2:30	**2:45**															
2:45	**3:00**		2												**2**	0.1%
2:00	**3:00**		2												**2**	0.1%
3:00	**3:15**															
3:15	**3:30**															
3:30	**3:45**									1					**1**	0.1%
3:45	**4:00**			1											**1**	0.1%
3:00	**4:00**			1						1					**2**	0.1%
4:00	**4:15**		1												**1**	0.1%
4:15	**4:30**		2												**2**	0.1%
4:30	**4:45**									1					**1**	0.1%
4:45	**5:00**		1												**1**	0.1%
4:00	**5:00**		4							1					**5**	0.3%
5:00	**5:15**		1	3											**4**	0.3%
5:15	**5:30**		6	2											**8**	0.6%
5:30	**5:45**		3	2											**5**	0.3%
5:45	**6:00**		7	1		2				5					**15**	1.0%
5:00	**6:00**		17	8		2				5					**32**	2.2%
6:00	**6:15**		8	5						1					**14**	1.0%
6:15	**6:30**		6	4						1					**11**	0.8%
6:30	**6:45**		7	3						2					**12**	0.8%
6:45	**7:00**		10	6		2									**18**	1.2%
6:00	**7:00**		31	18		2				4					**55**	3.8%
7:00	**7:15**		22	4		1	2				1				**30**	2.1%
7:15	**7:30**		15	3			1		1	2				1	**23**	1.6%
7:30	**7:45**		21	8	1	3				1					**34**	2.3%
7:45	**8:00**		46	4	1	1	1								**53**	3.7%
7:00	**8:00**		104	19	2	5	4		1	3	1			1	**140**	9.6%
8:00	**8:15**		28	7		1	2			1					**39**	2.7%
8:15	**8:30**	1	21	3	2					1					**28**	1.9%
8:30	**8:45**	1	18	9	3	1	2								**34**	2.3%
8:45	**9:00**		10	9		1	4			2					**26**	1.8%
8:00	**9:00**	2	77	28	5	3	8			4					**127**	8.7%
9:00	**9:15**		3	6		1				1					**11**	0.8%
9:15	**9:30**		9	3	1		1			4					**18**	1.2%
9:30	**9:45**		13	3			1								**17**	1.2%
9:45	**10:00**	1	12	4		1	2								**20**	1.4%
9:00	**10:00**	1	37	16	1	2	4			5					**66**	4.5%
10:00	**10:15**		8	4	1					1					**14**	1.0%
10:15	**10:30**		6	4			1			1					**12**	0.8%
10:30	**10:45**		10	6			2			1					**19**	1.3%
10:45	**11:00**		16	3	1										**20**	1.4%
10:00	**11:00**		40	17	2		3			3					**65**	4.5%
11:00	**11:15**		9	4	1	2	1								**17**	1.2%
11:15	**11:30**		16	3			2			1	1				**23**	1.6%
11:30	**11:45**		10	3											**13**	0.9%
11:45	**12:00**		14	7	1		2			1					**25**	1.7%
11:00	**12:00**		49	17	2	2	5			2	1				**78**	5.4%

| | | |

Report-1.5

Location : **CW22-48EW** **FIRST LINE - EAST OF WELLINGTON RD 7**
Direction : **East + West** Road :
Dates : **05/17/2022**

Classes ---------->		Class-1	Class-2	Class-3	Class-4	Class-5	Class-6	Class-7	Class-8	Class-9	Class-10	Class-11	Class-12	Class-13	Total	
OO:OO	**0:15**		25	1											**26**	0.9%
0:15	**0:30**		10	1						1					**12**	0.4%
0:30	**0:45**		9	5											**14**	0.5%
0:45	**1:00**		3							2					**5**	0.2%
OO:OO	**1:00**		47	7						3					**57**	2.0%
1:00	**1:15**		1												**1**	0.0%
1:15	**1:30**		1												**1**	0.0%
1:30	**1:45**		2			1				1					**4**	0.1%
1:45	**2:00**		1												**1**	0.0%
1:00	**2:00**		5			1				1					**7**	0.2%
2:00	**2:15**		1												**1**	0.0%
2:15	**2:30**															
2:30	**2:45**									1					**1**	0.0%
2:45	**3:00**															
2:00	**3:00**		1							1					**2**	0.1%
3:00	**3:15**		1												**1**	0.0%
3:15	**3:30**		3							1					**4**	0.1%
3:30	**3:45**									1					**1**	0.0%
3:45	**4:00**		1	1											**2**	0.1%
3:00	**4:00**		5	1						2					**8**	0.3%
4:00	**4:15**		1												**1**	0.0%
4:15	**4:30**		1												**1**	0.0%
4:30	**4:45**		3												**3**	0.1%
4:45	**5:00**		2	1						1					**4**	0.1%
4:00	**5:00**		7	1						1					**9**	0.3%
5:00	**5:15**		5	1						4				1	**11**	0.4%
5:15	**5:30**		15	4						1					**20**	0.7%
5:30	**5:45**		30	4											**34**	1.2%
5:45	**6:00**		22	5		1				2					**30**	1.0%
5:00	**6:00**		72	14		1				7				1	**95**	3.3%
6:00	**6:15**		16	3	1		1			1					**22**	0.8%
6:15	**6:30**		38	6					1	1	1				**47**	1.6%
6:30	**6:45**		28	6		2				2					**38**	1.3%
6:45	**7:00**		27	13		4				1				1	**46**	1.6%
6:00	**7:00**		109	28	1	6	1		1	5	1			1	**153**	5.3%
7:00	**7:15**		33	11	1	1	3			3					**52**	1.8%
7:15	**7:30**		24	7		2				2					**35**	1.2%
7:30	**7:45**	1	33	7	1	3	1		1	1					**48**	1.7%
7:45	**8:00**		68	13	1	2	3		1	1					**89**	3.1%
7:00	**8:00**	1	158	38	3	8	7		2	7					**224**	7.7%
8:00	**8:15**		35	8	1	3				1					**48**	1.7%
8:15	**8:30**	1	23	14	3	2	1			8					**52**	1.8%
8:30	**8:45**	1	19	15	2	1	1			2					**41**	1.4%
8:45	**9:00**	1	25	11	1		2			3					**43**	1.5%
8:00	**9:00**	3	102	48	7	6	4			14					**184**	6.4%
9:00	**9:15**		16	12			1			3	1				**33**	1.1%
9:15	**9:30**		11	14	1		2			3					**31**	1.1%
9:30	**9:45**		15	4		1	2								**22**	0.8%
9:45	**10:00**		23	5		2			1	1					**32**	1.1%
9:00	**10:00**		65	35	1	3	5		1	7	1				**118**	4.1%
10:00	**10:15**		17	4		1	1			2					**25**	0.9%
10:15	**10:30**		15	11			2			4					**32**	1.1%
10:30	**10:45**		23	7	1	2									**33**	1.1%
10:45	**11:00**		23	9		2	1		1	3					**39**	1.3%
10:00	**11:00**		78	31	1	5	4		1	9					**129**	4.5%
11:00	**11:15**		13	11		1	3		3	1					**32**	1.1%
11:15	**11:30**		21	8						2					**31**	1.1%
11:30	**11:45**		8	7			2			1					**18**	0.6%
11:45	**12:00**		18	7	1		1			4	1				**32**	1.1%
11:00	**12:00**		60	33	1	1	6		3	8	1				**113**	3.9%

12:00	**12:15**	1	22	8		1				3	1			**36**	1.2%
12:15	**12:30**		13	11		3	2			2			1	**32**	1.1%
12:30	**12:45**		16	8		1	1			2				**28**	1.0%
12:45	**13:00**		25	1		1	2		1					**30**	1.0%
12:00	**13:00**	1	76	28		6	5		1	7	1		1	**126**	4.3%
13:00	**13:15**		20	9	1	1	1		1		1			**34**	1.2%
13:15	**13:30**		22	13	1	1			1	2				**40**	1.4%
13:30	**13:45**	2	32	8		1	2			3				**48**	1.7%
13:45	**14:00**		18	6		4				1				**29**	1.0%
13:00	**14:00**	2	92	36	2	7	3		2	6	1			**151**	5.2%
14:00	**14:15**	2	20	12	1	1	1			1				**38**	1.3%
14:15	**14:30**		24	7		1	2		1	4				**39**	1.3%
14:30	**14:45**	1	63	15										**79**	2.7%
14:45	**15:00**		63	9	3		3		1	3	1			**83**	2.9%
14:00	**15:00**	3	170	43	4	2	6		2	8	1			**239**	8.2%
15:00	**15:15**		51	12	1	2	3		1	1	1			**72**	2.5%
15:15	**15:30**		84	8			2			1				**95**	3.3%
15:30	**15:45**		51	12	4	1	1		1					**70**	2.4%
15:45	**16:00**		43	9	1		3				1			**57**	2.0%
15:00	**16:00**		229	41	6	3	9		2	2	2			**294**	10.1%
16:00	**16:15**		49	10			1			1				**61**	2.1%
16:15	**16:30**	1	34	12	1	3				1				**52**	1.8%
16:30	**16:45**		45	13		1	2		1	1				**63**	2.2%
16:45	**17:00**		32	11	1	1	1			1				**47**	1.6%
16:00	**17:00**	1	160	46	2	5	4		1	4				**223**	7.7%
17:00	**17:15**		29	12		1				1				**43**	1.5%
17:15	**17:30**		39	12		4	1		1	1				**58**	2.0%
17:30	**17:45**		39	11		3								**53**	1.8%
17:45	**18:00**	2	19	9		1				1				**32**	1.1%
17:00	**18:00**	2	126	44		9	1		1	3				**186**	6.4%
18:00	**18:15**		30	7									1	**38**	1.3%
18:15	**18:30**		18	8		2			2	1				**31**	1.1%
18:30	**18:45**		28	8		1								**37**	1.3%
18:45	**19:00**		27	7						1				**35**	1.2%
18:00	**19:00**		103	30		3			2	2			1	**141**	4.9%
19:00	**19:15**		22	4		2				3				**31**	1.1%
19:15	**19:30**		24	5		2				1				**32**	1.1%
19:30	**19:45**		18	7		3								**28**	1.0%
19:45	**20:00**		21	5						1				**27**	0.9%
19:00	**20:00**		85	21		7				5				**118**	4.1%
20:00	**20:15**		27	6		1				2				**36**	1.2%
20:15	**20:30**	1	13	5			1			2				**22**	0.8%
20:30	**20:45**		18	2					2	2			2	**26**	0.9%
20:45	**21:00**	1	9	3						1	2			**16**	0.6%
20:00	**21:00**	2	67	16		1	1		2	7	2		2	**100**	3.5%
21:00	**21:15**		15	3						1				**19**	0.7%
21:15	**21:30**		6	3		1				2	1			**13**	0.4%
21:30	**21:45**		14	2						1				**17**	0.6%
21:45	**22:00**		11	3		1								**15**	0.5%
21:00	**22:00**		46	11		2				4	1			**64**	2.2%
22:00	**22:15**	1	20	1										**22**	0.8%
22:15	**22:30**	1	15	1										**17**	0.6%
22:30	**22:45**	1	12			1	1							**15**	0.5%
22:45	**23:00**		20	1										**21**	0.7%
22:00	**23:00**	3	67	3		1	1							**75**	2.6%
23:00	**23:15**		14	1						1				**16**	0.6%
23:15	**23:30**		2	2						1				**5**	0.2%
23:30	**23:45**		8	1						1				**10**	0.3%
23:45	**OO:OO**		43	6						1				**50**	1.7%
23:00	**OO:OO**		67	10						4				**81**	2.8%
Total		**18**	**1997**	**565**	**28**	**77**	**57**		**21**	**117**	**11**		**6**	**2897**	
		0.6%	68.9%	19.5%	1.0%	2.7%	2.0%		0.7%	4.0%	0.4%		0.2%		
AM PEAK		**1**	**68**	**15**	**3**	**4**	**3**		**3**	**8**	**1**		**1**	**89**	
period		7:30	7:45	8:30	8:15	6:45	7:00		11:00	8:15	6:15		5:00	7:45	
% of class		5.6%	3.4%	2.7%	10.7%	5.2%	5.3%		14.3%	6.8%	9.1%		16.7%		3.1%
PM PEAK		**2**	**84**	**15**	**4**	**4**	**3**		**2**	**4**	**2**		**2**	**95**	
period		13:30	15:15	14:30	15:30	13:45	14:45		18:15	14:15	20:45		20:30	15:15	
% of class		11.1%	4.2%	2.7%	14.3%	5.2%	5.3%		9.5%	3.4%	18.2%		33.3%		3.3%

Report-1.6

Location : **CW22-48EW** **FIRST LINE - EAST OF WELLINGTON RD 7**
Direction : **East + West** Road :
Dates : **05/18/2022**

Classes ---------->		Class-1	Class-2	Class-3	Class-4	Class-5	Class-6	Class-7	Class-8	Class-9	Class-10	Class-11	Class-12	Class-13	Total	
OO:OO	**0:15**	1	27	4			1			2					**35**	1.2%
0:15	**0:30**		16	1						1					**18**	0.6%
0:30	**0:45**		30	2											**32**	1.1%
0:45	**1:00**		1												**1**	0.0%
OO:OO	**1:00**	1	74	7			1			3					**86**	2.9%
1:00	**1:15**	1	3				1								**5**	0.2%
1:15	**1:30**		1							1					**2**	0.1%
1:30	**1:45**															
1:45	**2:00**									1					**1**	0.0%
1:00	**2:00**	1	4				1			2					**8**	0.3%
2:00	**2:15**															
2:15	**2:30**		1	1											**2**	0.1%
2:30	**2:45**															
2:45	**3:00**		3												**3**	0.1%
2:00	**3:00**		4	1											**5**	0.2%
3:00	**3:15**															
3:15	**3:30**									1					**1**	0.0%
3:30	**3:45**		1							1					**2**	0.1%
3:45	**4:00**			1											**1**	0.0%
3:00	**4:00**		1	1						2					**4**	0.1%
4:00	**4:15**		2												**2**	0.1%
4:15	**4:30**		2							2					**4**	0.1%
4:30	**4:45**		1							1					**2**	0.1%
4:45	**5:00**		2	1										1	**4**	0.1%
4:00	**5:00**		7	1						3				1	**12**	0.4%
5:00	**5:15**		4	3											**7**	0.2%
5:15	**5:30**		11	5						1					**17**	0.6%
5:30	**5:45**		34	2						4					**40**	1.4%
5:45	**6:00**		23	3		3				6					**35**	1.2%
5:00	**6:00**		72	13		3				11					**99**	3.4%
6:00	**6:15**		15	5			1			1					**22**	0.7%
6:15	**6:30**		41	5						2					**48**	1.6%
6:30	**6:45**		19	4						2	1				**26**	0.9%
6:45	**7:00**		19	13		3				1					**36**	1.2%
6:00	**7:00**		94	27		3	1			6	1				**132**	4.5%
7:00	**7:15**		38	10		3	3		1	3	1				**59**	2.0%
7:15	**7:30**	1	24	8		2	1		1	2				1	**40**	1.4%
7:30	**7:45**		40	10	1	6				1					**58**	2.0%
7:45	**8:00**	1	65	11	2	1	1		1	1					**83**	2.8%
7:00	**8:00**	2	167	39	3	12	5		3	7	1			1	**240**	8.1%
8:00	**8:15**	1	33	13		2	2			2					**53**	1.8%
8:15	**8:30**	1	24	8	3	1			1	4					**42**	1.4%
8:30	**8:45**	1	24	14	5	1	4		1						**50**	1.7%
8:45	**9:00**		27	15	1	1	4		2	2					**52**	1.8%
8:00	**9:00**	3	108	50	9	5	10		4	8					**197**	6.7%
9:00	**9:15**	1	15	10		3				4					**33**	1.1%
9:15	**9:30**		17	10	1		1			4					**33**	1.1%
9:30	**9:45**		22	6			2								**30**	1.0%
9:45	**10:00**	1	21	6		3	2			2					**35**	1.2%
9:00	**10:00**	2	75	32	1	6	5			10					**131**	4.4%
10:00	**10:15**		14	8	2	1				1					**26**	0.9%
10:15	**10:30**		13	7	1		1		1	2					**25**	0.8%
10:30	**10:45**		23	10		1	3			1					**38**	1.3%
10:45	**11:00**		26	7	1				1	1					**36**	1.2%
10:00	**11:00**		76	32	4	2	4		2	5					**125**	4.2%
11:00	**11:15**		14	8	2	3	1			1					**29**	1.0%
11:15	**11:30**		26	7		4	3	1		3	1				**45**	1.5%
11:30	**11:45**	1	24	6				1							**32**	1.1%
11:45	**12:00**	1	18	11	1		3			1					**35**	1.2%
11:00	**12:00**	2	82	32	3	7	7	2		5	1				**141**	4.8%

