2280 Dundas Street West

Environmental Noise & Vibration Assessment

Toronto, ON

SLR Project No: 209.30128.00000

June 2022





ENVIRONMENTAL NOISE & VIBRATION ASSESSMENT 2280 Dundas Street West Toronto, Ontario SLR Project No: 209.30128.00000

Submitted by: SLR Consulting (Canada) Ltd. 100 Stone Road West, Suite 201 Guelph, Ontario, N1G 5L3

Prepared for: Choice Properties Limited Partnership 22 St. Clair Ave. E., Suite 600 Toronto, Ontario, M4T 2S5

June 30, 2022

This document has been prepared by SLR Canada. The material and data in this report were prepared under the supervision and direction of the undersigned.

Prepared by:

Keni Mallinen, M.A.Sc., P.Eng.

Keni Wallinen

Acoustics Engineer

Reviewed by:

R.L. Scott Penton, P.Eng.

Principal, Acoustic Specialist



TABLE OF CONTENTS

1.	Intro	luction		1
	1.1	Focus of Report		1
	1.2	Nature of the Surroundings		1
	1.3	Description of Proposed Devel	opment	1
PAR	Г 1: ІМІ	ACTS OF THE ENVIRONMENT ON	THE DEVELOPMENT	2
2.	Trans	portation Noise Impacts		2
	2.1	Transportation Noise Sources .		2
	2.2	Surface Transportation Noise C	Criteria	3
		2.2.1 Ministry of Environm	nent Publication NPC-300	3
	2.3	Traffic Data and Future Project	tions	5
		2.3.1 Road Traffic Data		5
	2.4	Rail Traffic Data		6
	2.5	Predicted Sound levels		7
		2.5.1 Façade Sound Levels	5	7
		2.5.2 Outdoor Living Areas	S	10
	2.6	Façade Assessment		11
	2.7	Ventilation and Warning Clause	e Requirements	12
3.	Trans	portation Vibration Impacts		13
	3.1	Vibration Measurement Progra	am	13
	3.2	Vibration Measurement Result		14
4.	Statio	nary Source Noise Impacts		14
	4.1	Stationary Source Review		14
PAR	Г 2: ІМІ	ACTS OF THE DEVELOPMENT ON	ITSELF	15
5.	Statio	nary Source Noise Impacts on the	e Development Itself	15
PAR	Г3: ІМІ	ACTS OF THE DEVELOPMENT ON	THE SURROUNDING AREA	16
6.	Statio	nary Source Noise Impacts on Su	rrounding Area	16
7.	Concl	usion and Recommendations		16
	7.1	Transportation Noise		16
	7.2	•		
	7.3	•		
	7.4	Overall Assessment		17
8.	Refer	ences		18
9.	State	ment of Limitations		18



TABLES

Table 1:	MECP Publication NPC-300 Sound Level Criteria for Road and Rail Noise	. 3
Table 2:	MECP Publication NPC-300 Outdoor Living Area Mitigation Requirements	. 4
Table 3:	MECP Publication NPC-300 Ventilation & Warning Clause Requirements	. 4
Table 4:	MECP Publication NPC-300 Building Component Requirements	. 5
Table 5:	MECP Publication NPC-300 Rail Noise Façade Requirements	. 5
Table 6:	Summary of Road Traffic Data Used in Transportation Analysis	. 6
Table 7:	Summary of Rail Traffic Data Used in Transportation Analysis	. 7
Table 8:	Summary of Predicted Transportation Facade Sound Levels – Daytime/Night-time	. 8
Table 9:	Summary of Predicted Transportation Facade Sound Levels – 24-Hour	. 9
Table 10:	Summary of Predicted Outdoor Living Area Sound Levels	10
Table 11:	Transportation Noise – Façade STC Requirements	11

FIGURES

Figure 1: Context Plan

Figure 2: Site Plan

Figure 3: Façade Sound Levels – Road & Rail (Total) - Daytime

Figure 4: Façade Sound Levels – Road & Rail (Total) – Night-time

Figure 5: Façade Sound Levels – Rail – 24hr

Figure 6: Outdoor Living Area Sound Levels – Road & Rail (Total) - Daytime

Figure 7: Vibration Measurement Locations

Figure 8: D-6 Setback Distances & Surrounding Stationary Noise Source Locations

APPENDICES

Appendix A: Development Drawings

Appendix B: Traffic Data and Calculations

Appendix C: STAMSON Output File

Appendix D: Detailed Façade Calculations

Appendix E: Warning Clause, Ventilation and Barrier Summary

1. INTRODUCTION

SLR Consulting (SLR) was retained by Choice Properties Limited Partnership to conduct an environmental noise and vibration assessment for the proposed development at 2238, 2252, 2264, 2280 and 2288 Dundas Street West, and 104-105 Ritchie Avenue (herein referred to as "2280 Dundas Street West") in Toronto, Ontario. This report is in support of the development's Zoning Bylaw (ZBA) and Site Plan Approval (SPA) applications.

Note, SLR (then Novus Environmental) previously completed an environmental noise and vibration assessment for the development lands, with results outlined in the report entitled "Environment Noise & Vibration Assessment – Proposed 2280 Dundas Street West Development – Toronto, ON" dated October 15, 2018 (herein referred to as "the 2018 assessment"). This report is referenced in part within this assessment.

1.1 FOCUS OF REPORT

In keeping with City of Toronto and Ministry of Environment, Conservation and Parks (MECP) requirements, this report examines the potential for:

- Impacts of the environment on the proposed development;
- Impacts of the proposed development on the environment; and
- Impacts of the proposed development on itself.

1.2 NATURE OF THE SURROUNDINGS

The proposed development site is bounded by the following:

- Dundas Street West, with small commercial/retail buildings along Dundas Street West and residential homes beyond, to the west;
- Bishop Marrocco/ Tomas Merton Catholic Secondary School, with Bloor Street West and residential/institutional buildings (Sault College Toronto Campus) beyond to the north;
- A rail corridor (Weston Subdivision/Lower Galt Subdivision) with residential homes beyond to the east; and
- Residential homes, with small commercial/retail facilities along Dundas Street West and Roncesvalles Avenue beyond, to the south.

The proposed development site is zoned both Residential and Commercial Residential under the City of Toronto Zoning By-law No. 569-2013. Lands to the south are zoned Residential, and to the east, lands are zoned Utility and Transportation. To the west and north, lands are not included in the current Zoning By-law and remain zoned under the Former City of Toronto By-Law No. 438-86.

The land use to the north and west of the proposed development site is zoned Holding 20.0 (H).

A context plan is shown in **Figure 1**.

1.3 DESCRIPTION OF PROPOSED DEVELOPMENT

The proposed development is located south of the intersection of Bloor Street West and Dundas Street West in the Roncesvalles neighbourhood of Toronto. The development lands are composed of the following municipal addresses: 2238, 2252, 2264, 2280 and 2288 Dundas Street West, and 104-105

Ritchie Avenue. A context plan is provided in Figure 1.

The proposed development site currently includes a retail plaza occupied by Loblaws and the LCBO (as well as a large vacant component formerly occupied by Zellers), and a smaller retail area occupied by Coffee Time, Kal Tire and Pizza Nova. The southwest corner of the proposed development site, fronting Dundas Street West, includes a 3-storey residential building, and a 3-storey medical building with multiple retail storefronts at grade and offices above.

The proposed development will include 7 mixed use buildings ranging in height from 6-storeys to 38-storeys, as follows:

- Building 01 8-storey high podium with a 22-storey west tower (Building 01-A) and 32-storey eastern tower (Building 02-B);
- Building 02 7-storey high podium with a 38-storey tower (Building 02-A);
- Building 03 2-storey high podium with 6-storey west office tower (Building 03-Office), 24-storey east tower (Building 03-A1), and 8-storey east tower (Building 03-A2);
- Building 04 7-storey high podium with 28-storey tower (Building 04-A);
- Building 05 10-storeys in height;
- Building 06 7-storeys in height; and
- Building 07 10-storeys in height.

A site plan is provided in part as **Figure 2**, with building identifiers added by SLR for descriptive purposes. A copy of the development site plan used in the assessment is included for reference in **Appendix A**.

PART 1: IMPACTS OF THE ENVIRONMENT ON THE DEVELOPMENT

In assessing potential noise impacts associated with the proposed development, the focus of this report is to evaluate:

- Road and rail noise impacts on the development;
- Stationary source noise impacts from the commercial/industrial land uses on the development; and
- Stationary source noise impacts from the proposed development mechanical equipment onto the development itself, and onto surrounding noise-sensitive receptors.

An assessment of aircraft noise is not considered necessary as there are no airports located in the surrounding area. The proposed development is located in proximity to the Weston Subdivision and Lower Galt Subdivision to the east, and a TTC streetcar line to the west, which are potential sources of vibration. Therefore, an assessment of transportation vibration impacts was completed.

2. TRANSPORTATION NOISE IMPACTS

2.1 TRANSPORTATION NOISE SOURCES

Sources of interest with the potential to produce road traffic noise at the proposed development include:

- Dundas Street West (including Toronto Transit Commission (TTC) streetcar operations);
- Roncesvalles Avenue; and
- Bloor Street West.

Sources of interest with potential to produce rail traffic noise at the proposed development include:

- CN freight and passenger trains along the Weston Subdivision;
- Metrolinx and Union Pearson Express (UPX) trains along the Weston Subdivision; and
- Metrolinx trains along the Lower Galt Subdivision.

Road and rail noise from these sources has been predicted, and this information has been used to identify façade, ventilation, and warning clause requirements for the proposed development.

2.2 SURFACE TRANSPORTATION NOISE CRITERIA

2.2.1 MINISTRY OF ENVIRONMENT PUBLICATION NPC-300

Noise Sensitive Developments

Ministry of the Environment, Conservation and Parks (MECP) Publication NPC-300 provides sound level criteria for noise sensitive developments. The applicable portions of NPC-300 are Part C – Land Use Planning and the associated definitions outlined in Part A – Background. **Tables 1 to 4** summarize the applicable surface transportation (road and rail) criteria limits.

Location Specific Criteria

Table 1 summarizes criteria in terms of energy equivalent sound exposure (L_{eq}) levels for specific noise-sensitive locations. Both outdoor and indoor locations are identified, with the focus of outdoor areas being amenity spaces. Indoor criteria vary with sensitivity of the space. As a result, Sleeping Quarters have more stringent criteria than Living / Dining room spaces.

Table 1: MECP Publication NPC-300 Sound Level Criteria for Road and Rail Noise

Type of Space	Time Period	Equivalent Sound L _{eq} (c	Assessment Location	
		Road	Rail ^[1]	Location
Outdoor Living Area (OLA)	Daytime (0700-2300h)	55	55	Outdoors ^[2]
Living / Diving Doom	Daytime (0700-2300h)	45	40	Indoors ^[3]
Living / Dining Room	Night-time (2300-0700h)	45	40	Indoors ^[3]
Classing Quarters	Daytime (0700-2300h)	45	40	Indoors ^[3]
Sieeping Quarters	Sleeping Quarters Night-time (2300-0700h)		35	Indoors ^[3]

Notes:

- [1] Whistle noise is excluded for OLA noise assessments and included for Living / Dining Room and Sleeping Quarter assessments.
- [2] Road and Rail noise impacts are to be combined for assessment of OLA impacts.
- [3] An assessment of indoor noise levels is required only if the criteria in **Table 4** are exceeded.

Outdoor Amenity Areas

Table 2 summarizes the noise mitigation requirements for communal outdoor amenity areas ("Outdoor Living Areas" or "OLAs").

For the assessment of outdoor sound levels, the surface transportation noise impact is determined by combining road and rail traffic sound levels. Whistle noise due to railway trains is not included in the determination of sound levels.

Table 2: MECP Publication NPC-300 Outdoor Living Area Mitigation Requirements

Time Period	Equivalent Sound Level in Outdoor Living Area (dBA)	Ventilation Requirements
	<u><</u> 55	• None
Daytime (0700-2300h)	56 to 60 incl.	Noise barrier OR Warning Clause A
(0700-230011)	> 60	 Noise barrier to reduce noise to 55 dBA OR Noise barrier to reduce noise to 60 dBA and Warning Clause B

Ventilation and Warning Clauses

Table 3 summarizes requirements for ventilation where windows potentially would have to remain closed as a means of noise control. Despite implementation of ventilation measures where required, if sound exposure levels exceed the guideline limits in **Table 1**, warning clauses advising future occupants of the potential excesses are required. Warning clauses also apply to OLAs.

Building Shell Requirements

Table 4 provides sound level thresholds which, if exceeded, require the building shell and components (i.e., wall, windows) to be designed and selected accordingly to ensure that the applicable indoor sound criteria are met.

Table 3: MECP Publication NPC-300 Ventilation & Warning Clause Requirements

Assessment	Time Period		ivalent Sound evel - L _{eq} (dBA)	Ventilation and Warning Claus Requirements [2]								
Location		Road	Rail ^[1]	warning Claus Requirements •								
Outdoor Living Area	Daytime (0700-2300h)	56 to 60 incl.		56 to 60 incl.		56 to 60 incl.		56 to 60 incl.		56 to 60 incl.		Type A Warning Clause
		≤	55	None								
	Daytime (0700-2300h)	56 to 65 incl.		Forced Air Heating /provision to add air conditioning + Type C Warning Clause								
Plane of Window		> 65		Central Air Conditioning + Type D Warning Clause								
	Night-time (2300-0700h)	51 to	60 incl.	Forced Air Heating/ provision to add air conditioning + Type C Warning Clause								
		> 60		> 60		Central Air Conditioning + Type D Warning Clause						

Notes:

^[1] Rail whistle noise is excluded.

^[2] Road and Rail noise is combined for determining Ventilation and Warning Clause requirements.

Table 4: MECP Publication NPC-300 Building Component Requirements

Assessment	Time Period		t Sound Exposure _{eq} (dBA))	Component Requirements	
Location		Road	Rail ^[1]		
Plane of	Daytime (0700-2300h)	> 65	> 60	Designed/ Selected to Meet	
Window	Night-time (2300-0700h)	> 60	> 55	Indoor Requirements ^[2]	

In addition to the building component criteria outlined in **Table 4**, NPC-300 also includes a façade construction requirement for rail noise only, outlined in **Table 5**. The façade construction requirements are necessary only if the proposed development is located in the first row of dwellings adjacent to the rail corridor.