12:00	**12:15**	1	19	17	2	2	3			2				**46**	1.6%
12:15	**12:30**		14	8	1	2			1	3				**29**	1.0%
12:30	**12:45**		26	7		4	2			1				**40**	1.4%
12:45	**13:00**		22	6		4	2			5				**39**	1.3%
12:00	**13:00**	1	81	38	3	12	7		1	11				**154**	5.2%
13:00	**13:15**		21	6		1				5				**33**	1.1%
13:15	**13:30**		23	7	1	1	2							**34**	1.2%
13:30	**13:45**		26	6	1	2	3			2				**40**	1.4%
13:45	**14:00**	1	16	8	1	1	2			1			2	**32**	1.1%
13:00	**14:00**	1	86	27	3	5	7			8			2	**139**	4.7%
14:00	**14:15**		21	18	3				1	2				**45**	1.5%
14:15	**14:30**		39	11		2	2			2	1			**57**	1.9%
14:30	**14:45**		68	13	1					1				**83**	2.8%
14:45	**15:00**		63	11		1	1				1			**77**	2.6%
14:00	**15:00**		191	53	4	3	3		1	5	2			**262**	8.9%
15:00	**15:15**	2	63	11		3	1		1		1			**82**	2.8%
15:15	**15:30**		82	13	1	2	3			1				**102**	3.5%
15:30	**15:45**		43	12	3	2	1		1	2				**64**	2.2%
15:45	**16:00**		42	7	1	2				1	1			**54**	1.8%
15:00	**16:00**	2	230	43	5	9	5		2	4	2			**302**	10.2%
16:00	**16:15**		47	16	1	1	3			2				**70**	2.4%
16:15	**16:30**		36	14	1	2	1		1	2				**57**	1.9%
16:30	**16:45**		27	8			1		1	1				**38**	1.3%
16:45	**17:00**		38	13		1				1				**53**	1.8%
16:00	**17:00**		148	51	2	4	5		2	6				**218**	7.4%
17:00	**17:15**		38	10	1		2		1	1				**53**	1.8%
17:15	**17:30**		29	6		4	3			2				**44**	1.5%
17:30	**17:45**		39	7		1			1	1				**49**	1.7%
17:45	**18:00**		31	10		3			1	2				**47**	1.6%
17:00	**18:00**		137	33	1	8	5		3	6				**193**	6.5%
18:00	**18:15**		31	5		1		1	1				1	**40**	1.4%
18:15	**18:30**		24	5		1								**30**	1.0%
18:30	**18:45**		16	4		1				1				**22**	0.7%
18:45	**19:00**		26	6		1								**33**	1.1%
18:00	**19:00**		97	20		4		1	1	1			1	**125**	4.2%
19:00	**19:15**		22	4						1				**27**	0.9%
19:15	**19:30**		15	1		1				1				**18**	0.6%
19:30	**19:45**	1	15	2		1				3				**22**	0.7%
19:45	**20:00**		21	2						2				**25**	0.8%
19:00	**20:00**	1	73	9		2				7				**92**	3.1%
20:00	**20:15**		22	1						3				**26**	0.9%
20:15	**20:30**		12	1						1				**14**	0.5%
20:30	**20:45**		18	1					1	2				**22**	0.7%
20:45	**21:00**		13	5						1				**19**	0.6%
20:00	**21:00**		65	8					1	7				**81**	2.7%
21:00	**21:15**		8	5	1					2				**16**	0.5%
21:15	**21:30**		13	3					1					**17**	0.6%
21:30	**21:45**		8	2							1			**11**	0.4%
21:45	**22:00**		10											**10**	0.3%
21:00	**22:00**		39	10	1				1	2	1			**54**	1.8%
22:00	**22:15**	1	12	1										**14**	0.5%
22:15	**22:30**		13			1								**14**	0.5%
22:30	**22:45**		19	1										**20**	0.7%
22:45	**23:00**		15							2			1	**18**	0.6%
22:00	**23:00**	1	59	2		1				2			1	**66**	2.2%
23:00	**23:15**		13	2						2				**17**	0.6%
23:15	**23:30**		6	2						1				**9**	0.3%
23:30	**23:45**		13	4						1				**18**	0.6%
23:45	**OO:OO**		39	5	1									**45**	1.5%
23:00	**OO:OO**		71	13	1					4				**89**	3.0%
Total		**17**	**2041**	**542**	**40**	**86**	**66**	**3**	**21**	**125**	**8**		**6**	**2955**	
		0.6%	69.1%	18.3%	1.4%	2.9%	2.2%	0.1%	0.7%	4.2%	0.3%		0.2%		
AM PEAK		**1**	**65**	**15**	**5**	**6**	**4**	**1**	**2**	**6**	**1**		**1**	**83**	
period		OO:OO	7:45	8:45	8:30	7:30	8:30	11:15	8:45	5:45	6:30		4:45	7:45	
% of class		5.9%	3.2%	2.8%	12.5%	7.0%	6.1%	33.3%	9.5%	4.8%	12.5%		16.7%		2.8%
PM PEAK		**2**	**82**	**18**	**3**	**4**	**3**	**1**	**1**	**5**	**1**		**2**	**102**	
period		15:00	15:15	14:00	14:00	12:30	12:00	18:00	12:15	12:45	14:15		13:45	15:15	
% of class		11.8%	4.0%	3.3%	7.5%	4.7%	4.5%	33.3%	4.8%	4.0%	12.5%		33.3%		3.5%

Report-2.1		Location :	CW22-48EW	FIRST LINE - EAST OF WELLINGTON RD 7															
		Direction :	East	Road :															
		Dates :	05/17/2022																
			11	21	31	41	51	61	71	81	91	101	111	121	131			Pace	Number
Speeds,km/h ------->			11	21	31	41	51	61	71	81	91	101	111	121	131	140	Total	Speed	in Pace
00:00	0:15						1		1								2	42.0-62.0	2
0:15	0:30					1		1									2	35.9-55.9	2
0:30	0:45							1		1							2	51.6-71.6	2
0:45	1:00						1				1						2	28.1-48.1	1
00:00	1:00					1	2	2	1	1	1						2	51.6-71.6	
1:00	1:15									1							1	53.5-73.5	1
1:15	1:30					1											1	19.1-39.1	1
1:30	1:45								2								2	47.0-67.0	2
1:45	2:00																		
1:00	2:00					1			2	1							1	53.5-73.5	
2:00	2:15								1								1	47.9-67.9	1
2:15	2:30																		
2:30	2:45					1											1	17.9-37.9	1
2:45	3:00																		
2:00	3:00					1			1								1	47.9-67.9	
3:00	3:15																		
3:15	3:30						1	1									2	31.7-51.7	2
3:30	3:45																		
3:45	4:00							1									1	32.0-52.0	1
3:00	4:00						1	2									1	32.0-52.0	
4:00	4:15					1											1	20.9-40.9	1
4:15	4:30								1								1	47.2-67.2	1
4:30	4:45							1									1	38.0-58.0	1
4:45	5:00						2		1								3	26.6-46.6	2
4:00	5:00					1	2	1	2								1	47.2-67.2	
5:00	5:15					2	3	1	1								7	26.8-46.8	5
5:15	5:30					1	2	5		1							9	38.8-58.8	8
5:30	5:45						15	12	2	1	1						31	38.7-58.7	27
5:45	6:00						2	7	9								18	50.2-70.2	16
5:00	6:00					3	22	25	12	2	1						18	50.2-70.2	
6:00	6:15						2	6	2								10	42.4-62.4	9
6:15	6:30						12	18	4								34	44.2-64.2	32
6:30	6:45						5	5	7	1							18	47.7-67.7	15
6:45	7:00						4	11	7	1							23	44.5-64.5	18
6:00	7:00						23	40	20	2							18	47.7-67.7	
7:00	7:15						3	18	4								25	45.0-65.0	24
7:15	7:30					1	2	4	4	1							12	46.5-66.5	10
7:30	7:45				1	5	6	9	3	1							25	40.6-60.6	17
7:45	8:00					2	6	10	8	1							27	42.4-62.4	20
7:00	8:00				1	8	17	41	19	3							12	46.5-66.5	
8:00	8:15						1	6	9	1	1						18	51.4-71.4	16
8:15	8:30					1	12	2	1	2							18	36.4-56.4	15
8:30	8:45					1	4	2	1	1							9	43.6-63.6	7
8:45	9:00					1	4	10	5								20	46.1-66.1	18
8:00	9:00					3	21	20	16	4	1						18	51.4-71.4	
9:00	9:15					3	5	4	7	1							20	38.2-58.2	12
9:15	9:30					1	5	8	2								16	41.0-61.0	13
9:30	9:45					1	3	3	2	1							10	36.1-56.1	7
9:45	10:00						4	4	5		1						14	47.8-67.8	9
9:00	10:00					5	17	19	16	2	1						14	47.8-67.8	
10:00	10:15						6	6	1	1							14	42.8-62.8	13
10:15	10:30					2	4	6	3	1							16	46.7-66.7	13
10:30	10:45						4	2	3	1							10	41.3-61.3	7
10:45	11:00					1	4	4	6								15	44.3-64.3	12
10:00	11:00					3	18	18	13	3							16	46.7-66.7	
11:00	11:15					1	2	8	6								17	49.5-69.5	15
11:15	11:30						3	4	6								13	47.0-67.0	11
11:30	11:45						4	2	3	1							10	41.5-61.5	7
11:45	12:00					1	8	5	1								15	41.6-61.6	14
11:00	12:00					2	17	19	16	1							17	49.5-69.5	

12:00	**12:15**			2			7	1	1				**11**	41.5-61.5	8
12:15	**12:30**					5	12	2		1			**20**	40.5-60.5	17
12:30	**12:45**				2	2	7	3					**14**	45.4-65.4	12
12:45	**13:00**				1	3	7	1					**12**	39.4-59.4	11
12:00	**13:00**			2	3	10	33	7	1	1			**14**	45.4-65.4	
13:00	**13:15**					3	7	6					**16**	48.3-68.3	15
13:15	**13:30**				1	4	14	6	1				**26**	45.7-65.7	21
13:30	**13:45**					2	12	6	4				**24**	50.7-70.7	18
13:45	**14:00**				1	1	7	4	3				**16**	52.8-72.8	13
13:00	**14:00**				2	10	40	22	8				**16**	52.8-72.8	
14:00	**14:15**				2	6	6	7					**21**	46.7-66.7	16
14:15	**14:30**			1	1	6	6	6	1				**21**	46.9-66.9	18
14:30	**14:45**				5	8	15	8					**36**	44.5-64.5	29
14:45	**15:00**				3	14	26	8	2				**53**	39.1-59.1	41
14:00	**15:00**			1	11	34	53	29	3				**21**	46.9-66.9	
15:00	**15:15**			1		15	13	12	1	1			**43**	43.3-63.3	35
15:15	**15:30**				3	13	20	13	2				**51**	46.4-66.4	42
15:30	**15:45**					9	25	6	2				**42**	41.1-61.1	35
15:45	**16:00**				3	7	7	12	1		1		**31**	50.1-70.1	22
15:00	**16:00**			1	6	44	65	43	6	1	1		**31**	50.1-70.1	
16:00	**16:15**					5	6	11	2		1		**25**	48.5-68.5	18
16:15	**16:30**				2		17	11	2				**32**	49.9-69.9	28
16:30	**16:45**					4	9	11	3	1			**28**	47.8-67.8	21
16:45	**17:00**				2	5	8	14	4	2			**35**	51.7-71.7	24
16:00	**17:00**				4	14	40	47	11	3	1		**35**	51.7-71.7	
17:00	**17:15**				1	3	4	17	3				**28**	50.6-70.6	22
17:15	**17:30**					8	12	13	6				**39**	52.8-72.8	30
17:30	**17:45**					3	10	14	3				**30**	51.1-71.1	25
17:45	**18:00**						6	4	4				**14**	55.2-75.2	12
17:00	**18:00**				1	14	32	48	16				**14**	55.2-75.2	
18:00	**18:15**					1	12	12	1				**26**	49.0-69.0	24
18:15	**18:30**				1	2	3	9	2	1			**18**	52.8-72.8	13
18:30	**18:45**						12	12	1				**25**	52.0-72.0	25
18:45	**19:00**			1	1	2	9	7	3		1		**24**	48.7-68.7	18
18:00	**19:00**			1	2	5	36	40	7	1	1		**18**	52.8-72.8	
19:00	**19:15**				2	1	2	8	1				**14**	53.3-73.3	11
19:15	**19:30**					1	9	7	2				**19**	51.3-71.3	17
19:30	**19:45**						7	7	2	1	1		**18**	50.8-70.8	14
19:45	**20:00**			1		1	7	5	1				**15**	45.3-65.3	13
19:00	**20:00**			1	2	3	25	27	6	1	1		**14**	53.3-73.3	
20:00	**20:15**				1	7	6	6					**20**	41.4-61.4	14
20:15	**20:30**				3	5	5	1	1				**15**	41.6-61.6	11
20:30	**20:45**					5	8	2	1				**16**	38.6-58.6	13
20:45	**21:00**				1	4	4	1					**10**	38.8-58.8	9
20:00	**21:00**				5	21	23	10	2				**15**	41.6-61.6	
21:00	**21:15**				1		4	5					**10**	50.1-70.1	9
21:15	**21:30**					2	1	2					**5**	47.9-67.9	4
21:30	**21:45**				1	1	3	2	2				**9**	46.7-66.7	6
21:45	**22:00**					1	4	2	1				**8**	43.6-63.6	7
21:00	**22:00**				2	4	12	11	3				**10**	50.1-70.1	
22:00	**22:15**					1	7	5					**13**	45.2-65.2	13
22:15	**22:30**					3	5	3	1				**12**	45.9-65.9	10
22:30	**22:45**				3	4	5	2					**14**	41.2-61.2	10
22:45	**23:00**					6	6	4	1				**17**	40.2-60.2	12
22:00	**23:00**				3	14	23	14	2				**12**	45.9-65.9	
23:00	**23:15**				1	3	4	2	2	1			**13**	37.9-57.9	8
23:15	**23:30**					2	2						**4**	40.2-60.2	4
23:30	**23:45**					2			1				**3**	30.1-50.1	2
23:45	**OO:OO**					3	1	2	1				**7**	36.0-56.0	4
23:00	**OO:OO**				1	10	7	4	4	1			**4**	40.2-60.2	
Total				**7**	**70**	**323**	**576**	**420**	**88**	**12**	**4**		**1500**		
				0.5%	4.7%	21.5%	38.4%	28.0%	5.9%	0.8%	0.3%				
AM PEAK				**1**	**5**	**15**	**18**	**9**	**2**	**1**			**34**		
period				7:30	7:30	5:30	6:15	5:45	8:15	0:45			6:15		
% of class				14.3%	7.1%	4.6%	3.1%	2.1%	2.3%	8.3%				2.3%	
PM PEAK				**2**	**5**	**15**	**26**	**17**	**6**	**2**	**1**		**53**		
period				12:00	14:30	15:00	14:45	17:00	17:15	16:45	15:45		14:45		
% of class				28.6%	7.1%	4.6%	4.5%	4.0%	6.8%	16.7%	25.0%			3.5%	

15% Percentile :	**46**	KPH
50% Percentile :	**57**	KPH
85% Percentile :	**68**	KPH
95% Percentile :	**74**	KPH

20 KPH Pace Speed:	**47.9-67.9**	KPH
Number in Pace:	**1030**	
Percent in Pace:	**68.7**	%
Number of Vehicles >40 KPH:	**1430**	
Percent of Vehicles >40 KPH:	**95.3**	%
Mean Speed(average):	**57**	KPH

Report-2.2

Location : **CW22-48EW** **FIRST LINE - EAST OF WELLINGTON RD 7**
Direction : **East** Road :
Dates : **05/18/2022**

Speeds,km/h ------->		11	21	31	41	51	61	71	81	91	101	111	121	131	140	Total	Pace Speed	Number in Pace
OO:OO	**0:15**				1	1	2	1								**5**	38.6-58.6	4
0:15	**0:30**							2								**2**	43.5-63.5	2
0:30	**0:45**					1		1								**2**	42.7-62.7	2
0:45	**1:00**																	
OO:OO	**1:00**				1	2	2	4								**2**	43.5-63.5	
1:00	**1:15**		1	1												**2**	3.1-23.1	2
1:15	**1:30**					1										**1**	23.5-43.5	1
1:30	**1:45**																	
1:45	**2:00**																	
1:00	**2:00**		1	1		1										**2**	3.1-23.1	
2:00	**2:15**																	
2:15	**2:30**					1	1									**2**	36.6-56.6	2
2:30	**2:45**																	
2:45	**3:00**					1										**1**	26.7-46.7	1
2:00	**3:00**					2	1									**2**	36.6-56.6	
3:00	**3:15**																	
3:15	**3:30**					1										**1**	27.9-47.9	1
3:30	**3:45**						1									**1**	38.1-58.1	1
3:45	**4:00**																	
3:00	**4:00**					1	1									**1**	38.1-58.1	
4:00	**4:15**					1										**1**	21.7-41.7	1
4:15	**4:30**				1	1										**2**	26.2-46.2	2
4:30	**4:45**							1								**1**	41.8-61.8	1
4:45	**5:00**					2		1								**3**	24.2-44.2	2
4:00	**5:00**				1	4		2								**1**	41.8-61.8	
5:00	**5:15**					1		2								**3**	43.2-63.2	3
5:15	**5:30**				1	7	1									**9**	33.1-53.1	9
5:30	**5:45**				6	12	10	6	1							**35**	34.1-54.1	24
5:45	**6:00**					1	9	8	2							**20**	52.4-72.4	18
5:00	**6:00**				7	21	20	16	3							**20**	52.4-72.4	
6:00	**6:15**					2	5	1								**8**	41.5-61.5	8
6:15	**6:30**					13	14	8	2							**37**	45.3-65.3	29
6:30	**6:45**					3	7	3	1							**14**	43.6-63.6	12
6:45	**7:00**					6	7	5								**18**	42.7-62.7	15
6:00	**7:00**					24	33	17	3							**37**	45.3-65.3	
7:00	**7:15**				1	10	12	5	1							**29**	42.6-62.6	25
7:15	**7:30**		1	1		3	3	8	1							**17**	50.8-70.8	11
7:30	**7:45**				2	3	10	8	1							**24**	45.9-65.9	20
7:45	**8:00**				1	9	12	7	1							**30**	43.4-63.4	23
7:00	**8:00**		1	1	4	25	37	28	4							**17**	50.8-70.8	
8:00	**8:15**				2	1	2	6	3							**14**	54.7-74.7	10
8:15	**8:30**					5	4	4	1							**14**	44.1-64.1	11
8:30	**8:45**				1	2	7	5	1							**16**	45.0-65.0	14
8:45	**9:00**					6	9	8	3							**26**	47.3-67.3	20
8:00	**9:00**				3	14	22	23	8							**14**	54.7-74.7	
9:00	**9:15**				3	3	8	6	2							**22**	44.3-64.3	14
9:15	**9:30**					4	8	2	1							**15**	43.7-63.7	14
9:30	**9:45**					2	8	2	1							**13**	40.3-60.3	10
9:45	**10:00**					9		5	1							**15**	41.1-61.1	10
9:00	**10:00**				3	18	24	15	5							**22**	44.3-64.3	
10:00	**10:15**			1		5	3	3								**12**	42.1-62.1	10
10:15	**10:30**				1	6	4	2								**13**	35.9-55.9	10
10:30	**10:45**				4	5	5	5								**19**	38.7-58.7	14
10:45	**11:00**					3	8	5								**16**	47.4-67.4	13
10:00	**11:00**			1	5	19	20	15								**16**	47.4-67.4	
11:00	**11:15**				1	4	1	3	3							**12**	45.2-65.2	7
11:15	**11:30**				1	6	5	9		1						**22**	48.0-68.0	17
11:30	**11:45**			1		8	8	1		1						**19**	38.1-58.1	16
11:45	**12:00**			2		2	2	3	1							**10**	42.6-62.6	6
11:00	**12:00**			3	2	20	16	16	4	2						**22**	48.0-68.0	

12:00	**12:15**							11	11	3	1											**26**	41.8-61.8	23
12:15	**12:30**							2	10	3												**15**	42.7-62.7	13
12:30	**12:45**							5	7	8	1											**21**	47.9-67.9	19
12:45	**13:00**						3	5	5	7	2											**22**	45.9-65.9	13
12:00	**13:00**						3	23	33	21	4											**21**	47.9-67.9	
13:00	**13:15**						1	6	4	6												**17**	39.1-59.1	11
13:15	**13:30**						1	3	9	3												**16**	43.1-63.1	14
13:30	**13:45**						1	3	5	3	5											**17**	56.3-76.3	11
13:45	**14:00**						1	4	6	4	1											**16**	43.3-63.3	13
13:00	**14:00**						4	16	24	16	6											**17**	56.3-76.3	
14:00	**14:15**						2	10	14	4		1										**31**	41.4-61.4	25
14:15	**14:30**			1			3	8	17	4												**33**	42.6-62.6	26
14:30	**14:45**						2	14	17	7												**40**	44.7-64.7	36
14:45	**15:00**						1	12	20	12		2										**47**	46.4-66.4	40
14:00	**15:00**			1			8	44	68	27		3										**47**	46.4-66.4	
15:00	**15:15**			1	2	2	2	12	14	10	3											**44**	45.0-65.0	28
15:15	**15:30**							22	22	9	3											**56**	41.2-61.2	45
15:30	**15:45**							4	11	15	4	1										**35**	51.5-71.5	27
15:45	**16:00**							7	9	9	6											**31**	46.9-66.9	22
15:00	**16:00**			1	2	2	2	45	56	43	16	1										**35**	51.5-71.5	
16:00	**16:15**							7	12	10		1										**30**	46.6-66.6	24
16:15	**16:30**							2	14	9	6											**31**	51.0-71.0	23
16:30	**16:45**							1	9	6	1											**17**	51.8-71.8	16
16:45	**17:00**							4	8	10	4	1										**27**	48.6-68.6	20
16:00	**17:00**							14	43	35	11	2										**17**	51.8-71.8	
17:00	**17:15**							4	9	10	6											**29**	50.0-70.0	19
17:15	**17:30**						1		10	7	5											**23**	51.9-71.9	18
17:30	**17:45**						4	2	8	17	3											**34**	47.9-67.9	27
17:45	**18:00**							1	13	10	3											**27**	53.9-73.9	25
17:00	**18:00**						5	7	40	44	17											**27**	53.9-73.9	
18:00	**18:15**							3	7	8	4											**22**	53.3-73.3	19
18:15	**18:30**							3	5	10	3	2										**23**	51.4-71.4	16
18:30	**18:45**						1		6	5	3	1										**16**	51.9-71.9	12
18:45	**19:00**							1	4	6	5											**16**	54.9-74.9	12
18:00	**19:00**						1	7	22	29	15	3										**16**	54.9-74.9	
19:00	**19:15**							1	10	6												**17**	49.5-69.5	16
19:15	**19:30**							2	4	3	1											**10**	50.1-70.1	9
19:30	**19:45**						1	4	2	7	2					1						**17**	50.1-70.1	9
19:45	**20:00**						1		4	4	2											**11**	55.3-75.3	9
19:00	**20:00**						2	7	20	20	5					1						**11**	55.3-75.3	
20:00	**20:15**							2	5	6	2											**15**	45.6-65.6	12
20:15	**20:30**								4	1	1											**6**	45.9-65.9	5
20:30	**20:45**							2	7	3	1	1										**14**	46.4-66.4	12
20:45	**21:00**							1	4	6	1	2										**14**	49.4-69.4	10
20:00	**21:00**							5	20	16	5	3										**14**	49.4-69.4	
21:00	**21:15**						1	2	2	2												**7**	41.8-61.8	5
21:15	**21:30**						1	2	5	3		1										**12**	47.8-67.8	10
21:30	**21:45**							2	1	1	1											**5**	41.3-61.3	4
21:45	**22:00**							2	3	2												**7**	48.4-68.4	6
21:00	**22:00**						2	8	11	8	1	1										**7**	48.4-68.4	
22:00	**22:15**							5	5	1												**11**	39.4-59.4	10
22:15	**22:30**									6	1											**7**	53.7-73.7	7
22:30	**22:45**							7	7	5												**19**	45.8-65.8	17
22:45	**23:00**						1	5	7	3												**16**	43.7-63.7	14
22:00	**23:00**						1	17	19	15	1											**7**	53.7-73.7	
23:00	**23:15**						2	1	5	5	1											**14**	48.4-68.4	10
23:15	**23:30**							2	1		1											**4**	36.7-56.7	3
23:30	**23:45**							1	6	1												**8**	47.3-67.3	8
23:45	**OO:OO**									1												**1**	42.9-62.9	1
23:00	**OO:OO**						2	4	12	7	2											**14**	48.4-68.4	
Total			**4**	**8**	**56**	**348**	**544**	**417**	**110**	**15**		**1**										**1503**		
			0.3%	0.5%	3.7%	23.2%	36.2%	27.7%	7.3%	1.0%		0.1%												
AM PEAK			**1**	**2**	**6**	**13**	**14**	**9**	**3**	**1**												**37**		
period			1:00	11:45	5:30	6:15	6:15	11:15	8:00	11:15												6:15		
% of class			25.0%	25.0%	10.7%	3.7%	2.6%	2.2%	2.7%	6.7%													2.5%	
PM PEAK			**1**	**2**	**4**	**22**	**22**	**17**	**6**	**2**		**1**										**56**		
period			14:15	15:00	17:30	15:15	15:15	17:30	15:45	14:45		19:30										15:15		
% of class			25.0%	25.0%	7.1%	6.3%	4.0%	4.1%	5.5%	13.3%		100.0%											3.7%	

15% Percentile :	**46**	KPH
50% Percentile :	**57**	KPH
85% Percentile :	**69**	KPH
95% Percentile :	**76**	KPH

20 KPH Pace Speed:	**46.8-66.8**	KPH
Number in Pace:	**1031**	
Percent in Pace:	**68.6**	%
Number of Vehicles >40 KPH:	**1441**	
Percent of Vehicles >40 KPH:	**95.9**	%
Mean Speed(average):	**57**	KPH

Report-2.3

Location : **CW22-48EW** **FIRST LINE - EAST OF WELLINGTON RD 7**

Direction : **West** Road :

Dates : **05/17/2022**

Speeds,km/h ------->		11	21	31	41	51	61	71	81	91	101	111	121	131	140	Total	Pace Speed	Number in Pace
OO:OO	**0:15**				1	7	14	2								**24**	41.1-61.1	22
0:15	**0:30**					2	6	2								**10**	42.2-62.2	9
0:30	**0:45**					2	9	1								**12**	48.1-68.1	12
0:45	**1:00**					1	1	1								**3**	37.7-57.7	2
OO:OO	**1:00**				1	12	30	6								**12**	48.1-68.1	
1:00	**1:15**																	
1:15	**1:30**																	
1:30	**1:45**					1			1							**2**	25.8-45.8	1
1:45	**2:00**						1									**1**	40.7-60.7	1
1:00	**2:00**					1	1		1							**1**	40.7-60.7	
2:00	**2:15**																	
2:15	**2:30**																	
2:30	**2:45**																	
2:45	**3:00**																	
2:00	**3:00**																	
3:00	**3:15**							1								**1**	41.3-61.3	1
3:15	**3:30**						2									**2**	39.4-59.4	2
3:30	**3:45**					1										**1**	25.4-45.4	1
3:45	**4:00**							1								**1**	42.4-62.4	1
3:00	**4:00**					1	2	2								**1**	42.4-62.4	
4:00	**4:15**																	
4:15	**4:30**																	
4:30	**4:45**					1	1									**2**	40.7-60.7	2
4:45	**5:00**									1						**1**	69.9-89.9	1
4:00	**5:00**					1	1			1						**1**	69.9-89.9	
5:00	**5:15**					1		1	1	1						**4**	42.2-62.2	2
5:15	**5:30**					1	4	5	1							**11**	48.5-68.5	9
5:30	**5:45**						1	1	1							**3**	48.3-68.3	2
5:45	**6:00**					2	4	5	1							**12**	51.4-71.4	10
5:00	**6:00**					4	9	12	4	1						**12**	51.4-71.4	
6:00	**6:15**					1	3	7	1							**12**	49.2-69.2	10
6:15	**6:30**				1	2	5	3	2							**13**	50.1-70.1	9
6:30	**6:45**				1	4	6	8	1							**20**	46.3-66.3	16
6:45	**7:00**					3	7	11	1	1						**23**	49.8-69.8	19
6:00	**7:00**				2	10	21	29	5	1						**13**	50.1-70.1	
7:00	**7:15**					8	15	4								**27**	41.6-61.6	25
7:15	**7:30**					6	5	8	4							**23**	43.2-63.2	15
7:30	**7:45**					1	7	12	3							**23**	54.9-74.9	21
7:45	**8:00**				1	14	28	13	6							**62**	44.7-64.7	53
7:00	**8:00**				1	29	55	37	13							**23**	54.9-74.9	
8:00	**8:15**					5	14	9	1	1						**30**	45.9-65.9	26
8:15	**8:30**				2	8	15	9								**34**	46.0-66.0	27
8:30	**8:45**			2	1	11	13	3	2							**32**	40.5-60.5	24
8:45	**9:00**				1	4	13	5								**23**	44.1-64.1	19
8:00	**9:00**			2	4	28	55	26	3	1						**34**	46.0-66.0	
9:00	**9:15**				2	2	6	2	1							**13**	46.9-66.9	9
9:15	**9:30**				1	5	8		1							**15**	39.6-59.6	14
9:30	**9:45**					1	6	5								**12**	47.8-67.8	12
9:45	**10:00**					1	10	5	2							**18**	51.7-71.7	16
9:00	**10:00**				3	9	30	12	4							**18**	51.7-71.7	
10:00	**10:15**					2	5	3		1						**11**	43.2-63.2	10
10:15	**10:30**					5	5	4	2							**16**	44.7-64.7	11
10:30	**10:45**					3	13	6		1						**23**	48.0-68.0	22
10:45	**11:00**					5	12	6	1							**24**	47.0-67.0	22
10:00	**11:00**					15	35	19	3	2						**23**	48.0-68.0	
11:00	**11:15**					2	7	4	2							**15**	46.7-66.7	11
11:15	**11:30**					4	10	4								**18**	43.2-63.2	17
11:30	**11:45**					1	5	2								**8**	47.3-67.3	8
11:45	**12:00**					4	7	6								**17**	49.8-69.8	14
11:00	**12:00**					11	29	16	2							**17**	49.8-69.8	

12:00	**12:15**			2	5	13	4	1					**25**	49.3-69.3	20
12:15	**12:30**				2	4	5	1					**12**	51.7-71.7	10
12:30	**12:45**				4	7	3						**14**	45.0-65.0	13
12:45	**13:00**	1	1	1	9	4	2						**18**	48.0-68.0	14
12:00	**13:00**	1	3	12	33	16	4						**12**	51.7-71.7	
13:00	**13:15**		1	4	11	1		1					**18**	46.0-66.0	16
13:15	**13:30**			3	7	3	1						**14**	41.3-61.3	11
13:30	**13:45**		2	9	8	4		1					**24**	44.5-64.5	19
13:45	**14:00**			1	7	2	2	1					**13**	43.0-63.0	9
13:00	**14:00**		3	17	33	10	3	3					**18**	46.0-66.0	
14:00	**14:15**			8	9								**17**	39.1-59.1	17
14:15	**14:30**		1	5	5	7							**18**	42.6-62.6	13
14:30	**14:45**		1	14	20	7	1						**43**	43.4-63.4	35
14:45	**15:00**			10	12	7	1						**30**	41.5-61.5	23
14:00	**15:00**		2	37	46	21	2						**43**	43.4-63.4	
15:00	**15:15**		2	10	11	4	2						**29**	43.6-63.6	23
15:15	**15:30**		2	11	22	7	1	1					**44**	42.2-62.2	35
15:30	**15:45**		1	5	9	10	3						**28**	47.0-67.0	19
15:45	**16:00**			2	14	8	2						**26**	50.4-70.4	22
15:00	**16:00**		5	28	56	29	8	1					**26**	50.4-70.4	
16:00	**16:15**			10	17	6	2	1					**36**	44.6-64.6	29
16:15	**16:30**		1	4	7	6	1	1					**20**	46.2-66.2	14
16:30	**16:45**		2	2	19	6	3	2	1				**35**	52.7-72.7	26
16:45	**17:00**		1	1	5	4	1						**12**	52.2-72.2	10
16:00	**17:00**		4	17	48	22	7	4	1				**35**	52.7-72.7	
17:00	**17:15**			2	4	7	2						**15**	56.7-76.7	12
17:15	**17:30**				7	9	2		1				**19**	54.0-74.0	17
17:30	**17:45**			4	10	7	1						**23**	49.6-69.6	19
17:45	**18:00**		2	1	8	5	2						**18**	47.5-67.5	13
17:00	**18:00**		2	7	29	28	7		1				**15**	56.7-76.7	
18:00	**18:15**			1	4	5	1	1					**12**	52.8-72.8	10
18:15	**18:30**				4	6	2	1					**13**	52.2-72.2	11
18:30	**18:45**				4	5	2	1					**12**	52.1-72.1	11
18:45	**19:00**		2	1	4	3	1						**11**	48.0-68.0	7
18:00	**19:00**		2	2	16	19	6	3					**12**	52.8-72.8	
19:00	**19:15**		1	2	4	6	3	1					**17**	56.0-76.0	13
19:15	**19:30**				8	2	2	1					**13**	51.5-71.5	11
19:30	**19:45**				4	6							**10**	50.8-70.8	10
19:45	**20:00**				7	3	2						**12**	53.9-73.9	12
19:00	**20:00**		1	2	23	17	7	2					**17**	56.0-76.0	
20:00	**20:15**			4	8	4							**16**	45.3-65.3	15
20:15	**20:30**			2	5								**7**	38.5-58.5	7
20:30	**20:45**			2	7	1							**10**	48.4-68.4	10
20:45	**21:00**			2	1	1	1	1					**6**	41.6-61.6	4
20:00	**21:00**			10	21	6	1	1					**10**	48.4-68.4	
21:00	**21:15**			4	1	4							**9**	38.8-58.8	5
21:15	**21:30**		1	3	3	1							**8**	36.1-56.1	6
21:30	**21:45**			1	1	4	1	1					**8**	49.3-69.3	5
21:45	**22:00**				5		1	1					**7**	39.1-59.1	5
21:00	**22:00**		1	8	10	9	2	2					**8**	49.3-69.3	
22:00	**22:15**				2	6			1				**9**	46.8-66.8	8
22:15	**22:30**				4					1			**5**	39.5-59.5	4
22:30	**22:45**				1								**1**	32.1-52.1	1
22:45	**23:00**				3	1							**4**	43.2-63.2	4
22:00	**23:00**				10	7			1	1			**9**	46.8-66.8	
23:00	**23:15**				3								**3**	39.1-59.1	3
23:15	**23:30**				1								**1**	33.5-53.5	1
23:30	**23:45**			2	5								**7**	37.5-57.5	7
23:45	**OO:OO**		1	13	24	4	1						**43**	42.2-62.2	39
23:00	**OO:OO**		1	15	33	4	1						**43**	42.2-62.2	
Total		**3**	**35**	**276**	**626**	**347**	**83**	**22**	**3**	**1**			**1397**		
		0.2%	2.5%	19.8%	44.8%	24.8%	5.9%	1.6%	0.2%	0.1%					
AM PEAK		**2**	**2**	**14**	**28**	**13**	**6**	**1**					**62**		
period		8:30	8:15	7:45	7:45	7:45	7:45	4:45					7:45		
% of class		66.7%	5.7%	5.1%	4.5%	3.7%	7.2%	4.5%						4.4%	
PM PEAK		**1**	**2**	**14**	**24**	**10**	**3**	**2**	**1**	**1**			**44**		
period		12:45	12:00	14:30	23:45	15:30	15:30	16:30	16:30	22:15			15:15		
% of class		33.3%	5.7%	5.1%	3.8%	2.9%	3.6%	9.1%	33.3%	100.0%				3.1%	