Table 5: MECP Publication NPC-300 Rail Noise Façade Requirements

Assessment Location	Distance to Railway	L _{eq} (24hr) ^{[1], [2]} (dBA)	Noise Control Requirements
	Less than 100m	<u><</u> 60	No additional requirement
Plane of Bedroom	Less than 100m	> 60	Brick Veneer or Acoustic Equivalent Required
Window	Greater than 100m	<u><</u> 60	No additional requirement
		> 60	No additional requirement

Notes:

2.3 TRAFFIC DATA AND FUTURE PROJECTIONS

2.3.1 ROAD TRAFFIC DATA

Turning movement counts were obtained from the City of Toronto's Open Data Portal. Future year (2035) AADT volumes were obtained by converting total 8-hr TMC volumes to AADT volumes, and projecting data forward to the design year at a 2.0% growth rate. Commercial vehicle percentages were calculated based on the TMC data. Day/night splits were based on the USEPA hourly distribution for urban roadways.

For streetcars, SLR contacted the TTC in May 2022 to request updated traffic counts. Due to TTC staffing issues, data was not available at the time of publication of this report. The streetcar routes adjacent to the proposed development are also currently diverted, with buses in use instead of streetcars, so revised estimates from online website schedules are not available. Therefore, this assessment has been completed using previously obtained streetcar volumes from the 2018 environmental noise and vibration assessment.

Copies of all traffic data used, and calculations are provided for reference in **Appendix B**. **Table 6** summarizes the road traffic volumes used in the analysis.

^[1] Including whistle noise.

^[2] Building component requirements are assessed separately for Road and Railway noise. The resultant sound isolation parameter is required to be combined to determine and overall acoustic parameter.

^[1] Assessed for proposed developments located within the first row of dwellings adjacent to the rail corridor.

^[2] Assessment including whistle noise.

Table 6: Summary of Road Traffic Data Used in Transportation Analysis

	2035 Traffic Volumes ^[1]	% Day/ Night Volume Split		Commercial Vehicle Traffic ^[2]		Vehicle Speed	
Roadway Link	(AADT)	Daytime	Night-time	% Medium Trucks	% Heavy Trucks	(km/h)	
Bloor Street West	33,280	88.6	11.4	2.6	1.2	40	
Dundas Street West (north of Roncesvalles Avenue)	32,513	88.6	11.4	3.4	1.1	40	
Dundas Street West (southeast of Roncesvalles Avenue)	19,453	88.6	11.4	3.3	1.3	40	
Roncesvalles Avenue	11,692	88.6	11.4	7.4	1.1	40	
TTC Streetcars [3]	682	89.0	11.0			30	

2.4 RAIL TRAFFIC DATA

CN rail traffic data for the Weston Subdivision was previously obtained for the 2018 assessment. SLR staff contacted CN and confirmed that the data used in the previous assessment is still applicable; refer to **Appendix B**. Rail traffic volumes and details from 2018 were projected to future year 2035 at a growth rate of 2.5%. This growth is commonly applied in rail transportation noise assessments.

Metrolinx provided future forecasted rail volume data for GO Train/Union Pearson Express (UPX) traffic along the Weston Subdivision and GO Train traffic along the Lower Galt Subdivision. Forecasted rail traffic volumes were used in the assessment. All GO train locomotives were assumed to be diesel powered, and UPX trains were assumed to be Diesel Multiple Units (DMUs).

The rail traffic data used in the assessment is summarized in **Table 7**.

Rail traffic data and correspondence are provided for reference in **Appendix B**.

The nearby rail crossings are grade-separated from the roadways. Therefore, whistle noise was not considered in the assessment.

^[1] Traffic data were projected to year 2035 at a growth rate of 2.0%.

^[2] Total commercial vehicle traffic percentages calculated from turning movement count data. Ratio of medium to heavy trucks based on historical data from the SLR database, considering average ratios for non-industrial areas in the Greater Toronto Area (GTA).

^[3] TTC streetcar data from 2018 was used in the assessment, considering traffic along the 504 King, 505 Dundas and 306 Carlton (night) TTC routes.

Table 7: Summary of Rail Traffic Data Used in Transportation Analysis

	Tanin Tana	Max. Loco.	Max. Cars	Number of Trains (Year 2035)		Max. Speed
Railway Source	Train Type	per Train	per Train	Daytime (0700-2300h)	Night-time (2300-0700h)	(km/hr)
	CN Passenger (diesel)	2	10	7	4	129
Weston Subdivision	Metrolinx/GO (diesel)	2	12	128	24	129
	UPX (DMU) ^[2]	3		768	216	129
Lower Galt Subdivision	Metrolinx/GO (diesel)	1	12	38	6	80

2.5 PREDICTED SOUND LEVELS

Future road traffic sound levels at the proposed development were predicted using Cadna/A, a commercially available noise propagation modelling software. Roadways were modelled as line sources of sound, with sound emission rates calculated using the ORNAMENT algorithms, the road traffic noise model of the MECP. These predictions were validated and are equivalent to those made using the MECP's ORNAMENT or STAMSON v5.04 road traffic noise models. A STAMSON validation file is included for reference in **Appendix C**.

Rail traffic sound levels at the proposed development were predicted using the U.S. Department of Transportation Federal Transit Administration ("FTA") and Federal Railway Administration ("FRA") rail noise modelling algorithms included in the Cadna/A software. The FTA/FRA algorithms are the replacement models for the former MECP "STEAM" model and are written into the current draft version of MECP Publication NPC-306, which will replace the current NPC-206 guideline on transportation noise prediction. The FTA/FRA algorithms have been used in numerous Environmental Assessments ("EAs") for Metrolinx and CPR railway projects, as well as in numerous land use planning projects across the province.

Sound levels were predicted along the facades of the proposed development using the "building evaluation" feature of Cadna/A. This feature allows for noise levels to be predicted across the entire façade of a structure. Each building floor was assumed to be 3 m in height in the absence of elevation drawings.

2.5.1 FAÇADE SOUND LEVELS

Predicted transportation façade sound levels for the development, showing the ranges of predicted daytime and night-time sound levels are shown in **Figure 3** (daytime) and **Figure 4** (night-time). 24-hour sound levels for the first row of buildings from the rail corridor (Buildings 02, 04, 07) are presented in **Table 9** and **Figure 5**.

The daytime/night-time façade road and rail traffic sound levels are predicted to be above the thresholds described in **Table 4** at several locations within the proposed development therefore, an assessment of building components is required. Refer to **Section 2.6**.

Furthermore, the 24-hour sound levels exceed 60 dBA for the first row of dwellings adjacent to the rail corridor. Therefore, upgraded exterior wall construction (brick veneer or masonry equivalent construction). This is considered in **Section 2.6.**

^[1] Rail traffic data provided by CN for year 2018 was project 2035 at a 2.5% growth rate.

^[2] Metrolinx data represents forecasted future volumes. Additional correspondence with Metrolinx confirmed UPX trains contain up to three (3) DMUs each.