15% Percentile :	**47**	KPH
50% Percentile :	**57**	KPH
85% Percentile :	**68**	KPH
95% Percentile :	**76**	KPH

20 KPH Pace Speed:	**48.1-68.1**	KPH
Number in Pace:	**1032**	
Percent in Pace:	**73.9**	%
Number of Vehicles >40 KPH:	**1362**	
Percent of Vehicles >40 KPH:	**97.5**	%
Mean Speed(average):	**58**	KPH

Report-2.4

Location : **CW22-48EW** **FIRST LINE - EAST OF WELLINGTON RD 7**

Direction : **West** Road :

Dates : 1 **05/18/2022**

Speeds,km/h ------>		11	21	31	41	51	61	71	81	91	101	111	121	131	140	Total	Pace Speed	Number in Pace
OO:OO	**0:15**				1	10	17	2								**30**	41.2-61.2	28
0:15	**0:30**					3	9	4								**16**	44.2-64.2	14
0:30	**0:45**				3	12	10	5								**30**	35.1-55.1	22
0:45	**1:00**					1										**1**	30.6-50.6	1
OO:OO	**1:00**				4	26	36	11								**16**	44.2-64.2	
1:00	**1:15**					1	1	1								**3**	43.8-63.8	3
1:15	**1:30**							1								**1**	41.8-61.8	1
1:30	**1:45**																	
1:45	**2:00**				1											**1**	17.0-37.0	1
1:00	**2:00**				1	1	1	2								**3**	43.8-63.8	
2:00	**2:15**																	
2:15	**2:30**																	
2:30	**2:45**																	
2:45	**3:00**					2										**2**	28.3-48.3	2
2:00	**3:00**					2										**2**	28.3-48.3	
3:00	**3:15**																	
3:15	**3:30**																	
3:30	**3:45**					1										**1**	29.8-49.8	1
3:45	**4:00**							1								**1**	44.6-64.6	1
3:00	**4:00**					1		1								**1**	44.6-64.6	
4:00	**4:15**						1									**1**	37.9-57.9	1
4:15	**4:30**							1	1							**2**	55.4-75.4	2
4:30	**4:45**					1										**1**	21.9-41.9	1
4:45	**5:00**						1									**1**	32.4-52.4	1
4:00	**5:00**					1	2	1	1							**2**	55.4-75.4	
5:00	**5:15**						1	2	1							**4**	50.0-70.0	3
5:15	**5:30**				1		2	3	1	1						**8**	48.4-68.4	5
5:30	**5:45**					1	2	1		1						**5**	41.7-61.7	4
5:45	**6:00**				1	5	5	2	2							**15**	37.6-57.6	10
5:00	**6:00**				2	6	10	8	4	2						**4**	50.0-70.0	
6:00	**6:15**					1	4	6	3							**14**	53.8-73.8	12
6:15	**6:30**				1	1	4	5								**11**	45.9-65.9	10
6:30	**6:45**					4	3	5								**12**	51.0-71.0	8
6:45	**7:00**				1	2	6	5	4							**18**	54.0-74.0	13
6:00	**7:00**				2	8	17	21	7							**18**	54.0-74.0	
7:00	**7:15**					4	9	16	1							**30**	51.2-71.2	26
7:15	**7:30**				1	7	7	6	1	1						**23**	44.6-64.6	16
7:30	**7:45**					1	14	17	2							**34**	49.9-69.9	31
7:45	**8:00**				2	5	21	21	3	1						**53**	45.4-65.4	43
7:00	**8:00**				3	17	51	60	7	2						**30**	51.2-71.2	
8:00	**8:15**					9	11	18	1							**39**	47.7-67.7	30
8:15	**8:30**					4	12	9	3							**28**	48.7-68.7	21
8:30	**8:45**			2		5	15	8	3	1						**34**	46.8-66.8	26
8:45	**9:00**				3	3	15	4	1							**26**	44.4-64.4	21
8:00	**9:00**			2	3	21	53	39	8	1						**28**	48.7-68.7	
9:00	**9:15**					2	4	5								**11**	44.8-64.8	11
9:15	**9:30**				2	6	3	6	1							**18**	39.2-59.2	10
9:30	**9:45**				1	2	9	3	2							**17**	44.9-64.9	14
9:45	**10:00**				1	7	4	7	1							**20**	46.4-66.4	13
9:00	**10:00**				4	17	20	21	4							**20**	46.4-66.4	
10:00	**10:15**				1	3	4	5	1							**14**	50.0-70.0	10
10:15	**10:30**					5	4	2	1							**12**	42.8-62.8	11
10:30	**10:45**					7	9	3								**19**	40.5-60.5	16
10:45	**11:00**				2	7	7	3	1							**20**	37.6-57.6	15
10:00	**11:00**				3	22	24	13	3							**14**	50.0-70.0	
11:00	**11:15**					4	9	4								**17**	42.6-62.6	15
11:15	**11:30**					6	12	3	2							**23**	42.6-62.6	19
11:30	**11:45**						6	5	2							**13**	51.3-71.3	12
11:45	**12:00**				1	8	8	5	3							**25**	48.0-68.0	18
11:00	**12:00**				1	18	35	17	7							**13**	51.3-71.3	

12:00	**12:15**			1	3	6	8	2			**20**	48.6-68.6	14
12:15	**12:30**				4	6	3	1			**14**	42.9-62.9	11
12:30	**12:45**				2	5	8	4			**19**	56.8-76.8	16
12:45	**13:00**			1	1	13	1	1			**17**	40.4-60.4	14
12:00	**13:00**			2	10	30	20	8			**19**	56.8-76.8	
13:00	**13:15**				9	7					**16**	37.1-57.1	16
13:15	**13:30**				6	8	3	1			**18**	42.3-62.3	16
13:30	**13:45**			2	3	11	7				**23**	48.6-68.6	20
13:45	**14:00**		1	2	5	3	3	2			**16**	32.1-52.1	9
13:00	**14:00**		1	4	23	29	13	3			**23**	48.6-68.6	
14:00	**14:15**				4	6	4				**14**	44.7-64.7	14
14:15	**14:30**		1	1	7	14	1				**24**	44.6-64.6	22
14:30	**14:45**				14	24	5				**43**	40.8-60.8	38
14:45	**15:00**			1	5	18	6				**30**	44.5-64.5	28
14:00	**15:00**		1	2	30	62	16				**14**	44.7-64.7	
15:00	**15:15**		1	1	4	24	7	1			**38**	48.0-68.0	33
15:15	**15:30**			1	9	27	8	1			**46**	42.5-62.5	42
15:30	**15:45**			2	12	8	7				**29**	38.9-58.9	22
15:45	**16:00**				6	7	7	2	1		**23**	48.5-68.5	16
15:00	**16:00**		1	4	31	66	29	4	1		**23**	48.5-68.5	
16:00	**16:15**			1	6	19	11	2	1		**40**	48.5-68.5	32
16:15	**16:30**				1	13	10	1	1		**26**	46.1-66.1	23
16:30	**16:45**				5	10	5	1			**21**	45.5-65.5	17
16:45	**17:00**				8	9	9				**26**	46.0-66.0	22
16:00	**17:00**			1	20	51	35	4	2		**40**	48.5-68.5	
17:00	**17:15**			2	2	8	12				**24**	49.1-69.1	21
17:15	**17:30**			1	5	6	6	3			**21**	45.4-65.4	16
17:30	**17:45**				1	8	5	1			**15**	49.7-69.7	13
17:45	**18:00**			1	3	7	9				**20**	47.9-67.9	17
17:00	**18:00**			4	11	29	32	4			**15**	49.7-69.7	
18:00	**18:15**			1	7	7	2	1			**18**	42.0-62.0	15
18:15	**18:30**				1	2	3	1			**7**	45.0-65.0	6
18:30	**18:45**		1			3	2				**6**	43.7-63.7	5
18:45	**19:00**				1	11	1	4			**17**	52.8-72.8	14
18:00	**19:00**		1	1	9	23	8	6			**17**	52.8-72.8	
19:00	**19:15**				2	3	1	4			**10**	52.4-72.4	7
19:15	**19:30**				2	5	1				**8**	37.8-57.8	7
19:30	**19:45**				1	3	1				**5**	48.9-68.9	5
19:45	**20:00**				3	7	1	2	1		**14**	40.8-60.8	10
19:00	**20:00**				8	18	4	6	1		**10**	52.4-72.4	
20:00	**20:15**			1	4	5	1				**11**	38.6-58.6	9
20:15	**20:30**				1	3	2	2			**8**	52.7-72.7	7
20:30	**20:45**				2	5	1				**8**	40.0-60.0	7
20:45	**21:00**				1	1	2	1			**5**	52.7-72.7	4
20:00	**21:00**			1	8	14	6	3			**8**	52.7-72.7	
21:00	**21:15**			1	4	4					**9**	38.1-58.1	9
21:15	**21:30**					1	3		1		**5**	45.2-65.2	4
21:30	**21:45**				2	2		1	1		**6**	39.5-59.5	4
21:45	**22:00**					1	1	1			**3**	53.1-73.1	3
21:00	**22:00**			1	6	8	4	2	2		**3**	53.1-73.1	
22:00	**22:15**					3					**3**	39.9-59.9	3
22:15	**22:30**				2	2	2	1			**7**	46.5-66.5	6
22:30	**22:45**					1					**1**	34.2-54.2	1
22:45	**23:00**			1		1					**2**	12.2-32.2	1
22:00	**23:00**			1	2	7	2	1			**7**	46.5-66.5	
23:00	**23:15**				1		1	1			**3**	58.3-78.3	2
23:15	**23:30**				3	2					**5**	39.8-59.8	5
23:30	**23:45**			1	2	6		1			**10**	39.3-59.3	8
23:45	**OO:OO**			1	12	27	4				**44**	41.7-61.7	41
23:00	**OO:OO**			2	18	35	5	2			**3**	58.3-78.3	
Total		**6**	**46**	**316**	**621**	**368**	**84**	**11**			**1452**		
		0.4%	3.2%	21.8%	42.8%	25.3%	5.8%	0.8%					
AM PEAK		**2**	**3**	**12**	**21**	**21**	**4**	**1**			**53**		
period		8:30	0:30	0:30	7:45	7:45	6:45	5:15			7:45		
% of class		33.3%	6.5%	3.8%	3.4%	5.7%	4.8%	9.1%				3.7%	
PM PEAK		**1**	**2**	**14**	**27**	**12**	**4**	**1**			**46**		
period		13:45	13:30	14:30	15:15	17:00	12:30	15:45			15:15		
% of class		16.7%	4.3%	4.4%	4.3%	3.3%	4.8%	9.1%				3.2%	

15% Percentile :	**46**	KPH
50% Percentile :	**57**	KPH
85% Percentile :	**68**	KPH
95% Percentile :	**74**	KPH

20 KPH Pace Speed:	**46.8-66.8**	KPH
Number in Pace:	**1076**	
Percent in Pace:	**74.1**	%
Number of Vehicles >40 KPH:	**1405**	
Percent of Vehicles >40 KPH:	**96.8**	%
Mean Speed(average):	**57**	KPH

Report-2.5

Location : **CW22-48EW** **FIRST LINE - EAST OF WELLINGTON RD 7**

Direction : **East + West** Road :

Dates : 1 **05/17/2022**

Speeds,km/h ------>		11	21	31	41	51	61	71	81	91	101	111	121	131	140	Total	Pace Speed	Number in Pace
OO:OO	**0:15**				1	8	14	3								**26**	42.0-62.0	24
0:15	**0:30**				1	2	7	2								**12**	36.4-56.4	10
0:30	**0:45**					2	10	1	1							**14**	48.1-68.1	13
0:45	**1:00**					2	1	1		1						**5**	37.7-57.7	3
OO:OO	**1:00**				2	14	32	7	1	1						**14**	48.1-68.1	
1:00	**1:15**								1							**1**	53.5-73.5	1
1:15	**1:30**				1											**1**	19.1-39.1	1
1:30	**1:45**					1		2	1							**4**	51.6-71.6	3
1:45	**2:00**						1									**1**	40.7-60.7	1
1:00	**2:00**				1	1	1	2	2							**1**	53.5-73.5	
2:00	**2:15**							1								**1**	47.9-67.9	1
2:15	**2:30**																	
2:30	**2:45**				1											**1**	17.9-37.9	1
2:45	**3:00**																	
2:00	**3:00**				1			1								**1**	47.9-67.9	
3:00	**3:15**							1								**1**	41.3-61.3	1
3:15	**3:30**					1	3									**4**	39.4-59.4	4
3:30	**3:45**					1										**1**	25.4-45.4	1
3:45	**4:00**						1	1								**2**	42.4-62.4	2
3:00	**4:00**					2	4	2								**2**	42.4-62.4	
4:00	**4:15**				1											**1**	20.9-40.9	1
4:15	**4:30**							1								**1**	47.2-67.2	1
4:30	**4:45**					1	2									**3**	40.7-60.7	3
4:45	**5:00**					2		1		1						**4**	26.6-46.6	2
4:00	**5:00**				1	3	2	2		1						**1**	47.2-67.2	
5:00	**5:15**				2	4	1	2	1	1						**11**	26.8-46.8	6
5:15	**5:30**				1	3	9	5	2							**20**	46.2-66.2	14
5:30	**5:45**					15	13	3	2	1						**34**	38.7-58.7	28
5:45	**6:00**					4	11	14	1							**30**	51.4-71.4	26
5:00	**6:00**				3	26	34	24	6	2						**30**	51.4-71.4	
6:00	**6:15**					3	9	9	1							**22**	49.2-69.2	19
6:15	**6:30**				1	14	23	7	2							**47**	44.2-64.2	39
6:30	**6:45**				1	9	11	15	2							**38**	47.7-67.7	30
6:45	**7:00**					7	18	18	2	1						**46**	50.4-70.4	37
6:00	**7:00**				2	33	61	49	7	1						**46**	50.4-70.4	
7:00	**7:15**					11	33	8								**52**	44.1-64.1	48
7:15	**7:30**				1	8	9	12	5							**35**	47.8-67.8	25
7:30	**7:45**			1	5	7	16	15	4							**48**	48.7-68.7	32
7:45	**8:00**				3	20	38	21	7							**89**	44.7-64.7	73
7:00	**8:00**			1	9	46	96	56	16							**48**	48.7-68.7	
8:00	**8:15**					6	20	18	2	2						**48**	49.1-69.1	41
8:15	**8:30**				3	20	17	10	2							**52**	39.8-59.8	38
8:30	**8:45**			2	2	15	15	4	3							**41**	40.6-60.6	30
8:45	**9:00**				2	8	23	10								**43**	46.1-66.1	37
8:00	**9:00**			2	7	49	75	42	7	2						**48**	49.1-69.1	
9:00	**9:15**				5	7	10	9	2							**33**	46.9-66.9	21
9:15	**9:30**				2	10	16	2	1							**31**	39.6-59.6	26
9:30	**9:45**				1	4	9	7	1							**22**	46.1-66.1	16
9:45	**10:00**					5	14	10	2	1						**32**	51.7-71.7	25
9:00	**10:00**				8	26	49	28	6	1						**32**	51.7-71.7	
10:00	**10:15**					8	11	4	1	1						**25**	43.2-63.2	23
10:15	**10:30**				2	9	11	7	3							**32**	44.7-64.7	23
10:30	**10:45**					7	15	9	1	1						**33**	48.0-68.0	29
10:45	**11:00**				1	9	16	12	1							**39**	47.0-67.0	33
10:00	**11:00**				3	33	53	32	6	2						**33**	48.0-68.0	
11:00	**11:15**				1	4	15	10	2							**32**	49.5-69.5	26
11:15	**11:30**					7	14	10								**31**	48.2-68.2	27
11:30	**11:45**					5	7	5	1							**18**	41.5-61.5	13
11:45	**12:00**				1	12	12	7								**32**	42.0-62.0	26
11:00	**12:00**				2	28	48	32	3							**32**	49.5-69.5	

12:00	**12:15**			2	2	5	20	5	2						**36**	49.3-69.3	28
12:15	**12:30**					7	16	7	1	1					**32**	47.9-67.9	24
12:30	**12:45**				2	6	14	6							**28**	45.4-65.4	25
12:45	**13:00**			1	2	4	16	5	2						**30**	45.2-65.2	23
12:00	**13:00**			3	6	22	66	23	5	1					**36**	49.3-69.3	
13:00	**13:15**				1	7	18	7		1					**34**	46.0-66.0	29
13:15	**13:30**				1	7	21	9	2						**40**	41.9-61.9	31
13:30	**13:45**				2	11	20	10	4	1					**48**	41.5-61.5	32
13:45	**14:00**				1	2	14	6	5	1					**29**	45.6-65.6	21
13:00	**14:00**				5	27	73	32	11	3					**34**	46.0-66.0	
14:00	**14:15**				2	14	15	7							**38**	46.7-66.7	32
14:15	**14:30**			1	2	11	11	13	1						**39**	46.9-66.9	30
14:30	**14:45**				6	22	35	15	1						**79**	44.5-64.5	64
14:45	**15:00**				3	24	38	15	3						**83**	40.2-60.2	63
14:00	**15:00**			1	13	71	99	50	5						**39**	46.9-66.9	
15:00	**15:15**			1	2	25	24	16	3	1					**72**	43.3-63.3	57
15:15	**15:30**				5	24	42	20	3	1					**95**	43.7-63.7	75
15:30	**15:45**				1	14	34	16	5						**70**	47.2-67.2	54
15:45	**16:00**				3	9	21	20	3		1				**57**	50.1-70.1	43
15:00	**16:00**			1	11	72	121	72	14	2	1				**57**	50.1-70.1	
16:00	**16:15**					15	23	17	4	1	1				**61**	45.9-65.9	46
16:15	**16:30**				3	4	24	17	3	1					**52**	49.9-69.9	42
16:30	**16:45**				2	6	28	17	6	3	1				**63**	50.5-70.5	46
16:45	**17:00**				3	6	13	18	5	2					**47**	52.2-72.2	34
16:00	**17:00**				8	31	88	69	18	7	2				**47**	52.2-72.2	
17:00	**17:15**				1	5	8	24	5						**43**	50.6-70.6	33
17:15	**17:30**					8	19	22	8		1				**58**	52.8-72.8	46
17:30	**17:45**					7	20	21	4						**53**	49.6-69.6	43
17:45	**18:00**				2	1	14	9	6						**32**	54.7-74.7	24
17:00	**18:00**				3	21	61	76	23		1				**32**	54.7-74.7	
18:00	**18:15**					2	16	17	2	1					**38**	52.8-72.8	34
18:15	**18:30**				1	2	7	15	4	2					**31**	52.8-72.8	24
18:30	**18:45**						16	17	3	1					**37**	52.1-72.1	36
18:45	**19:00**			1	3	3	13	10	4		1				**35**	48.7-68.7	25
18:00	**19:00**			1	4	7	52	59	13	4	1				**38**	52.8-72.8	
19:00	**19:15**				3	3	6	14	4	1					**31**	53.3-73.3	23
19:15	**19:30**					1	17	9	4	1					**32**	51.5-71.5	28
19:30	**19:45**						11	13	2	1	1				**28**	50.8-70.8	24
19:45	**20:00**			1		1	14	8	3						**27**	53.9-73.9	24
19:00	**20:00**			1	3	5	48	44	13	3	1				**27**	53.9-73.9	
20:00	**20:15**				1	11	14	10							**36**	45.3-65.3	28
20:15	**20:30**				3	7	10	1	1						**22**	41.6-61.6	18
20:30	**20:45**					7	15	3	1						**26**	38.6-58.6	22
20:45	**21:00**				1	6	5	2	1	1					**16**	38.8-58.8	12
20:00	**21:00**				5	31	44	16	3	1					**36**	45.3-65.3	
21:00	**21:15**				1	4	5	9							**19**	50.1-70.1	14
21:15	**21:30**				1	5	4	3							**13**	47.9-67.9	10
21:30	**21:45**				1	2	4	6	3	1					**17**	49.3-69.3	11
21:45	**22:00**					1	9	2	2	1					**15**	43.6-63.6	12
21:00	**22:00**				3	12	22	20	5	2					**19**	50.1-70.1	
22:00	**22:15**					1	9	11			1				**22**	46.8-66.8	21
22:15	**22:30**					3	9	3	1			1			**17**	45.9-65.9	14
22:30	**22:45**				3	4	6	2							**15**	41.2-61.2	11
22:45	**23:00**					6	9	5	1						**21**	45.3-65.3	16
22:00	**23:00**				3	14	33	21	2		1	1			**22**	46.8-66.8	
23:00	**23:15**				1	3	7	2	2	1					**16**	39.1-59.1	11
23:15	**23:30**					2	3								**5**	40.2-60.2	5
23:30	**23:45**					4	5		1						**10**	37.5-57.5	9
23:45	**OO:OO**				1	16	25	6	2						**50**	42.2-62.2	43
23:00	**OO:OO**				2	25	40	8	5	1					**50**	42.2-62.2	
Total				**10**	**105**	**599**	**1202**	**767**	**171**	**34**	**7**	**1**			**2897**		
				0.3%	3.6%	20.7%	41.5%	26.5%	5.9%	1.2%	0.2%	0.0%					
AM PEAK				**2**	**5**	**20**	**38**	**21**	**7**	**2**					**89**		
period				8:30	7:30	7:45	7:45	7:45	7:45	8:00					7:45		
% of class				20.0%	4.8%	3.3%	3.2%	2.7%	4.1%	5.9%						3.1%	
PM PEAK				**2**	**6**	**25**	**42**	**24**	**8**	**3**	**1**	**1**			**95**		
period				12:00	14:30	15:00	15:15	17:00	17:15	16:30	15:45	22:15			15:15		
% of class				20.0%	5.7%	4.2%	3.5%	3.1%	4.7%	8.8%	14.3%	100.0%				3.3%	

15% Percentile :	**46**	KPH
50% Percentile :	**57**	KPH
85% Percentile :	**68**	KPH
95% Percentile :	**75**	KPH

20 KPH Pace Speed:	**48.0-68.0**	KPH
Number in Pace:	**2061**	
Percent in Pace:	**71.1**	%
Number of Vehicles >40 KPH:	**2791**	
Percent of Vehicles >40 KPH:	**96.3**	%
Mean Speed(average):	**57**	KPH

Report-2.6

Location : **CW22-48EW** **FIRST LINE - EAST OF WELLINGTON RD 7**

Direction : **East + West** Road :

Dates : 1 **05/18/2022**

Speeds,km/h ------>		11	21	31	41	51	61	71	81	91	101	111	121	131	140	Total	Pace Speed	Number in Pace
OO:OO	**0:15**				2	11	19	3								**35**	39.2-59.2	30
0:15	**0:30**					3	9	6								**18**	44.2-64.2	16
0:30	**0:45**				3	13	10	6								**32**	42.7-62.7	24
0:45	**1:00**					1										**1**	30.6-50.6	1
OO:OO	**1:00**				5	28	38	15								**18**	44.2-64.2	
1:00	**1:15**		1	1		1	1	1								**5**	43.8-63.8	3
1:15	**1:30**					1		1								**2**	41.8-61.8	2
1:30	**1:45**																	
1:45	**2:00**				1											**1**	17.0-37.0	1
1:00	**2:00**		1	1	1	2	1	2								**5**	43.8-63.8	
2:00	**2:15**																	
2:15	**2:30**					1	1									**2**	36.6-56.6	2
2:30	**2:45**																	
2:45	**3:00**					3										**3**	28.3-48.3	3
2:00	**3:00**					4	1									**2**	36.6-56.6	
3:00	**3:15**																	
3:15	**3:30**					1										**1**	27.9-47.9	1
3:30	**3:45**					1	1									**2**	38.1-58.1	2
3:45	**4:00**							1								**1**	44.6-64.6	1
3:00	**4:00**					2	1	1								**1**	44.6-64.6	
4:00	**4:15**					1	1									**2**	37.9-57.9	2
4:15	**4:30**				1	1		1	1							**4**	26.2-46.2	2
4:30	**4:45**					1		1								**2**	41.8-61.8	2
4:45	**5:00**					2	1	1								**4**	32.4-52.4	3
4:00	**5:00**				1	5	2	3	1							**2**	41.8-61.8	
5:00	**5:15**					1	1	4	1							**7**	50.0-70.0	6
5:15	**5:30**				2	7	3	3	1	1						**17**	35.7-55.7	11
5:30	**5:45**				6	13	12	7	1	1						**40**	42.6-62.6	28
5:45	**6:00**				1	6	14	10	4							**35**	52.8-72.8	26
5:00	**6:00**				9	27	30	24	7	2						**35**	52.8-72.8	
6:00	**6:15**					3	9	7	3							**22**	49.9-69.9	17
6:15	**6:30**				1	14	18	13	2							**48**	45.3-65.3	38
6:30	**6:45**					7	10	8	1							**26**	46.1-66.1	19
6:45	**7:00**				1	8	13	10	4							**36**	43.1-63.1	26
6:00	**7:00**				2	32	50	38	10							**22**	49.9-69.9	
7:00	**7:15**				1	14	21	21	2							**59**	48.8-68.8	48
7:15	**7:30**		1	1	1	10	10	14	2	1						**40**	44.6-64.6	24
7:30	**7:45**				2	4	24	25	3							**58**	48.1-68.1	50
7:45	**8:00**				3	14	33	28	4	1						**83**	49.4-69.4	65
7:00	**8:00**		1	1	7	42	88	88	11	2						**83**	49.4-69.4	
8:00	**8:15**				2	10	13	24	4							**53**	52.7-72.7	38
8:15	**8:30**					9	16	13	4							**42**	49.3-69.3	31
8:30	**8:45**			2	1	7	22	13	4	1						**50**	46.8-66.8	39
8:45	**9:00**				3	9	24	12	4							**52**	47.3-67.3	41
8:00	**9:00**			2	6	35	75	62	16	1						**53**	52.7-72.7	
9:00	**9:15**				3	5	12	11	2							**33**	44.8-64.8	25
9:15	**9:30**				2	10	11	8	2							**33**	43.9-63.9	24
9:30	**9:45**				1	4	17	5	3							**30**	47.7-67.7	24
9:45	**10:00**				1	16	4	12	2							**35**	38.7-58.7	21
9:00	**10:00**				7	35	44	36	9							**30**	47.7-67.7	
10:00	**10:15**			1	1	8	7	8	1							**26**	43.4-63.4	18
10:15	**10:30**				1	11	8	4	1							**25**	42.8-62.8	21
10:30	**10:45**				4	12	14	8								**38**	38.7-58.7	28
10:45	**11:00**				2	10	15	8	1							**36**	46.7-66.7	27
10:00	**11:00**			1	8	41	44	28	3							**36**	46.7-66.7	
11:00	**11:15**				1	8	10	7	3							**29**	45.2-65.2	21
11:15	**11:30**				1	12	17	12	2	1						**45**	48.0-68.0	34
11:30	**11:45**			1		8	14	6	2	1						**32**	45.3-65.3	26
11:45	**12:00**			2	1	10	10	8	4							**35**	48.0-68.0	24
11:00	**12:00**			3	3	38	51	33	11	2						**45**	48.0-68.0	

| | | |

Report-3.1		Location :	CW22-48EW	FIRST LINE - EAST OF WELLINGTON RD 7					
				Road :					
		Dates :	05/17/2022						
		North		South		East		West		Total	
Directions	---------->	Volume	%	Volume	%	Volume	%	Volume	%	Volume	%
OO:OO	0:15					2	0.1%	24	1.7%	26	0.9%
0:15	0:30					2	0.1%	10	0.7%	12	0.4%
0:30	0:45					2	0.1%	12	0.9%	14	0.5%
0:45	1:00					2	0.1%	3	0.2%	5	0.2%
OO:OO	1:00					8	0.5%	49	3.5%	57	2.0%
1:00	1:15					1	0.1%			1	0.0%
1:15	1:30					1	0.1%			1	0.0%
1:30	1:45					2	0.1%	2	0.1%	4	0.1%
1:45	2:00							1	0.1%	1	0.0%
1:00	2:00					4	0.3%	3	0.2%	7	0.2%
2:00	2:15					1	0.1%			1	0.0%
2:15	2:30										
2:30	2:45					1	0.1%			1	0.0%
2:45	3:00										
2:00	3:00					2	0.1%			2	0.1%
3:00	3:15							1	0.1%	1	0.0%
3:15	3:30					2	0.1%	2	0.1%	4	0.1%
3:30	3:45							1	0.1%	1	0.0%
3:45	4:00					1	0.1%	1	0.1%	2	0.1%
3:00	4:00					3	0.2%	5	0.4%	8	0.3%
4:00	4:15					1	0.1%			1	0.0%
4:15	4:30					1	0.1%			1	0.0%
4:30	4:45					1	0.1%	2	0.1%	3	0.1%
4:45	5:00					3	0.2%	1	0.1%	4	0.1%
4:00	5:00					6	0.4%	3	0.2%	9	0.3%
5:00	5:15					7	0.5%	4	0.3%	11	0.4%
5:15	5:30					9	0.6%	11	0.8%	20	0.7%
5:30	5:45					31	2.1%	3	0.2%	34	1.2%
5:45	6:00					18	1.2%	12	0.9%	30	1.0%
5:00	6:00					65	4.3%	30	2.1%	95	3.3%
6:00	6:15					10	0.7%	12	0.9%	22	0.8%
6:15	6:30					34	2.3%	13	0.9%	47	1.6%
6:30	6:45					18	1.2%	20	1.4%	38	1.3%
6:45	7:00					23	1.5%	23	1.6%	46	1.6%
6:00	7:00					85	5.7%	68	4.9%	153	5.3%
7:00	7:15					25	1.7%	27	1.9%	52	1.8%
7:15	7:30					12	0.8%	23	1.6%	35	1.2%
7:30	7:45					25	1.7%	23	1.6%	48	1.7%
7:45	8:00					27	1.8%	62	4.4%	89	3.1%
7:00	8:00					89	5.9%	135	9.7%	224	7.7%
8:00	8:15					18	1.2%	30	2.1%	48	1.7%
8:15	8:30					18	1.2%	34	2.4%	52	1.8%
8:30	8:45					9	0.6%	32	2.3%	41	1.4%
8:45	9:00					20	1.3%	23	1.6%	43	1.5%
8:00	9:00					65	4.3%	119	8.5%	184	6.4%
9:00	9:15					20	1.3%	13	0.9%	33	1.1%
9:15	9:30					16	1.1%	15	1.1%	31	1.1%
9:30	9:45					10	0.7%	12	0.9%	22	0.8%
9:45	10:00					14	0.9%	18	1.3%	32	1.1%
9:00	10:00					60	4.0%	58	4.2%	118	4.1%
10:00	10:15					14	0.9%	11	0.8%	25	0.9%
10:15	10:30					16	1.1%	16	1.1%	32	1.1%
10:30	10:45					10	0.7%	23	1.6%	33	1.1%
10:45	11:00					15	1.0%	24	1.7%	39	1.3%
10:00	11:00					55	3.7%	74	5.3%	129	4.5%
11:00	11:15					17	1.1%	15	1.1%	32	1.1%
11:15	11:30					13	0.9%	18	1.3%	31	1.1%
11:30	11:45					10	0.7%	8	0.6%	18	0.6%
11:45	12:00					15	1.0%	17	1.2%	32	1.1%
11:00	12:00					55	3.7%	58	4.2%	113	3.9%

12:00	12:15			11	0.7%	25	1.8%	36	1.2%
12:15	12:30			20	1.3%	12	0.9%	32	1.1%
12:30	12:45			14	0.9%	14	1.0%	28	1.0%
12:45	13:00			12	0.8%	18	1.3%	30	1.0%
12:00	13:00			57	3.8%	69	4.9%	126	4.3%
13:00	13:15			16	1.1%	18	1.3%	34	1.2%
13:15	13:30			26	1.7%	14	1.0%	40	1.4%
13:30	13:45			24	1.6%	24	1.7%	48	1.7%
13:45	14:00			16	1.1%	13	0.9%	29	1.0%
13:00	14:00			82	5.5%	69	4.9%	151	5.2%
14:00	14:15			21	1.4%	17	1.2%	38	1.3%
14:15	14:30			21	1.4%	18	1.3%	39	1.3%
14:30	14:45			36	2.4%	43	3.1%	79	2.7%
14:45	15:00			53	3.5%	30	2.1%	83	2.9%
14:00	15:00			131	8.7%	108	7.7%	239	8.2%
15:00	15:15			43	2.9%	29	2.1%	72	2.5%
15:15	15:30			51	3.4%	44	3.1%	95	3.3%
15:30	15:45			42	2.8%	28	2.0%	70	2.4%
15:45	16:00			31	2.1%	26	1.9%	57	2.0%
15:00	16:00			167	11.1%	127	9.1%	294	10.1%
16:00	16:15			25	1.7%	36	2.6%	61	2.1%
16:15	16:30			32	2.1%	20	1.4%	52	1.8%
16:30	16:45			28	1.9%	35	2.5%	63	2.2%
16:45	17:00			35	2.3%	12	0.9%	47	1.6%
16:00	17:00			120	8.0%	103	7.4%	223	7.7%
17:00	17:15			28	1.9%	15	1.1%	43	1.5%
17:15	17:30			39	2.6%	19	1.4%	58	2.0%
17:30	17:45			30	2.0%	23	1.6%	53	1.8%
17:45	18:00			14	0.9%	18	1.3%	32	1.1%
17:00	18:00			111	7.4%	75	5.4%	186	6.4%
18:00	18:15			26	1.7%	12	0.9%	38	1.3%
18:15	18:30			18	1.2%	13	0.9%	31	1.1%
18:30	18:45			25	1.7%	12	0.9%	37	1.3%
18:45	19:00			24	1.6%	11	0.8%	35	1.2%
18:00	19:00			93	6.2%	48	3.4%	141	4.9%
19:00	19:15			14	0.9%	17	1.2%	31	1.1%
19:15	19:30			19	1.3%	13	0.9%	32	1.1%
19:30	19:45			18	1.2%	10	0.7%	28	1.0%
19:45	20:00			15	1.0%	12	0.9%	27	0.9%
19:00	20:00			66	4.4%	52	3.7%	118	4.1%
20:00	20:15			20	1.3%	16	1.1%	36	1.2%
20:15	20:30			15	1.0%	7	0.5%	22	0.8%
20:30	20:45			16	1.1%	10	0.7%	26	0.9%
20:45	21:00			10	0.7%	6	0.4%	16	0.6%
20:00	21:00			61	4.1%	39	2.8%	100	3.5%
21:00	21:15			10	0.7%	9	0.6%	19	0.7%
21:15	21:30			5	0.3%	8	0.6%	13	0.4%
21:30	21:45			9	0.6%	8	0.6%	17	0.6%
21:45	22:00			8	0.5%	7	0.5%	15	0.5%
21:00	22:00			32	2.1%	32	2.3%	64	2.2%
22:00	22:15			13	0.9%	9	0.6%	22	0.8%
22:15	22:30			12	0.8%	5	0.4%	17	0.6%
22:30	22:45			14	0.9%	1	0.1%	15	0.5%
22:45	23:00			17	1.1%	4	0.3%	21	0.7%
22:00	23:00			56	3.7%	19	1.4%	75	2.6%
23:00	23:15			13	0.9%	3	0.2%	16	0.6%
23:15	23:30			4	0.3%	1	0.1%	5	0.2%
23:30	23:45			3	0.2%	7	0.5%	10	0.3%
23:45	OO:OO			7	0.5%	43	3.1%	50	1.7%
23:00	OO:OO			27	1.8%	54	3.9%	81	2.8%
Total				**1500**		**1397**		**2897**	100.0%
				51.8%		**48.2%**		100.0%	
AM PEAK				**34**		**62**		**89**	
period				**6:15**		**7:45**		**7:45**	
% of class					2.3%		4.4%		3.1%
PM PEAK				**53**		**44**		**95**	
period				**14:45**		**15:15**		**15:15**	
% of class					3.5%		3.1%		3.3%