Table 8: Summary of Predicted Transportation Facade Sound Levels – Daytime/Night-time

		Road Sound Levels (dBA) ^[2]		Rail Sound Levels (dBA) ^[2]		Combined Road & Rail Sound Levels (dBA) ^[2]	
Assessment	Façade [1]	(dB	A) ^[2]	(dB	A) ^[2]	Sound Levi	eis (abA) ⁽²⁾
Location		L _{eq} Day (dBA)	L _{eq} Night (dBA)	L _{eq} Day (dBA)	L _{eq} Night (dBA)	L _{eq} Day (dBA)	L _{eq} Night (dBA)
	North	67	61	62	58	67	61
Building 01	East	53	47	61	57	62	58
Podium	South	66	60	56	52	66	61
	West	67	62	48	44	68	62
	North	60	54	58	54	62	57
Building 01-A	East	50	45	58	54	59	55
Tower	South	59	54	54	49	60	55
	West	64	58	48	44	64	58
	North	56	50	63	59	63	59
Building 01-B	East	51	46	63	59	63	59
Tower	South	52	47	59	55	60	56
	West	56	50	50	46	57	51
	North	56	50	70	66	70	66
Building 02	East	55	49	71	67	71	67
Podium	South	48	42	66	62	66	62
	West	52	46	52	48	55	51
	North	55	49	67	63	68	64
Building 02-A	East	53	47	70	66	70	66
Tower	South	46	40	65	61	65	62
	West	53	47	55	51	57	52
	North	66	60	58	54	66	60
Building 03	East	46	40	58	54	58	54
Podium	South	66	60	55	51	66	60
	West	67	61	47	43	68	62
	North	52	46	59	55	59	55
Building 03-A1	East	48	42	61	57	61	57
Tower	South	53	47	58	54	58	54
	West	56	50	49	45	57	51
	North ^[3]	-	-	-	-	-	-
Building 03-A2	East	44	38	57	53	57	53
Tower	South	50	44	54	50	55	51
	West	49	43	49	45	52	47
	North	52	46	70	66	70	66
Building 04	East	52	46	71	67	71	67
Podium	South	44	38	67	63	67	63
	West	44	39	54	50	54	50
	North	51	45	69	65	69	66
Building 04-A	East	51	45	70	66	70	67
Tower	South	45	39	66	62	66	62
	West	46	40	54	50	54	50

Assessment	Façade ^[1]	Road Sound Levels (dBA) ^[2]		Rail Sound Levels (dBA) ^[2]		Combined Road & Rail Sound Levels (dBA) ^[2]	
Location	rayaue · ·	L _{eq} Day (dBA)	L _{eq} Night (dBA)	L _{eq} Day (dBA)	L _{eq} Night (dBA)	L _{eq} Day (dBA)	L _{eq} Night (dBA)
	North	66	61	57	53	67	61
Building OF	East	44	38	57	53	57	53
Building 05	South	62	56	56	52	62	56
	West	67	61	47	43	67	62
	North	49	44	57	52	57	53
D:Idia = 0C	East	40	34	57	53	57	53
Building 06	South	41	35	57	53	57	53
	West	45	39	49	45	51	46
	North	49	43	70	66	70	66
D:Idia = 07	East	49	43	71	67	71	67
Building 07	South	41	35	65	61	65	61
	West	43	38	53	49	53	49
	North	66	60	53	49	66	60
Building 03	East	39	33	48	44	49	45
Office	South	66	60	52	48	66	60
	West	67	61	47	43	68	62

- [1] Façade locations are shown in Figure 3 (daytime) and Figure 4 (night-time)
- [2] The sound levels presented are the highest total for the façade. The highest sound level may not necessarily be the sum of the highest road and rail traffic sound levels, due to the orientation/location of the sources relative to the façade locations.
- $\label{eq:continuous} \begin{tabular}{ll} [3] The north façade of the tower attaches to the taller adjacent residential tower, and therefore is not exposed. \\ \end{tabular}$

Table 9: Summary of Predicted Transportation Facade Sound Levels – 24-Hour

Assessment Location ^[1]	Façade	24-Hour Rail Sound Levels (dBA) ^[2]
	North	69
Building 02	East	70
Podium	South	65
	West	51
	North	66
Building 02-A	East	69
Tower	South	64
	West	54
	North	69
Building 04	East	70
Podium	South	66
	West	53
D 1111 04 4	North	68
Building 04-A Tower	East	69
Tower	South	65

Assessment Location ^[1]	Façade	24-Hour Rail Sound Levels (dBA) ^[2]
	West	53
Building 07	North	69
	East	70
	South	64
	West	52

2.5.2 OUTDOOR LIVING AREAS

The Outdoor Living Areas (OLA) of the proposed development have not been established. For assessment of OLA sound levels, three locations were selected to align with the Pedestrian Level Wind study by SLR, provided under a separate cover.

Three (3) OLA locations were assessed:

- OLA 1 represents an elevated roof terrace between Building 01 towers, Building 01-A (west) and Building 01-B (east)
- OLA 2 represents an elevated rooftop terrace west of the Building 02 tower (i.e., Building 02-A)
- OLA 3 represents an elevator rooftop terrace above the 8-storey tower associated with Building 03 (i.e., Building 03-A2)

The predicted transportation noise impacts are shown in Figure 6 and summarized in Table 10 below.

Table 10: Summary of Predicted Outdoor Living Area Sound Levels

		Transportation Sound Levels			
ID Location	Location	Road - L _{eq} Day (dBA)	Rail - L _{eq} Day (dBA)	Total (Road + Rail) - L _{eq} Day (dBA)	
OLA 1	Building 01-A Rooftop Terrace	44	52	53	
OLA 2	Building 02 Rooftop Terrace	45	54	54	
OLA 3	Building 03-A2 Rooftop Terrace	42	56	56	

Sound levels are predicted to be below 55 dBA at OLA 1 and 2; therefore, no noise control measures or warning clauses are required for those locations. For OLA 3, the predicted sound level is 56 dBA; therefore, a **Type A** warning clause is required.

Once the proposed development has been sufficiently designed and actual OLA locations established, outdoor sound levels should be reviewed to confirm daytime sound levels, barrier requirements, and warning clause requirements.

^[1] Assessment locations represent the first row of dwellings within 100 m of the rail corridor.

^[2] Façade locations are shown in Figure 5.

2.6 FAÇADE ASSESSMENT

Based on the values presented in Error! Reference source not found, predicted sound levels along some facades exceed the values in Error! Reference source not found, for road and rail noise, respectively. Therefore, wall and window construction to achieve the indoor sound level requirements as outlined in NPC-300 have been determined.

Indoor sound levels and required Sound Transmission Class (STC) ratings for façade components were estimated using the procedures outlined in the National Research Council Building Practice Note 56. This document provides a method to estimate the STC ratings required based on road and rail noise.

Calculations for all façade locations are provided for reference in **Appendix D**. Detailed architectural floor plans and elevation drawings were not yet available the time of this study. The following assumptions were therefore made in the assessment:

- Window wall construction with glazing and glass spandrel panel elements, except for Buildings 02/02-A, Building 04/04-A, and Building 07 that require brick veneer or masonry equivalent (i.e., an exterior wall rating of STC 54);
- For living/dining rooms, 70% of the exterior wall is vision glass/patio doors;
- For bedrooms, 50% of the exterior wall is vision glass;
- Non-glazing portions of the wall (i.e., glass spandrel panel) has an assumed STC rating of 45;
- Living rooms were assumed to be 3 m x 6 m in size with intermediate absorption;
- Bedrooms were assumed to be 3 m x 3 m in size with intermediate absorption

Glazing STC requirements are summarized in **Table 11** for locations where the sound levels exceeded those prescribed in **Table 4** for either road or rail sound levels.