Report-3.2		Location :	CW22-48EW	FIRST LINE - EAST OF WELLINGTON RD 7							
				Road :							
		Dates :	05/18/2022								
		North		South		East		West		Total	
Directions	---------->	Volume	%	Volume	%	Volume	%	Volume	%	Volume	%
OO:OO	0:15					5	0.3%	30	2.1%	35	1.2%
0:15	0:30					2	0.1%	16	1.1%	18	0.6%
0:30	0:45					2	0.1%	30	2.1%	32	1.1%
0:45	1:00							1	0.1%	1	0.0%
OO:OO	1:00					9	0.6%	77	5.3%	86	2.9%
1:00	1:15					2	0.1%	3	0.2%	5	0.2%
1:15	1:30					1	0.1%	1	0.1%	2	0.1%
1:30	1:45										
1:45	2:00							1	0.1%	1	0.0%
1:00	2:00					3	0.2%	5	0.3%	8	0.3%
2:00	2:15										
2:15	2:30					2	0.1%			2	0.1%
2:30	2:45										
2:45	3:00					1	0.1%	2	0.1%	3	0.1%
2:00	3:00					3	0.2%	2	0.1%	5	0.2%
3:00	3:15										
3:15	3:30					1	0.1%			1	0.0%
3:30	3:45					1	0.1%	1	0.1%	2	0.1%
3:45	4:00							1	0.1%	1	0.0%
3:00	4:00					2	0.1%	2	0.1%	4	0.1%
4:00	4:15					1	0.1%	1	0.1%	2	0.1%
4:15	4:30					2	0.1%	2	0.1%	4	0.1%
4:30	4:45					1	0.1%	1	0.1%	2	0.1%
4:45	5:00					3	0.2%	1	0.1%	4	0.1%
4:00	5:00					7	0.5%	5	0.3%	12	0.4%
5:00	5:15					3	0.2%	4	0.3%	7	0.2%
5:15	5:30					9	0.6%	8	0.6%	17	0.6%
5:30	5:45					35	2.3%	5	0.3%	40	1.4%
5:45	6:00					20	1.3%	15	1.0%	35	1.2%
5:00	6:00					67	4.5%	32	2.2%	99	3.4%
6:00	6:15					8	0.5%	14	1.0%	22	0.7%
6:15	6:30					37	2.5%	11	0.8%	48	1.6%
6:30	6:45					14	0.9%	12	0.8%	26	0.9%
6:45	7:00					18	1.2%	18	1.2%	36	1.2%
6:00	7:00					77	5.1%	55	3.8%	132	4.5%
7:00	7:15					29	1.9%	30	2.1%	59	2.0%
7:15	7:30					17	1.1%	23	1.6%	40	1.4%
7:30	7:45					24	1.6%	34	2.3%	58	2.0%
7:45	8:00					30	2.0%	53	3.7%	83	2.8%
7:00	8:00					100	6.7%	140	9.6%	240	8.1%
8:00	8:15					14	0.9%	39	2.7%	53	1.8%
8:15	8:30					14	0.9%	28	1.9%	42	1.4%
8:30	8:45					16	1.1%	34	2.3%	50	1.7%
8:45	9:00					26	1.7%	26	1.8%	52	1.8%
8:00	9:00					70	4.7%	127	8.7%	197	6.7%
9:00	9:15					22	1.5%	11	0.8%	33	1.1%
9:15	9:30					15	1.0%	18	1.2%	33	1.1%
9:30	9:45					13	0.9%	17	1.2%	30	1.0%
9:45	10:00					15	1.0%	20	1.4%	35	1.2%
9:00	10:00					65	4.3%	66	4.5%	131	4.4%
10:00	10:15					12	0.8%	14	1.0%	26	0.9%
10:15	10:30					13	0.9%	12	0.8%	25	0.8%
10:30	10:45					19	1.3%	19	1.3%	38	1.3%
10:45	11:00					16	1.1%	20	1.4%	36	1.2%
10:00	11:00					60	4.0%	65	4.5%	125	4.2%
11:00	11:15					12	0.8%	17	1.2%	29	1.0%
11:15	11:30					22	1.5%	23	1.6%	45	1.5%
11:30	11:45					19	1.3%	13	0.9%	32	1.1%
11:45	12:00					10	0.7%	25	1.7%	35	1.2%
11:00	12:00					63	4.2%	78	5.4%	141	4.8%

12:00	**12:15**			**26**	1.7%	**20**	1.4%	**46**	1.6%	
12:15	**12:30**			**15**	1.0%	**14**	1.0%	**29**	1.0%	
12:30	**12:45**			**21**	1.4%	**19**	1.3%	**40**	1.4%	
12:45	**13:00**			**22**	1.5%	**17**	1.2%	**39**	1.3%	
12:00	**13:00**			**84**	5.6%	**70**	4.8%	**154**	5.2%	
13:00	**13:15**			**17**	1.1%	**16**	1.1%	**33**	1.1%	
13:15	**13:30**			**16**	1.1%	**18**	1.2%	**34**	1.2%	
13:30	**13:45**			**17**	1.1%	**23**	1.6%	**40**	1.4%	
13:45	**14:00**			**16**	1.1%	**16**	1.1%	**32**	1.1%	
13:00	**14:00**			**66**	4.4%	**73**	5.0%	**139**	4.7%	
14:00	**14:15**			**31**	2.1%	**14**	1.0%	**45**	1.5%	
14:15	**14:30**			**33**	2.2%	**24**	1.7%	**57**	1.9%	
14:30	**14:45**			**40**	2.7%	**43**	3.0%	**83**	2.8%	
14:45	**15:00**			**47**	3.1%	**30**	2.1%	**77**	2.6%	
14:00	**15:00**			**151**	10.0%	**111**	7.6%	**262**	8.9%	
15:00	**15:15**			**44**	2.9%	**38**	2.6%	**82**	2.8%	
15:15	**15:30**			**56**	3.7%	**46**	3.2%	**102**	3.5%	
15:30	**15:45**			**35**	2.3%	**29**	2.0%	**64**	2.2%	
15:45	**16:00**			**31**	2.1%	**23**	1.6%	**54**	1.8%	
15:00	**16:00**			**166**	11.0%	**136**	9.4%	**302**	10.2%	
16:00	**16:15**			**30**	2.0%	**40**	2.8%	**70**	2.4%	
16:15	**16:30**			**31**	2.1%	**26**	1.8%	**57**	1.9%	
16:30	**16:45**			**17**	1.1%	**21**	1.4%	**38**	1.3%	
16:45	**17:00**			**27**	1.8%	**26**	1.8%	**53**	1.8%	
16:00	**17:00**			**105**	7.0%	**113**	7.8%	**218**	7.4%	
17:00	**17:15**			**29**	1.9%	**24**	1.7%	**53**	1.8%	
17:15	**17:30**			**23**	1.5%	**21**	1.4%	**44**	1.5%	
17:30	**17:45**			**34**	2.3%	**15**	1.0%	**49**	1.7%	
17:45	**18:00**			**27**	1.8%	**20**	1.4%	**47**	1.6%	
17:00	**18:00**			**113**	7.5%	**80**	5.5%	**193**	6.5%	
18:00	**18:15**			**22**	1.5%	**18**	1.2%	**40**	1.4%	
18:15	**18:30**			**23**	1.5%	**7**	0.5%	**30**	1.0%	
18:30	**18:45**			**16**	1.1%	**6**	0.4%	**22**	0.7%	
18:45	**19:00**			**16**	1.1%	**17**	1.2%	**33**	1.1%	
18:00	**19:00**			**77**	5.1%	**48**	3.3%	**125**	4.2%	
19:00	**19:15**			**17**	1.1%	**10**	0.7%	**27**	0.9%	
19:15	**19:30**			**10**	0.7%	**8**	0.6%	**18**	0.6%	
19:30	**19:45**			**17**	1.1%	**5**	0.3%	**22**	0.7%	
19:45	**20:00**			**11**	0.7%	**14**	1.0%	**25**	0.8%	
19:00	**20:00**			**55**	3.7%	**37**	2.5%	**92**	3.1%	
20:00	**20:15**			**15**	1.0%	**11**	0.8%	**26**	0.9%	
20:15	**20:30**			**6**	0.4%	**8**	0.6%	**14**	0.5%	
20:30	**20:45**			**14**	0.9%	**8**	0.6%	**22**	0.7%	
20:45	**21:00**			**14**	0.9%	**5**	0.3%	**19**	0.6%	
20:00	**21:00**			**49**	3.3%	**32**	2.2%	**81**	2.7%	
21:00	**21:15**			**7**	0.5%	**9**	0.6%	**16**	0.5%	
21:15	**21:30**			**12**	0.8%	**5**	0.3%	**17**	0.6%	
21:30	**21:45**			**5**	0.3%	**6**	0.4%	**11**	0.4%	
21:45	**22:00**			**7**	0.5%	**3**	0.2%	**10**	0.3%	
21:00	**22:00**			**31**	2.1%	**23**	1.6%	**54**	1.8%	
22:00	**22:15**			**11**	0.7%	**3**	0.2%	**14**	0.5%	
22:15	**22:30**			**7**	0.5%	**7**	0.5%	**14**	0.5%	
22:30	**22:45**			**19**	1.3%	**1**	0.1%	**20**	0.7%	
22:45	**23:00**			**16**	1.1%	**2**	0.1%	**18**	0.6%	
22:00	**23:00**			**53**	3.5%	**13**	0.9%	**66**	2.2%	
23:00	**23:15**			**14**	0.9%	**3**	0.2%	**17**	0.6%	
23:15	**23:30**			**4**	0.3%	**5**	0.3%	**9**	0.3%	
23:30	**23:45**			**8**	0.5%	**10**	0.7%	**18**	0.6%	
23:45	**OO:OO**			**1**	0.1%	**44**	3.0%	**45**	1.5%	
23:00	**OO:OO**			**27**	1.8%	**62**	4.3%	**89**	3.0%	
Total				**1503**		**1452**		**2955**	100.0%	
				50.9%		**49.1%**		100.0%		
AM PEAK				**37**		**53**		**83**		
period				**6:15**		**7:45**		**7:45**		
% of class					2.5%		3.7%		2.8%	
PM PEAK				**56**		**46**		**102**		
period				**15:15**		**15:15**		**15:15**		
% of class					3.7%		3.2%		3.5%	

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Appendix B

MECP Sound Level Limits

APPENDIX B

Table B-1: Sound Level Limit for Outdoor Living Areas – Road and Rail (MECP Table C-1 of NPC-300)

Time Period	L_{eq}(16) (dBA)
16-hour, 07:00 – 23:00	55

Table B-2: Indoor Sound Level Limits – Road and Rail (MECP Table C-2 of NPC-300)

Type of Space	Time Period	L_{eq} (dBA)	
		Road	Rail
Living / dining, den areas of residences, hospitals, nursing homes, schools, daycare centres, etc.	07:00 – 23:00	45	40
Living / dining, den areas of residences, hospitals, nursing homes, etc. (except schools or daycare centres)	23:00 – 07:00	45	40
Sleeping quarters	07:00 – 23:00	45	40
Sleeping quarters	23:00 – 07:00	40	35

Table B-3: Road Noise Control Measures – Outdoor Living Areas (Adapted from NPC Section C7.1.1)

Sound Levels	Measures
≤ 55 dBA	Noise control measures may not be required.
> 55 dBA and ≤ 60 dBA	Noise control measures may be applied, otherwise warning clause Type A.
> 60 dBA	Noise control measures should be implemented to reduce the levels to 55 dBA, otherwise warning clause Type B.

Table B-4: Plane of a Window – Ventilation Requirements

Daytime Period, 07:00 – 23:00 Hours (Adapted from NPC Section C7.1.2.1)

Sound Levels	Measures
≤ 55 dBA	Noise control measures may not be required.
> 55 dBA and ≤ 65 dBA	The dwelling should be designed with a provision of for the installation of central air conditioning in the future, at the occupant's discretion. Warning clause Type C is also recommended.
> 65 dBA	Installation of central air conditioning should be implemented with a warning clause Type D. In addition, building components including windows, walls and doors, where applicable, should be designed so that the indoor sound levels comply with the sound level limits in Table B-2.

Table B-5: Plane of a Window – Ventilation Requirements
Nighttime Period, 23:00 – 07.00 Hours (Adapted from NPC Section C7.1.2.2)

Sound Levels	Measures
≤ 50 dBA	Noise control measures may not be required.
> 50 dBA and ≤ 60 dBA	The dwelling should be designed with a provision of for the installation of central air conditioning in the future, at the occupant's discretion. Warning clause Type C is also recommended.
> 60 dBA	Installation of central air conditioning should be implemented with a warning clause Type D. In addition, building components including windows, walls and doors, where applicable, should be designed so that the indoor sound levels comply with the sound level limits in Table B-2.

Table B-6: Indoor Living Areas – Building Components (Adapted from NPC Section C7.1.3)

Sound Levels	Measures
> 60 dBA nighttime > 65 dBA daytime	Building components including windows, walls and doors, where applicable, should be designed so that the indoor sound levels comply with the sound level limits in Table B-2. The acoustical performance of the building components (windows, doors and walls) should be specified.

Table B-7: Exclusion Limit Values of One-Hour Equivalent Sound Level (L_{eq}, dBA) Outdoor Points of Reception (MECP Table C-5 of NPC-300)

Time of Day	Class 1 Area	Class 2 Area	Class 3 Area	Class 4 Area
07:00 – 19:00	50 dBA	50 dBA	45 dBA	55 dBA
19:00 – 23:00	50 dBA	45 dBA	40 dBA	55 dBA

Table B-8: Exclusion Limit Values of One-Hour Equivalent Sound Level (L_{eq}, dBA) Plane of Window of Noise Sensitive Spaces (MECP Table C-6 of NPC-300)

Time of Day	Class 1 Area	Class 2 Area	Class 3 Area	Class 4 Area
07:00 – 19:00	50 dBA	50 dBA	45 dBA	60 dBA
19:00 – 23:00	50 dBA	50 dBA	40 dBA	60 dBA
23:00 – 07:00	45 dBA	45 dBA	40 dBA	55 dBA

Table B-9: Exclusion Limit Values of Impulsive Sound Level (LLM, dBAI) Outdoor Points of Reception (MECP Table C-7 of NPC-300)

Time of Day	Actual number of impulses in Period of one hour	Class 1 Area	Class 2 Area	Class 3 Area	Class 4 Area
07:00 – 23:00	9 or more	50	50	45	55
07:00 – 23:00	7 to 8	55	55	50	60
07:00 – 23:00	5 to 6	60	60	55	65
07:00 – 23:00	4	65	65	60	70
07:00 – 23:00	3	70	70	65	75
07:00 – 23:00	2	75	75	70	80
07:00 – 23:00	1	80	80	75	85

Table B-10: Exclusion Limit Values of Impulsive Sound Level (LLM, dBAI) Plane of Window – Noise Sensitive Spaces (Day/Night) (MECP Table C-8 of NPC-300)

Actual number of impulses in Period of one hour	Class 1 Area (7:00-23:00) / (23:00-7:00)	Class 2 Area (7:00-23:00) / (23:00-7:00)	Class 3 Area (7:00-19:00) / (19:00-7:00)	Class 4 Area (7:00-23:00) / (23:00-7:00)
9 or more	50/45	50/45	45/40	60/55
7 to 8	55/50	55/50	50/45	65/60
5 to 6	60/55	60/55	55/50	70/65
4	65/60	65/60	60/55	75/70
3	70/65	70/65	65/60	80/75
2	75/70	75/70	70/65	85/80
1	80/75	80/75	75/70	90/85

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Appendix C

Sample Transportation Noise Modeling Printouts

STAMSON 5.0 NORMAL REPORT Date: 24-02-2026 16:54:14
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: por1.te Time Period: Day/Night 16/8 hours
Description: POR01 - OLA Calculation

Road data, segment # 1: 1st Line (day/night)

Car traffic volume	: 3446/383	veh/TimePeriod	*
Medium truck volume	: 110/12	veh/TimePeriod	*
Heavy truck volume	: 110/12	veh/TimePeriod	*
Posted speed limit	: 40	km/h	
Road gradient	: 2	%	
Road pavement	: 1	(Typical asphalt or concrete)	

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT)	:	2955
Percentage of Annual Growth	:	2.50
Number of Years of Growth	:	13.00
Medium Truck % of Total Volume	:	3.00
Heavy Truck % of Total Volume	:	3.00
Day (16 hrs) % of Total Volume	:	90.00

Data for Segment # 1: 1st Line (day/night)