Table 11: Transportation Noise – Façade STC Requirements

Building	Façade	Non-Vision Glazing Portion of Facade	Glazing Requirements (Windows and Patio Doors)[1],[2]		
			Living/Dining Room (STC)	Bedroom (STC)	
Building 01 Podium	North	45	OBC	31	
	East	45	OBC	OBC	
	South	45	OBC	OBC	
	West	45	OBC	OBC	
Building 01-B Tower	North	45	OBC	30	
	East	45	OBC	30	
Building 02 Podium	North	54	34	38	
	East	54	35	38	
	South	54	30	33	
Building 02-A Tower	North	54	32	35	
	East	54	34	38	
	South	54	30	33	
Building 03 Podium	North	45	OBC	OBC	
	South	45	OBC	OBC	
	West	45	OBC	OBC	

Building	Façade	Non-Vision Glazing Portion of Facade	Glazing Requirements (Windows and Patio Doors)[1],[2]		
			Living/Dining Room (STC)	Bedroom (STC)	
Building 03-A1 Tower	East	45	OBC	OBC	
Building 04 Podium	North	54	34	38	
	East	54	35	38	
	South	54	31	35	
Building 04-A Tower	North	54	34	37	
	East	54	35	38	
	South	54	30	33	
Building 05	North	45	OBC	OBC	
	West	45	OBC	OBC	
Building 07	North	54	34	38	
	East	54	35	38	
	South	54	OBC	32	

[1] OBC = Ontario Building Code. Window construction meeting the minimum non-acoustic requirements of the Ontario Building Code (i.e., thermal and structural requirements) is predicted to be sufficient. Equivalent to a glazing element with a rating of STC 29. [2] Corner units with two exposed facades may require an increase in STC rating of up to 3 points. These requirements should be reviewed by an Acoustical Consultant during the detailed design phase of the project.

Where upgraded glazing is required, the combined glazing and frame assembly must be constructed to ensure the overall sound isolation performance of the entire window unit meets the specified STC rating. It is recommended that the window manufacturer's test data be reviewed to confirm the required acoustical performance is achieved.

The building façade requirements should be reviewed by an acoustical consultant in detail when detailed floor plans and elevations are available.

2.7 VENTILATION AND WARNING CLAUSE REQUIREMENTS

The triggers for requiring ventilation-related warning clauses are summarized in **Table 2**. Where required, the warning clauses should be included in agreements registered on Title for the residential units and included in all agreements of purchase and sale or lease, and all rental agreements.

Based on the predicted façade noise levels, forced air heating with provisions for future installation of central air conditioning, and an MECP **Type C** warning clause, is recommended for all residential units in Building 06.

Residential units in all other development buildings (i.e., all buildings besides Building 06) require central air conditioning for noise control purposes along with an MECP **Type D** warning clause.

As all buildings in the proposed development are within 300 m of the rail corridor right-of-way, **CN** and **Metrolinx** warning clauses are also required for all residential units.

Warning clauses requirements for the proposed development are summarized in Appendix E.

3. TRANSPORTATION VIBRATION IMPACTS

There is no specific MECP guideline with respect to railway vibration for land use approvals. Both CN and Metrolinx/GO Transit have published their own criteria, and both require that vibration impact assessments be conducted to ensure that adverse vibration impacts do not occur. The document entitled 'Guidelines for New Development in Proximity to Railway Operations' prepared by the Federation of Canadian Municipalities (FCM) and the Railway Association of Canada (RAC) is also applicable for rail-generated vibration, and therefore used as a reference tool of best practices for rail-adjacent developments. Both CN and Metrolinx/GO endorse the FCM/RAC guidelines, and require the following with respect to rail vibration:

- Ground-borne vibration transmission to be evaluated in a report through site testing to determine
 if dwellings within 75 metres of the railway rights-of-way will be impacted by vibration conditions
 in excess of 0.14 mm/sec Root Mean Square (RMS) between 4 Hz and 200 Hz.
- The monitoring system should be capable of measuring frequencies between 4 Hz and 200 Hz, + 3 dB with an RMS averaging time constant of 1 second.
- If in excess, vibration isolation measures will be required to ensure living areas do not exceed 0.14 mm/sec RMS on and above the first floor of the dwelling.

Furthermore, with respect to TTC streetcars, there are no MECP vibration guidelines for land use approvals. Additionally, the TTC has not specified vibration limits or criteria for developments surrounding its infrastructure. However, the MECP has published criteria for specific TTC transit projects in the past and has draft criteria for general transit projects in the Province of Ontario.

Both the former MOECC/TTC 1993 "Protocols for Noise and Vibration Assessment" and the MOECC 2010 Draft "Guideline for Noise and Vibration Assessment of Transit Projects" require that vibration levels from TTC vehicle pass-by events, measured in terms of root-mean-square (RMS) vibration, should not exceed 0.10 mm/s at the point of reception, which in this case would be the proposed building foundations.

3.1 VIBRATION MEASUREMENT PROGRAM

The Dundas Street TTC streetcars operate immediately west of the proposed development site along the existing roadway. There are 3 major routes that use the streetcar tracks: the 504 King, 306 Carlton, and 505 Dundas lines. CN Passenger and various Metrolinx GO/UPX trains operate to the east of the facility along the Weston Subdivision/Lower Galt Subdivision railway corridor. As the development lands are less than 75 m from the streetcar line and railway corridor, respectively, a detailed transportation vibration assessment was performed.

Vibration levels were measured as part of the 2018 assessment to determine vibration levels of streetcar and train pass-by events at the west and east sides of the proposed development site. Site visits were conducted on December 12, 2017 and March 13, 2018 by SLR (formerly Novus Environmental) staff to conduct measurements of ground-borne vibrations from rail pass-by events on the proposed development site. Vibration measurement data was collected at two separate locations.

The first measurement location was along the eastern fence line of the proposed development site, at a setback distance of approximately 25 m from the nearest rail track of the Weston Subdivision/Lower Galt Subdivision. This location was chosen to be approximately the setback distance of the closed façade of the buildings in the 2018 assessment, which were closer to the tracks than the proposed development buildings at the east side of the site discussed in this report (i.e., Buildings 02, 04 and 07, approximately 35 m from

the nearest rail track).

The second location, used to measure vibration generated by TTC streetcars, was on the east sidewalk along Dundas Street West. This measurement location was situated closer to the streetcar line than the buildings in the 2018 assessment, and this remains applicable for the proposed development.

The measurement locations are shown in Figure 7.

Several measurements were taken of each type of source (trains/streetcars) to quantify the potential vibration impacts. The data were post-processed to compute the 1-second sliding window RMS amplitudes of vibration velocity in units of mm/s.

As both measurement locations were closer to the respective vibration sources (streetcar and railway) than the proposed development buildings, if vibration levels at those locations were below the applicable criteria, they were assumed to also be below the criteria at locations further from the sources.

3.2 VIBRATION MEASUREMENT RESULTS

Measured vibration levels due train pass-by events along the Weston Subdivision/Lower Galt Subdivision ranged between 0.02 mm/s RMS to 0.08 mm/s RMS at the location shown in **Figure 7**. This range is well below the applicable limits of 0.14 mm/s RMS, at a location closer to the rail tracks than the proposed development buildings at the east side of the site.

The streetcars along Dundas Street West resulted in measured vibration level in the range of 0.05 mm/s RMS. Measured values attributable to streetcar operations alone were below the applicable limits of 0.10 mm/s RMS, at a location closer to the streetcar tracks than the proposed development buildings at the west side of the site. A few higher vibration levels were measured, but these were likely due to non-streetcar traffic travelling over the streetcar rail lines along Dundas Street West or cars in the parking lot of the proposed development site driving over potholes or curbs; these data points were considered invalid data.

Vibration levels from both the TTC streetcars and the trains on the Weston Subdivision/Lower Galt Subdivision are expected to meet the respective criteria of 0.10 mm/s and 0.14 mm/s RMS at the nearest residential locations associated with the proposed development. Therefore, no vibration mitigation measures are recommended.

4. STATIONARY SOURCE NOISE IMPACTS

4.1 STATIONARY SOURCE REVIEW

A review has been conducted to assess potential impacts on the development from nearby stationary noise sources. A site visit was completed by SLR personnel for the 2018 assessment on December 12, 2017 and March 13, 2018, and updated aerial imagery of the site and surrounding area was reviewed for this report. The proposed development is primarily surrounded by commercial and residential lands. No significant stationary noise sources were identified within the surrounding area during the site visits or desktop review.

Furthermore, the MECP Guideline D-6 Potential Influence Areas were reviewed, to identify possible stationary sources with potential to impact the proposed development. The nearest stationary sources in proximity to the proposed development are commercial/retail facilities along Dundas Street West and Bloor Street, and these are considered to be Class I light industries based on the D-6 guidelines (with a 70 m area of influence). The Bishop Marrocco/Thomas Merton Catholic School is also located immediately north of

the proposed development site, as shown in **Figure 8**, along with the 70 m (Class I) and 300 m (Class II) setback distances.

Potential noise sources associated with the small commercial facilities and the school are HVAC and cooling equipment. Due to the intervening distances and high ambient sound levels in the area, no adverse noise impacts are predicted at the proposed development from these sources. Nonetheless, a **Type E** warning clause is recommended for all residential units; refer to **Appendix E**.

Class II and Class III industries within 300 m and 1000 m of the proposed development include Nestle Canada Inc. and Nitta Gelatin, respectively.

The Nestle Canada Inc. facility is located approximately 225 m to the southeast. The facility holds an MECP Environmental Compliance Approval (ECA) Number 4910-8NFRZV dated September 18, 2012, and an Environmental Activity and Sector Registry (EASR) permit Number R-002-9157189068 filed September 12, 2012. Therefore, emissions from the facility are obligated to meet applicable sound level limits at several intervening noise-sensitive points of reception in accordance with these approvals, and adverse noise impacts at the proposed development are not expected.

Nitta Gelatin Canada Inc. is located approximately 555 m northeast of the proposed development. The facility holds an MECP EASR Number R-010-1113159456 (filed April 30, 2021). Although the proposed development lands are within 1000 m of this industry, it is outside the minimum 300 m separation distance, with several other blocks of intervening noise-sensitive receptors include mid-rise/high-rise buildings at Bloor Street West, east of Symington Avenue. Emissions from the facility are obligated to meet applicable sound level limits at more exposed intervening receptors in accordance with their approvals, and adverse noise impacts at the proposed development are not expected.

PART 2: IMPACTS OF THE DEVELOPMENT ON ITSELF

5. STATIONARY SOURCE NOISE IMPACTS ON THE DEVELOPMENT ITSELF

At the time of this assessment, the mechanical systems for the proposed development have not been sufficiently designed to conduct a detailed assessment of stationary source impacts on the development itself.

For common mechanical systems that will be implemented as part of the proposed development, the impacts from all noise-generating equipment should comply with the guideline limits in MECP Publication NPC-300. The potential impacts of mechanical equipment to be included with proposed development (such as make-up air units, cooling towers, parking garage exhaust fans, emergency generators) should be assessed as part of the final building design. The sound level criteria can be met at all on-site receptors through appropriate selection of mechanical equipment, by locating equipment with sufficient setback from noise sensitive locations, and by incorporating control measures (e.g., silencers) into the design. This can be confirmed either later in the site plan approval process, or at the building permit approval stages.

It is recommended that the mechanical systems be reviewed by an acoustical consultant prior to final equipment selection.

If individual air conditioning systems are to be implemented for each residential unit within the proposed development site, the sound levels from each unit should comply with guidelines included in MECP Publication NPC-216.

PART 3: IMPACTS OF THE DEVELOPMENT ON THE SURROUNDING AREA

6. STATIONARY SOURCE NOISE IMPACTS ON SURROUNDING AREA

With respect to the noise environment of the area, it is expected that the proposed development will have a negligible effect on neighbouring noise-sensitive properties.

Traffic related to the proposed development will be small relative to the existing traffic volumes within the area and is not of concern with respect to potential noise impacts.

Other noise sources associated with the development with possible adverse impacts on the surrounding neighbourhood are mechanical equipment (e.g., make up air units, cooling units, and parking garage exhaust fans). Sound levels due to operation of these sources are required to meet MECP Publication NPC-300 requirements at all off-site noise sensitive receptors.

Off-site impacts are not anticipated given the elevated ambient sound levels in the area, and because systems will be designed to ensure that the applicable noise guidelines are met at on-site receptors.

Regardless, potential impacts should be assessed as part of the final building design to ensure compliance. The criteria can be met at all surrounding and on-site receptors though the use of routine mitigation measures, including the appropriate selection of mechanical equipment, by locating equipment with sufficient setback from noise sensitive locations, and by incorporating control measures (e.g., silencers, barriers) into the design.

It is recommended that the mechanical systems be reviewed by an accredited acoustical consultant prior to final selection of equipment.

7. CONCLUSION AND RECOMMENDATIONS

The potential for noise impacts on and from the proposed development have been assessed. Impacts of the environment on the development, the development on itself, and the development on the surrounding area have been considered. Based on the results of this assessment, the following conclusions have been reached:

7.1 TRANSPORTATION NOISE

- An assessment of transportation noise impacts from surrounding roads and railways has been completed.
- Based on transportation façade sound levels upgraded glazing exterior wall construction and glazing is required at some locations within the proposed development, as outlined in outlined in Section 2.5.1.

- Noise impacts within the common outdoor amenity areas are predicted to be within acceptable levels, as outlined in **Section 2.5.2**.
 - Outdoor sound levels should be verified when the development has been sufficiently designed and OLA locations confirmed
- Ventilation and warning clauses are outlined in **Section 2.5**, and summarized as follows:
 - Type A warning clauses are required as outlined in Section 2.5.2 for Buildings 01, 02, and 03-
 - o Provision for Air Conditioning and a **Type C** warning clause are required for Building 6.
 - o Central Air Conditioning and a **Type D** warning clause are required for all other Buildings.
 - o Type E, CN and Metrolinx warning clauses are required for all development Building.
- The Warning Clauses should be included in agreements registered on Title for the residential units and included in agreements of purchase and sale/rental agreements. Warning clause requirements are summarized in **Appendix E**.

7.2 TRANSPORTATION VIBRATION

- Vibration measurement of TTC streetcar and rail-traffic pass-by events along the Weston Subdivision/Lower Galt Subdivision were performed.
- Vibration levels were below applicable criteria, and no mitigation is required, as outlined in **Section 3.2**.

7.3 STATIONARY SOURCE NOISE

- A review of the surrounding stationary noise sources was completed by SLR personnel during site visits to the area and through available aerial photography. No significant stationary noise sources were identified during the site visit by SLR personnel.
- The development is surrounded by noise sensitive buildings. Noise impacts are not expected to be of concern.

7.4 OVERALL ASSESSMENT

- Impacts of the environment on the proposed development can be adequately controlled without upgraded glazing and the inclusion of ventilation and warning clause requirements, detailed in Part 1 of this report.
- Impacts of the proposed development on itself are not anticipated and can be adequately controlled by following the design guidance outlined in **Part 2** of this report.
- Impacts of the proposed development on the surroundings are expected to meet the applicable guideline limits and can be adequately controlled by following the design guidance outlined in Part 3 of this report.
- As the mechanical systems for the proposed development have not been designed in detail, the acoustical design should be reviewed by an acoustical consultant later in the site plan approval process, or as part of the final building design.