Angle1 Angle2	: -90.00 deg	90.00 deg
Wood depth	: 0	(No woods.)
No of house rows	: 0 / 0	
Surface	: 1	(Absorptive ground surface)
Receiver source distance	: 15.00 / 15.00	m
Receiver height	: 1.50 / 4.50	m
Topography	: 1	(Flat/gentle slope; no barrier)
Reference angle	: 0.00	

Results segment # 1: 1st Line (day)

Source height = 1.32 m

ROAD (0.00 + 58.15 + 0.00) = 58.15 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	59.60	0.00	0.00	-1.46	0.00	0.00	0.00	58.15

Segment Leq : 58.15 dBA

Total Leq All Segments: 58.15 dBA

↟

Results segment # 1: 1st Line (night)

Source height = 1.31 m

ROAD (0.00 + 51.70 + 0.00) = 51.70 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.58	53.01	0.00	0.00	-1.31	0.00	0.00	0.00	51.70

Segment Leq : 51.70 dBA

Total Leq All Segments: 51.70 dBA

↟

TOTAL Leq FROM ALL SOURCES (DAY): 58.15
(NIGHT): 51.70

↟

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STAMSON 5.0 NORMAL REPORT Date: 24-02-2026 16:51:26
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: por1.te Time Period: Day/Night 16/8 hours
Description: POR01 - Plane of Window Calculation

Road data, segment # 1: 1st Line (day/night)

Car traffic volume : 3532/392 veh/TimePeriod *
Medium truck volume : 113/13 veh/TimePeriod *
Heavy truck volume : 113/13 veh/TimePeriod *
Posted speed limit : 40 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 2955
Percentage of Annual Growth : 2.50
Number of Years of Growth : 14.00
Medium Truck % of Total Volume : 3.00
Heavy Truck % of Total Volume : 3.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: 1st Line (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 15.00 / 15.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 1st Line (day)

Source height = 1.32 m

ROAD (0.00 + 58.26 + 0.00) = 58.26 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	59.72	0.00	0.00	-1.46	0.00	0.00	0.00	58.26

Segment Leq : 58.26 dBA

Total Leq All Segments: 58.26 dBA

↟

Results segment # 1: 1st Line (night)

Source height = 1.33 m

ROAD (0.00 + 51.99 + 0.00) = 51.99 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.58	53.31	0.00	0.00	-1.31	0.00	0.00	0.00	51.99

Segment Leq : 51.99 dBA

Total Leq All Segments: 51.99 dBA

↟

TOTAL Leq FROM ALL SOURCES (DAY): 58.26
(NIGHT): 51.99

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Appendix D

Sample External Stationary Noise Modeling Printouts

Model: 18XXXX 1/1 Octave Model
Normal Operations - Site
Group: (main group)
Listing of: Point sources, for method Industrial noise - ISO 9613-2:1996

Group	Item ID	Grp ID	Date	Name	Desc.	Shape	X	Y	Height
--	314	0	11:19, 19 Aug 2025	EX001		Point	547026.95	4836172.08	0.00
--	315	0	11:17, 19 Aug 2025	EX002		Point	547383.42	4836163.71	1.00

Model: 18XXXX 1/1 Octave Model
Normal Operations - Site
Group: (main group)
Listing of: Point sources, for method Industrial noise - ISO 9613-2:1996

Group	Rel.H	Abs.H	Terrain L	HDef.	Type	DI	DI_Horz	DI_Vert	DI(0)	DI(10)	DI(20)
--	0.00	0.00	0.00	Relative	Normal point source	none	0	0	0.0	0.0	0.0
--	1.00	1.00	0.00	Relative	Normal point source	none	0	0	0.0	0.0	0.0

Model: 18XXXX 1/1 Octave Model
Normal Operations - Site
Group: (main group)
Listing of: Point sources, for method Industrial noise - ISO 9613-2:1996

Group	DI(30)	DI(40)	DI(50)	DI(60)	DI(70)	DI(80)	DI(90)	DI(100)	DI(110)	DI(120)	DI(130)	DI(140)	DI(150)
--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
--	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Model: 18XXXX 1/1 Octave Model
Normal Operations - Site
Group: (main group)
Listing of: Point sources, for method Industrial noise - ISO 9613-2:1996

Group	DI(160)	DI(170)	DI(180)	Pa(%)(D)	Pa(%)(E)	Pa(%)(N)	Pa(h)(D)	Pa(h)(E)	Pa(h)(N)	Ca(D)	Ca(E)	Ca(N)
--	0.0	0.0	0.0	100.000	100.000	100.000	1.0000	1.0000	1.0000	0.00	0.00	0.00
--	0.0	0.0	0.0	100.000	100.000	100.000	1.0000	1.0000	1.0000	0.00	0.00	0.00

Model: 18XXXX 1/1 Octave Model
Normal Operations - Site
Group: (main group)
Listing of: Point sources, for method Industrial noise - ISO 9613-2:1996

Group	Weighting	No refl.	No building	No ind.site	Lw 31	Lw 63	Lw 125	Lw 250	Lw 500	Lw 1k	Lw 2k	Lw 4k	Lw 8k
--	A	No	No	No	--	--	--	--	120.00	--	--	--	--
--	A	No	No	No	--	--	--	--	105.00	--	--	--	--

Model: 18XXXX 1/1 Octave Model
Normal Operations - Site
Group: (main group)
Listing of: Point sources, for method Industrial noise - ISO 9613-2:1996

Group	Lw Tot	Red 31	Red 63	Red 125	Red 250	Red 500	Red 1k	Red 2k	Red 4k	Red 8k	LwTot 31	LwTot 63
--	120.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	--
--	105.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--	--

Model: 18XXXX 1/1 Octave Model
Normal Operations - Site
Group: (main group)
Listing of: Point sources, for method Industrial noise - ISO 9613-2:1996

Group	LwTot 125	LwTot 250	LwTot 500	LwTot 1k	LwTot 2k	LwTot 4k	LwTot 8k	LwTot Tot
--	--	--	120.00	--	--	--	--	120.00
--	--	--	105.00	--	--	--	--	105.00

Model: 18XXXX 1/1 Octave Model
Normal Operations - Site
Group: (main group)
Listing of: Receivers, for method Industrial noise - ISO 9613-2:1996

Name	Desc.	Terrain L	HDef.	Height A	Height B	Height C	Height D	Height E	Height F	Façade
POR03		0.00	Relative	4.50	--	--	--	--	--	Yes
POR01		0.00	Relative	1.50	4.50	--	--	--	--	Yes
OPOR01		0.00	Relative	1.50	--	--	--	--	--	No
POR02		0.00	Relative	1.50	4.50	--	--	--	--	Yes
OPOR02		0.00	Relative	1.50	--	--	--	--	--	No

Model: 18XXXX 1/1 Octave Model
Normal Operations - Site
Group: (main group)
Listing of: Buildings, for method Industrial noise - ISO 9613-2:1996

Name	Desc.	Height	Terrain L	HDef.	Function	Bld.type	ID dwelling	Floating	Refl. 31	Refl. 63	Refl. 125
		6.00	0.00	Relative				No	0.80	0.80	0.80
1		6.00	0.00	Relative				No	0.80	0.80	0.80
2		6.00	0.00	Relative				No	0.80	0.80	0.80
3		9.00	0.00	Relative				No	0.80	0.80	0.80
4		6.00	0.00	Relative				No	0.80	0.80	0.80

Model: 18XXXX 1/1 Octave Model
Normal Operations - Site
Group: (main group)
Listing of: Buildings, for method Industrial noise - ISO 9613-2:1996

Name	Refl. 250	Refl. 500	Refl. 1k	Refl. 2k	Refl. 4k	Refl. 8k
	0.80	0.80	0.80	0.80	0.80	0.80
1	0.80	0.80	0.80	0.80	0.80	0.80
2	0.80	0.80	0.80	0.80	0.80	0.80
3	0.80	0.80	0.80	0.80	0.80	0.80
4	0.80	0.80	0.80	0.80	0.80	0.80

Report: Table of Results
Model: 18XXXX 1/1 Octave Model
LAeq: total results for receivers
Group: (main group)
Group Reduction: No

Name Receiver	Description	Group	X	Y	Height	Day	Evening	Night	Li
OPOR01_A		--	547497.64	4836134.31	1.50	45.1	45.1	45.1	45.1
OPOR02_A		--	547476.86	4836207.61	1.50	48.1	48.1	48.1	48.1
POR01_A		--	547522.64	4836115.39	1.50	43.4	43.4	43.4	43.4
POR01_B		--	547522.64	4836115.39	4.50	47.1	47.1	47.1	47.1
POR02_A		--	547484.75	4836216.88	1.50	46.2	46.2	46.2	46.2
POR02_B		--	547484.75	4836216.88	4.50	49.7	49.7	49.7	49.7
POR03_A		--	547556.88	4836192.42	4.50	46.0	46.0	46.0	46.0

All shown dB values are A-weighted

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Appendix E

MECP Approvals for Neighbouring Businesses

Content Copy Of Original

Ontario

Ministry of the Environment and Climate Change
Ministère de l'Environnement et de l'Action en matière de changement climatique

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL
NUMBER 2894-A6UQA9
Issue Date: May 11, 2016

Jefferson Elora Corporation
60 First Line Road
Elora, Ontario
N0B 1S0

Site Location: 60 First Line Road, Elora
Centre Wellington Township, County of Wellington

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

Description Section

An automotive metal component manufacturing facility, consisting of the following processes and support units:

- metal stamping;

- various welding and spot welding operations;
- assembly;

including the *Equipment* and any other ancillary and support processes and activities, operating at a *Facility Production Limit* of up to **90.41 kilograms of welding wires used per day,** discharging to the air as described in the *Original ESDM Report.*

For the purpose of this environmental compliance approval, the following definitions apply:

1. " *Acceptable Point of Impingement Concentration"* means a concentration accepted by the *Ministry* as not likely to cause an adverse effect for a *Compound of Concern* that,

(a) has no *Ministry Point of Impingement Limit* and no *Jurisdictional Screening Level,* or

(b) has a concentration at a *Point of Impingement* that exceeds the *Jurisdictional Screening Level.*

With respect to the *Original ESDM Report,* the *Acceptable Point of Impingement Concentration* for a *Compound of Concern* mentioned above is the concentration set out in the *Original ESDM Report.*

2. "*Acoustic Assessment Report"* means the report, prepared in accordance with *Publication NPC-233* and Appendix A of the *Basic Comprehensive User Guide,* by Greg Conley / RWDI AIR Inc. and dated February 26, 2016 submitted in support of the application, that documents all sources of noise emissions and *Noise Control Measures* present at the *Facility,* as updated in accordance with Condition 5 of this *Approval.*

3. "*Acoustic Assessment Summary Table"* means a table prepared in accordance with the *Basic*

Comprehensive User Guide summarising the results of the *Acoustic Assessment Report,* as updated in accordance with Condition 5 of this *Approval.*

4. "*Acoustic Audit*" means an investigative procedure consisting of measurements and/or acoustic modelling of all sources of noise emissions due to the operation of the *Facility*, assessed to determine compliance with the Performance Limits for the *Facility* regarding noise emissions, completed in accordance with the procedures set in *Publication NPC-103* and reported in accordance with *Publication NPC-233.*

5. "*Acoustic Audit Report*" means a report presenting the results of an *Acoustic Audit,* prepared in accordance with *Publication NPC-233.*

6. "*Acoustical Consultant*" means a person currently active in the field of environmental acoustics and noise/vibration control, who is familiar with *Ministry* noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from a *Facility.*

7. "*Approval"* means this entire Environmental Compliance Approval and any *Schedules* to it.

8. "*Basic Comprehensive User Guide"* means the *Ministry* document titled "Basic Comprehensive Certificates of Approval (Air) User Guide" dated March 2011, as amended.

9. "*Company"* means Jefferson Elora Corporation operating as Jefferson Elora Corporation that is responsible for the construction or operation of the *Facility* and includes any successors and assigns in accordance with section 19 of the *EPA.*

10. "*Compound of Concern"* means a contaminant described in paragraph 4 subsection 26 (1) of *O. Reg. 419/05,* namely, a contaminant that is discharged from the *Facility* in an amount that is not negligible.

11. "*Description Section"* means the section on page one of this *Approval* describing the *Company's* operations and the *Equipment* located at the *Facility* and specifying the *Facility Production Limit* for the *Facility.*

12. "*Director"* means a person appointed for the purpose of section 20.3 of the *EPA* by the *Minister* pursuant to section 5 of the *EPA.*

13. "*District Manager"* means the District Manager of the appropriate local district office of the *Ministry,* where the *Facility* is geographically located.

14. "*Emission Summary Table"* means a table described in paragraph 14 of subsection 26 (1) of *O. Reg. 419/05;* namely a table in the *ESDM Report* that compares the *Point of Impingement* concentration for each *Compound of Concern* to the corresponding *Ministry Point of Impingement Limit, Acceptable Point of Impingement Concentration,* or *Jurisdictional Screening Level.*

15. "*Environmental Assessment Act"* means the Environmental Assessment Act, R.S.O. 1990, c.E.18, as amended.

16. "*EPA"* means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended.

17. "*Equipment"* means equipment or processes described in the *ESDM Report,* this *Approval* and in the *Schedules* referred to herein and any other equipment or processes.

18. "*Equipment with Specific Operational Limits"* means any *Equipment* related to the thermal oxidation of waste or waste derived fuels, fume incinerators or any other *Equipment* that is specifically referenced in any published *Ministry* document that outlines specific operational guidance that must be considered by the *Director* in issuing an *Approval.*

19. "*ESDM Report"* means the most current Emission Summary and Dispersion Modelling Report that

describes the *Facility.* The *ESDM Report* is based on the *Original ESDM Report* and is updated after the issuance of this *Approval* in accordance with section 26 of *O. Reg. 419/05* and the *Procedure Document.*

20. "*Facility"* means the entire operation located on the property where the *Equipment* is located.

21. "*Facility Production Limit"* means the production limit placed by the *Director* on the main product(s) or raw materials used by the *Facility.*

22. "*Independent Acoustical Consultant*" means an *Acoustical Consultant* who is not representing the *Company* and was not involved in preparing the *Acoustic Assessment Report* or the design/implementation of *Noise Control Measures* for the *Facility* and/or *Equipment*. The *Independent Acoustical Consultant* shall not be retained by the *Acoustical Consultant* involved in the noise impact assessment or the design/implementation of *Noise Control Measures* for the *Facility* and/or *Equipment.*

23. "*Jurisdictional Screening Level"* means a screening level for a *Compound of Concern* that is listed in the *Ministry* publication titled "Jurisdictional Screening Level (JSL) List, A Screening Tool for Ontario Regulation 419: Air Pollution - Local Air Quality", dated February 2008, as amended.

24. "*Log"* means a document that contains a record of each change that is required to be made to the *ESDM Report* and *Acoustic Assessment Report,* including the date on which the change occurred. For example, a record would have to be made of a more accurate emission rate for a source of contaminant, more accurate meteorological data, a more accurate value of a parameter that is related to a source of contaminant, a change to a *Point of Impingement* and all changes to information associated with a *Modification* to the *Facility* that satisfies Condition 2**.**

25. "*Minister"* means the Minister of the Environment and Climate Change or such other member of the Executive Council as may be assigned the administration of the *EPA* under the Executive Council Act.

26. "*Ministry"* means the ministry of the *Minister.*

27. "*Ministry Point of Impingement Limit"* means the applicable Standard set out in Schedule 2 or 3 of *O. Reg. 419/05* or a limit set out in the *Ministry* publication titled "Summary of Standards and Guidelines to support Ontario Regulation 419/05: Air Pollution - Local Air Quality (including Schedule 6 of *O. Reg. 419/05* on Upper Risk Thresholds", dated April 2012, as amended.

28. "*Modification"* means any construction, alteration, extension or replacement of any plant, structure, equipment, apparatus, mechanism or thing, or alteration of a process or rate of production at the *Facility* that may discharge or alter the rate or manner of discharge of a *Compound of Concern* to the air or discharge or alter noise or vibration emissions from the *Facility.*

29. "*Noise Control Measures"* means measures to reduce the noise emissions from the *Facility* and/or *Equipment* including, but not limited to, silencers, acoustic louvres, enclosures, absorptive treatment, plenums and barriers. It also means the noise control measures outlined in the *Acoustic Assessment Report.*

30. "*O. Reg. 419/05"* means Ontario Regulation 419/05, Air Pollution – Local Air Quality, as amended.

31. "*Original ESDM Report"* means the Emission Summary and Dispersion Modelling Report which was prepared in accordance with section 26 of *O. Reg. 419/05* and the *Procedure Document* by Jessica Campitelli (IMS Ltd.) and dated April 24, 2014 submitted in support of the application, and includes any changes to the report made up to the date of issuance of this *Approval.*

32. "*Point of Impingement"* has the same meaning as in section 2 of *O. Reg. 419/05.*

33. "*Point of Reception"* means Point of Reception as defined by *Publication NPC-300.*

34. "*Procedure Document"* means *Ministry* guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated March 2009, as amended.

35. "*Processes with Significant Environmental Aspects"* means the *Equipment* which, during regular operation, would discharge one or more contaminants into the air in an amount which is not considered as negligible in accordance with section 26 (1) 4 of *O. Reg. 419/05* and the *Procedure Document.*

36. "*Publication NPC-103*" means the *Ministry* Publication NPC-103 of the Model Municipal Noise Control By-Law, Final Report, August 1978, published by the *Ministry* as amended.

37. "*Publication NPC-207"* means the *Ministry* draft technical publication "Impulse Vibration in Residential Buildings", November 1983, supplementing the Model Municipal Noise Control By-Law, Final Report, published by the *Ministry,* August 1978, as amended.

38. "*Publication NPC-233"* means the *Ministry* Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995, as amended.