8. REFERENCES

International Organization for Standardization, ISO 9613-2: Acoustics – Attenuation of Sound During Propagation Outdoors Part 2: General Method of Calculation, Geneva, Switzerland, 1996.

National Research Council, Building Practice Note 56: *Controlling Sound Transmission into Buildings*, Canada 1985.

Novus Environmental. "Environment Noise & Vibration Assessment – Proposed 2280 Dundas Street West Development – Toronto, ON". October 15, 2018.

Ontario Ministry of the Environment, Conservation and Parks, 1989, Ontario Road Noise Analysis Method for Environment and Transportation (ORNAMENT).

Ontario Ministry of the Environment, Conservation and Parks, Publication NPC-300: *Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning*, 2013.

Ontario Ministry of the Environment, Conservation and Parks, 1996, STAMSON v5.03: Road, Rail and Rapid Transit Noise Prediction.

9. STATEMENT OF LIMITATIONS

This report has been prepared and the work referred to in this report has been undertaken by SLR Consulting (Canada) Ltd. (SLR) for Choice Properties Limited Partnership, referred to as the "Client". It is intended for the sole and exclusive use of the Client. The report has been prepared in accordance with the Scope of Work and agreement between SLR and the Client. Other than by the Client and by the City of Toronto in their role as land use planning approval authorities, copying or distribution of this report or use of or reliance on the information contained herein, in whole or in part, is not permitted unless payment for the work has been made in full and express written permission has been obtained from SLR.

This report has been prepared in a manner generally accepted by professional consulting principles and practices for the same locality and under similar conditions. No other representations or warranties, expressed or implied, are made.

Opinions and recommendations contained in this report are based on conditions that existed at the time the services were performed and are intended only for the client, purposes, locations, time frames and project parameters as outlined in the Scope or Work and agreement between SLR and the Client. The data reported, findings, observations and conclusions expressed are limited by the Scope of Work. SLR is not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. SLR does not warranty the accuracy of information provided by third party sources.



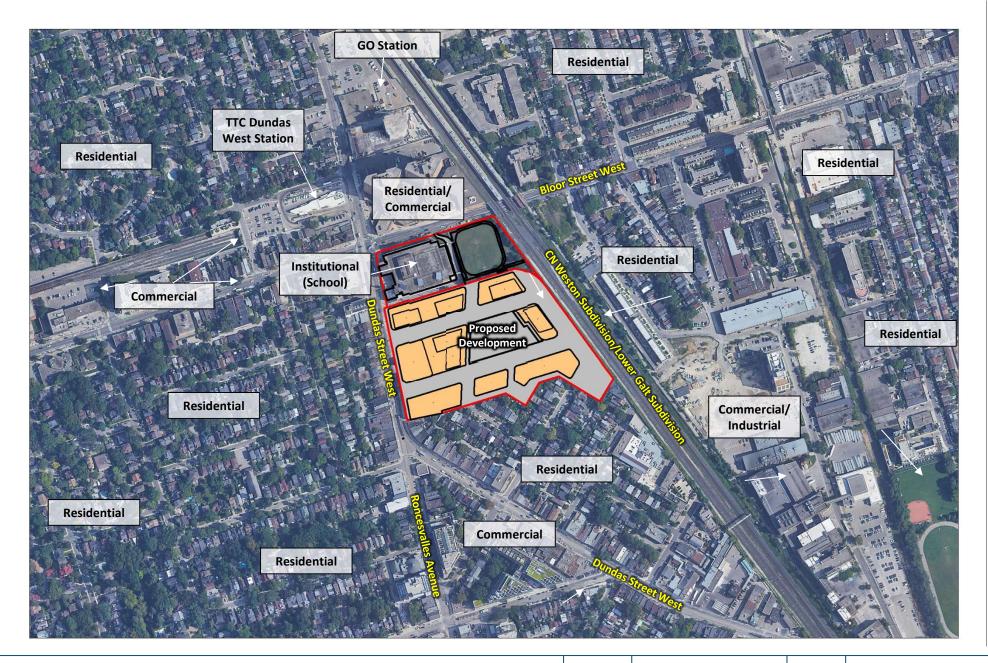
Environmental Noise and Vibration Assessment

2280 Dundas Street West Toronto, ON

SLR Project No.: 209.30128.00000



This page intentionally left blank for 2-sided printing purposes



2280 DUNDAS STREET WEST, TORONTO

CONTEXT PLAN

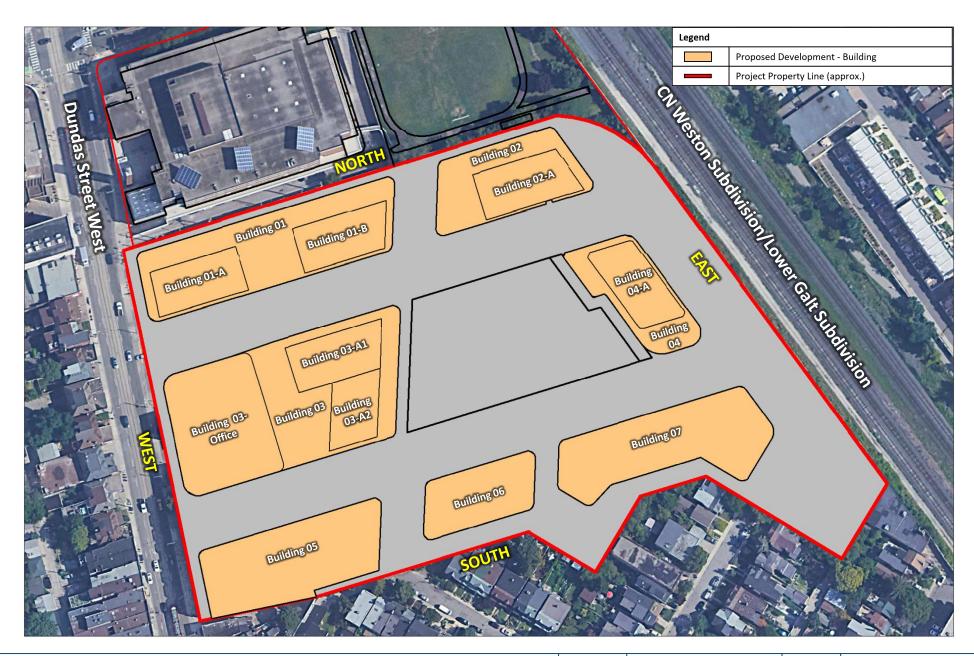
True North

Scale:

1:5000 **METRES**

Date: Jun. 30, 2022 Rev 1.0 Figure No.

global environmental solutions



2280 DUNDAS STREET WEST, TORONTO

SITE PLAN

True North

Scale:	1:1	500	METRES
Date: Jun. 30, 2022	Rev	1.0	Figure No.
			2





2280 DUNDAS STREET WEST, TORONTO

FAÇADE SOUND LEVELS – ROAD & RAIL (TOTAL) – DAYTIME

True North

Scale:

METRES

3

1:1500

Date: Jun. 30, 2022 | Rev 1.0 | Figure No.





2280 DUNDAS STREET WEST, TORONTO

FAÇADE SOUND LEVELS – ROAD & RAIL (TOTAL) – NIGHT-TIME

True North

Scale:

METRES 1:1500

Date: Jun. 30, 2022 | Rev 1.0 | Figure No.