39. "*Publication NPC-300"* means the *Ministry* Publication NPC-300, "Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning, Publication NPC-300", August 2013, as amended.

40. "*Schedules"* means the following schedules attached to this *Approval* and forming part of this *Approval* namely:

Schedule A - Supporting Documentation

41. "*Toxicologist"* means a qualified professional currently active in the field of risk assessment and toxicology that has a combination of formal university education, training and experience necessary to assess contaminants.

42. "*Written Summary Form"* means the electronic questionnaire form, available on the *Ministry* website, and supporting documentation, that documents the activities undertaken at the *Facility* in the previous calendar year.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. GENERAL

1.1 Except as otherwise provided by this *Approval,* the *Facility* shall be designed, developed, built, operated and maintained in accordance with the terms and conditions of this *Approval* and in accordance with the following *Schedules* attached hereto:

Schedule A - Supporting Documentation

2. LIMITED OPERATIONAL FLEXIBILITY

2.1 Pursuant to section 20.6 (1) of the *EPA* and subject to Conditions 2.2 and 2.3 of this *Approval,* future construction, alterations, extensions or replacements are approved in this *Approval* if the future construction, alterations, extensions or replacements are *Modifications* to the *Facility* that:

(a) are within the scope of the operations of the *Facility* as described in the *Description Section* of this

Approval;

(b) do not result in an increase of the *Facility Production Limit* above the level specified in the *Description Section* of this *Approval;* and

(c) result in compliance with the performance limits as specified in Condition 4.

2.2 Condition 2.1 does not apply to,

(a) the addition of any new *Equipment with Specific Operational Limits* or to the *Modification* of any existing *Equipment with Specific Operational Limits* at the *Facility;* or

(b) *Modifications* to the *Facility* that would be subject to the *Environmental Assessment Act.*

2.3 Condition 2.1 of this *Approval* shall expire ten (10) years from the date of this *Approval,* unless this *Approval* is revoked prior to the expiry date. The *Company* may apply for renewal of Condition 2.1 of this *Approval* by including an *ESDM Report* and an *Acoustic Assessment Report* that describes the *Facility* as of the date of the renewal application.

3. REQUIREMENT TO REQUEST AN *ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION*

3.1 Prior to making a *Modification* to the *Facility* that satisfies Condition 2.1 (a) and (b), the *Company* shall prepare a proposed update to the *ESDM Report* to reflect the proposed *Modification.*

3.2 The *Company* shall request approval of an *Acceptable Point of Impingement Concentration* for a *Compound of Concern* if the *Compound of Concern* does not have a *Ministry Point of Impingement Limit* and a proposed update to an *ESDM Report* indicates that one of the following changes with respect to the concentration of the *Compound of Concern* may occur:

(a) The *Compound of Concern* was not a *Compound of Concern* in the previous version of the *ESDM Report* and

(i) the concentration of the *Compound of Concern* is higher than the *Jurisdictional Screening Level* for the contaminant; or

(ii) there is no *Jurisdictional Screening Level* for the contaminant .

(b) The concentration of the *Compound of Concern* in the updated *ESDM Report* is higher than:

(i) the most recent *Acceptable Point of Impingement Concentration,* and

(ii) the *Jurisdictional Screening Level* if a *Jurisdictional Screening Level* exists.

3.3 The request required by Condition 3.2 shall propose a concentration for the *Compound of Concern* and shall contain an assessment, performed by a *Toxicologist,* of the likelihood of the proposed concentration causing an adverse effect at *Points of Impingement.*

3.4 If the request required by Condition 3.2 is a result of a proposed *Modification* described in Condition 3.1, the *Company* shall submit the request, in writing, to the *Director* at least 30 days prior to commencing to make the *Modification.* The *Director* shall provide written confirmation of receipt of this request to the *Company.*

3.5 If a request is required to be made under Condition 3.2 in respect of a proposed *Modification* described in Condition 3.1, the *Company* shall not make the *Modification* mentioned in Condition 3.1 unless the request is approved in writing by the *Director.*

3.6 If the *Director* notifies the *Company* in writing that the *Director* does not approve the request, the

Company shall,

(a) revise and resubmit the request; or

(b) notify the *Director* that it will not be making the *Modification.*

3.7 The re-submission mentioned in Condition 3.6 shall be deemed a new submission under Condition 3.2.

3.8 If the *Director* approves the request, the *Company* shall update the *ESDM Report* to reflect the *Modification.*

3.9 Condition 3 does not apply if Condition 2.1 has expired.

4. PERFORMANCE LIMITS

4.1. Subject to Condition 4.2, the *Company* shall not discharge or cause or permit the discharge of a *Compound of Concern* into the air if,

(a) the *Compound of Concern* has a *Ministry Point of Impingement Limit* and the discharge results in the concentration at a *Point of Impingement* exceeding the *Ministry Point of Impingement Limit;* or

(b) the *Compound of Concern* does not have a *Ministry Point of Impingement Limit* and the discharge results in the concentration at a *Point of Impingement* exceeding the higher of,

(i) if an *Acceptable Point of Impingement Concentration* exists the most recent *Acceptable Point of Impingement Concentration,* and

(ii) the *Jurisdictional Screening Level* if a *Jurisdictional Screening Level* exists.

4.2 Condition 4.1 does not apply if the *Ministry Point of Impingement Limit* has a 10-minute averaging period and no ambient monitor indicates an exceedance at a *Point of Impingement* where human activities regularly occur at a time when those activities regularly occur.

4.3 The *Company* shall:

(a) implement by not later than twelve (12) months from the date of this *Approval*, the *Noise Control Measures*, as outlined in the *Acoustic Assessment Report;*

(b) ensure, subsequent to the implementation of the *Noise Control Measures* that the noise emissions from the *Facility* comply with the limits set in *Ministry Publication NPC-300;* and

(c) ensure that the *Noise Control Measures* are properly maintained and continue to provide the acoustical performance outlined in the *Acoustic Assessment Report.*

4.4 The *Company* shall ensure that the vibration emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-207.*

4.5 The *Company* shall operate any *Equipment with Specific Operational Limits* approved by this *Approval* in accordance with the *Original ESDM Report* and Conditions in this *Approval.*"

5. **DOCUMENTATION REQUIREMENTS**

5.1. The *Company* shall maintain an up-to-date *Log.*

5.2. No later than March 31 in each year, the *Company* shall update the *Acoustic Assessment Report* and shall update the *ESDM Report* in accordance with section 26 of *O. Reg. 419/05* so that the information in the reports is accurate as of December 31 in the previous year.

5.3. The *Company* shall make the *Emission Summary Table* (see section 27 of *O. Reg. 419/05)* and

Acoustic Assessment Summary Table available for examination by any person, without charge, by posting it on the Internet or by making it available during regular business hours at the *Facility.*

5.4 The *Company* shall, within three (3) months after the expiry of Condition 2.1 of this *Approval,* update the *ESDM Report* and the *Acoustic Assessment Report* such that the information in the reports is accurate as of the date that Condition 2.1 of this *Approval* expired.

5.5. Conditions 5.1 and 5.2 do not apply if Condition 2.1 has expired.

6. REPORTING REQUIREMENTS

6.1 Subject to Condition 6.2, the *Company* shall provide the *Director* no later than June 30 of each year, a *Written Summary Form* to be submitted through the *Ministry's* website that shall include the following:

(a) a declaration of whether the *Facility* was in compliance with section 9 of the *EPA, O. Reg. 419/05* and the conditions of this *Approval;*

(b) a summary of each *Modification* satisfying Condition 2.1 (a) and (b) that took place in the previous calendar year that resulted in a change in the previously calculated concentration at a *Point of Impingement* for any *Compound of Concern* or resulted in a change in the sound levels reported in the *Acoustic Assessment Summary Table* at any *Point of Reception.*

6.2 Condition 6.1 does not apply if Condition 2.1 has expired.

7. OPERATION AND MAINTENANCE

7.1 The *Company* shall prepare and implement, not later than three (3) months from the date of this *Approval,* operating procedures and maintenance programs for all *Processes with Significant Environmental Aspects,* which shall specify as a minimum:

(a) frequency of inspections and scheduled preventative maintenance;

(b) procedures to prevent upset conditions;

(c) procedures to minimize all fugitive emissions;

(d) procedures to prevent and/or minimize odorous emissions;

(e) procedures to prevent and/or minimize noise emissions; and

(f) procedures for record keeping activities relating to the operation and maintenance programs.

7.2 The *Company* shall ensure that all *Processes with Significant Environmental Aspects* are operated and maintained in accordance with this *Approval,* the operating procedures and maintenance programs.

8. COMPLAINTS RECORDING AND REPORTING

8.1 If at any time, the *Company* receives an environmental complaint from the public regarding the operation of the *Equipment* approved by this *Approval,* the *Company* shall take the following steps:

(a) Record and number each complaint, either electronically or in a log book. The record shall include the following information: the time and date of the complaint and incident to which the complaint relates, the nature of the complaint, wind direction at the time and date of the incident to which the complaint relates and, if known, the address of the complainant.

(b) Notify the *District Manager* of the complaint within two (2) business days after the complaint is

received, or in a manner acceptable to the *District Manager.*

(c) Initiate appropriate steps to determine all possible causes of the complaint, and take the necessary actions to appropriately deal with the cause of the subject matter of the complaint.

(d) Complete and retain on-site a report written within one (1) week of the complaint date. The report shall list the actions taken to appropriately deal with the cause of the complaint and set out steps to be taken to avoid the recurrence of similar incidents.

9. RECORD KEEPING REQUIREMENTS

9.1 Any information requested by any employee in or agent of the *Ministry* concerning the *Facility* and its operation under this *Approval,* including, but not limited to, any records required to be kept by this *Approval,* shall be provided to the employee in or agent of the *Ministry,* upon request**,** in a timely manner.

9.2 Unless otherwise specified in this *Approval,* the *Company* shall retain, for a minimum of five (5) years from the date of their creation all reports, records and information described in this *Approval,* including,

(a) a copy of the *Original ESDM Report* and each updated version*;*

(b) a copy of each version of the *Acoustic Assessment Report;*

(c) supporting information used in the emission rate calculations performed in the *ESDM Reports* and *Acoustic Assessment Reports;*

(d) the records in the *Log;*

(e) copies of each *Written Summary Form* provided to the *Ministry* under Condition 6.1 of this *Approval;*

(f) records of maintenance, repair and inspection of *Equipment* related to all *Processes with Significant Environmental Aspects;* and

(g) all records related to environmental complaints made by the public as required by Condition 8 of this *Approval.*

10. REVOCATION OF PREVIOUS APPROVALS

This *Approval* replaces and revokes all Certificates of Approval (Air) issued under section 9 *EPA* and Environmental Compliance Approvals issued under Part II.1 *EPA* to the *Facility* in regards to the activities mentioned in subsection 9(1) of the *EPA* and dated prior to the date of this *Approval.*

11. *ACOUSTIC AUDIT*

11.1 The *Company* shall carry out *Acoustic Audit* measurements on the actual noise emissions due to the operation of the *Facility*. The *Company*:

(a) shall carry out *Acoustic Audit* measurements in accordance with the procedures in *Publication NPC-103;*

(b) shall submit an *Acoustic Audit Report* on the results of the *Acoustic Audit,* prepared by an Independent *Acoustical Consultant*, in accordance with the requirements of *Publication NPC-233*, to the *District Manager* and the *Director*, not later than six (6) months after the full implementation of the *Noise Control Measures.*

11.2 The *Director:*

(a) may not accept the results of the *Acoustic Audit* if the requirements of *Publication NPC-233* were

not followed;

(b) may require the *Company* to repeat the *Acoustic Audit* if the results of the *Acoustic Audit* are found unacceptable to the *Director.*

SCHEDULE A

Supporting Documentation

(a) Environmental Compliance Approval Application, dated February 10, 2014, signed by Earl Browning, Plant Manager and submitted by the *Company;*

(b) Revised Emission Summary and Dispersion Modelling Report, prepared by Jessica Campitelli (IMS Ltd.) and dated February 5, 2016; and

(c) *Acoustic Assessment Report,* prepared by RWDI AIR Inc., dated February 26, 2016 and signed by Greg Conley.

The reasons for the imposition of these terms and conditions are as follows:

GENERAL

1. Condition No. 1 is included to require the *Approval* holder to build, operate and maintain the *Facility* in accordance with the Supporting Documentation in Schedule A considered by the *Director* in issuing this *Approval.*

LIMITED OPERATIONAL FLEXIBILITY, REQUIREMENT TO REQUEST AN *ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION* AND *PERFORMANCE LIMITS*

2. Conditions No. 2, 3 and 4 are included to limit and define the *Modifications* permitted by this *Approval,* and to set out the circumstances in which the *Company* shall request approval of an *Acceptable Point of Impingement Concentration* prior to making *Modifications.* The holder of the *Approval* is approved for operational flexibility for the *Facility* that is consistent with the description of the operations included with the application up to the *Facility Production Limit.* In return for the operational flexibility, the *Approval* places performance based limits that cannot be exceeded under the terms of this *Approval. Approval* holders will still have to obtain other relevant approvals required to operate the *Facility,* including requirements under other environmental legislation such as the *Environmental Assessment Act.*

DOCUMENTATION REQUIREMENTS

3. Condition No. 5 is included to require the *Company* to maintain ongoing documentation that demonstrates compliance with the *Performance Limits* of this *Approval* and allows the *Ministry* to monitor on-going compliance with these *Performance Limits.* The *Company* is required to have an up to date *ESDM Report* and *Acoustic Assessment Report* that describe the *Facility* at all times and make the *Emission Summary Table* and *Acoustic Assessment Summary Table* from these reports available to the public on an ongoing basis in order to maintain public communication with regard to the emissions from the *Facility.*

REPORTING REQUIREMENTS

4. Condition No. 6 is included to require the *Company* to provide a yearly *Written Summary Form* to the *Ministry,* to assist the *Ministry* with the review of the site's compliance with the *EPA,* the regulations

and this *Approval.*

OPERATION AND MAINTENANCE

5. Condition No. 7 is included to require the *Company* to properly operate and maintain the *Processes with Significant Environmental Aspects* to minimize the impact to the environment from these processes.

COMPLAINTS RECORDING AND REPORTING PROCEDURE

6. Condition No. 8 is included to require the *Company* to respond to any environmental complaints regarding the operation of the *Equipment,* according to a procedure that includes methods for preventing recurrence of similar incidents and a requirement to prepare and retain a written report.

RECORD KEEPING REQUIREMENTS

7. Condition No. 9 is included to require the *Company* to retain all documentation related to this *Approval* and provide access to employees in or agents of the *Ministry,* upon request, so that the *Ministry* can determine if a more detailed review of compliance with the *Performance Limits* is necessary.

REVOCATION OF PREVIOUS APPROVALS

8. Condition No. 10 is included to identify that this *Approval* replaces all Section 9 Certificate(s) of Approval and Part II.1 Approvals in regards to the activities mentioned in subsection 9(1) of the *EPA* and dated prior to the date of this *Approval.*

ACOUSTIC AUDIT

9. Condition No. 11 is included to require the *Company* to gather accurate information and submit an *Acoustic Audit Report* in accordance with procedures set in the *Ministry*'s noise guidelines, so that the environmental impact and subsequent compliance with this *Approval* can be verified.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 8226-6FJQTD issued on April 30, 2006.

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, 1993 , S.O. 1993, c. 28 (Environmental Bill of Rights), the Environmental Commissioner, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Environmental Commissioner will place notice of your appeal on the Environmental Registry. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

1. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

3. The name of the appellant;

4. The address of the appellant;
5. The environmental compliance approval number;
6. The date of the environmental compliance approval;
7. The name of the Director, and;
8. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary* Environmental Review Tribunal 655 Bay Street, Suite 1500 Toronto, Ontario M5G 1E5	AND	The Environmental Commissioner 1075 Bay Street, Suite 605 Toronto, Ontario M5S 2B1	AND	The Director appointed for the purposes of Part II.1 of the Environmental Protection Act Ministry of the Environment and Climate Change 135 St. Clair Avenue West, 1st Floor Toronto, Ontario M4V 1P5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or www.ert.gov.on.ca**

This instrument is subject to Section 38 of the Environmental Bill of Rights, 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at www.ebr.gov.on.ca , you can determine when the leave to appeal period ends.

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

DATED AT TORONTO this 11th day of May, 2016

Rudolf Wan, P.Eng.
Director
appointed for the purposes of Part II.1 of
the *Environmental Protection Act*

JK/
c: District Manager, MOECC Guelph
Jessica Campitelli, Integrated Management Solutions Ltd.

POR ID	POR Description	Time of Day	Sound Level at POR (dBA)(L_{eq}) or (dBAi)(L_{LM})	Sound Level Limit (dBA) (Leq) or (dBAi)(L_{LM})	Compliance with Sound Level Limit?	Class Number	Verified by Acoustic Audit
POR1a	Residence (yard)	Day	48	50	Yes	Class 2	No
POR2a	Residence (yard)	Day	43	50	Yes	Class 2	No
POR3a	Residence (yard)	Day	48	50	Yes	Class 2	No
POR4a	Residence (yard)	Day	43	50	Yes	Class 2	No
POR5a	Residence (yard)	Day	44	50	Yes	Class 2	No
POR1b	Single storey plane of window	Day	46	50	Yes	Class 2	No
POR2b	Two storey plane of window	Day	43	50	Yes	Class 2	No
POR3b	Single storey plane of window	Day	46	50	Yes	Class 2	No
POR4b	Two storey plane of window	Day	43	50	Yes	Class 2	No
POR5b	Two storey plane of window	Day	45	50	Yes	Class 2	No

R.J. Burnside & Associates Limited