4





2280 DUNDAS STREET WEST, TORONTO

FAÇADE SOUND LEVELS - RAIL - 24-HOUR

True	North

Scale:

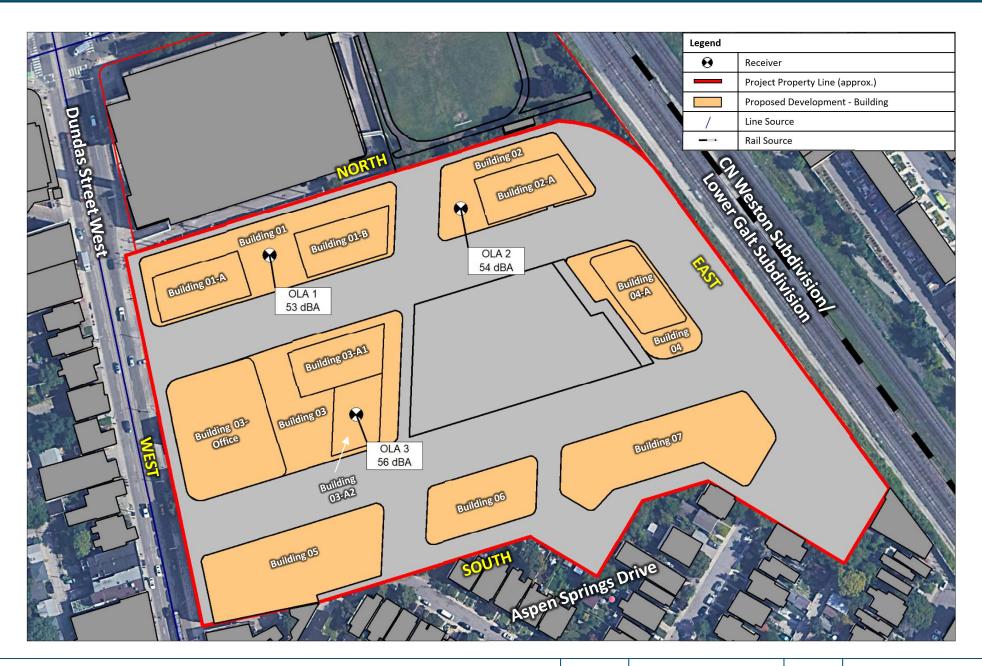
METRES 1:1500

Date: Jun. 30, 2022 | Rev 1.0 | Figure No.

Project No. 209.30128.00000

4





2280 DUNDAS STREET WEST, TORONTO

OUTDOOR LIVING AREA SOUND LEVELS - ROAD & RAIL (TOTAL) - DAYTIME

True North

Scale:

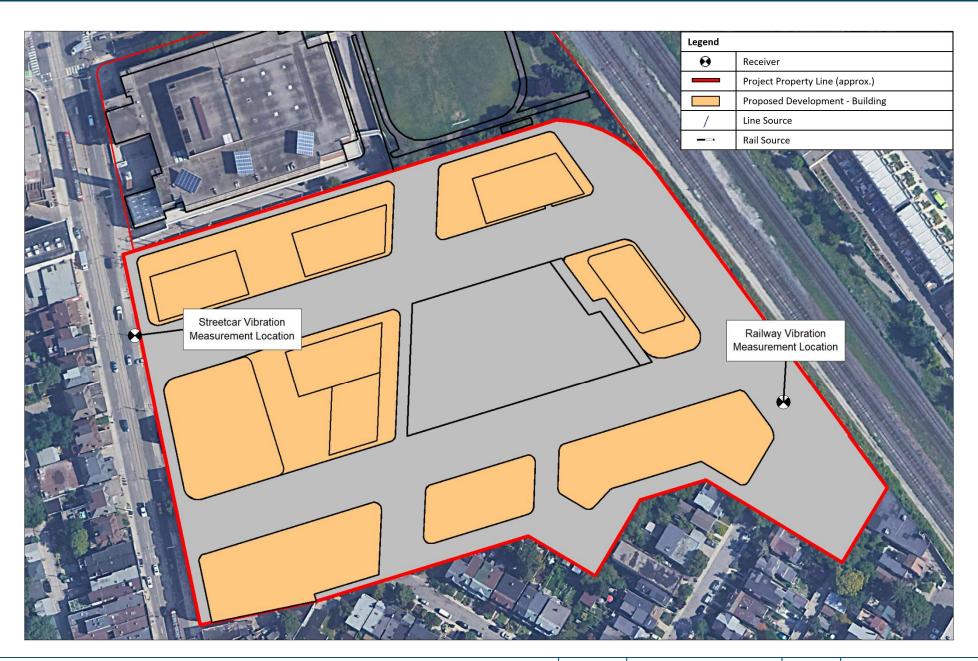
1:1500

METRES

Date: Jun. 30, 2022 | Rev 1.0 | Figure No.

6

global environmental solutions



2280 DUNDAS STREET WEST, TORONTO

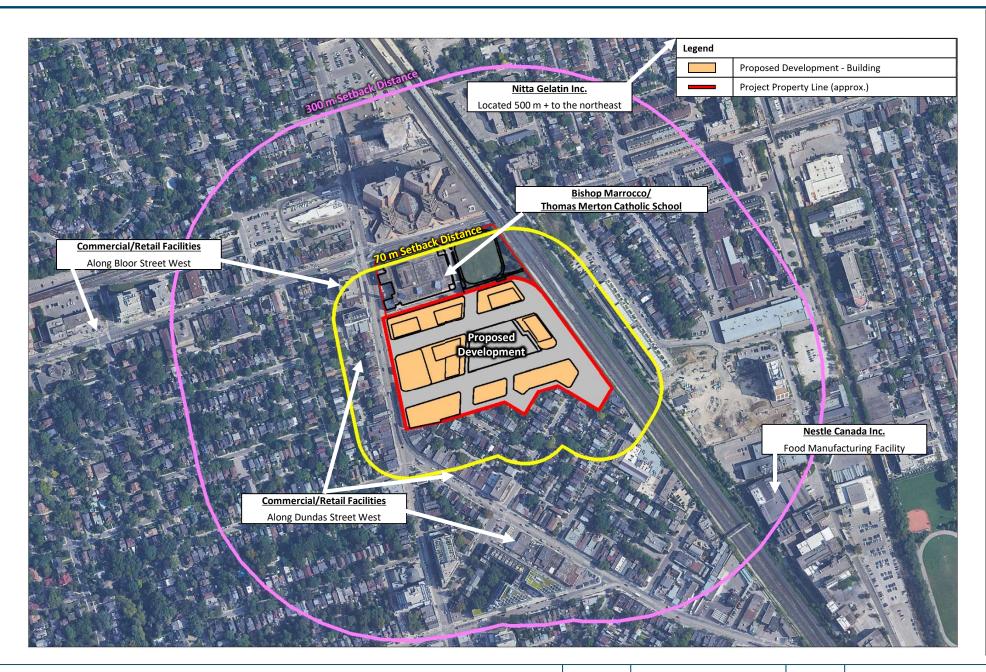
VIBRATION MEASUREMENT LOCATIONS

True North



Scale:	1:1500	METRES
Date: Jun. 30. 2022	Rev 1.0	Figure No





2280 DUNDAS STREET WEST, TORONTO

D-6 SETBACK DISTANCES & SURROUNDING STATIONARY SOURCE LOCATIONS

True North

Scale:

1:5000 **METRES**

Date: Jun. 30, 2022 | Rev 1.0 | Figure No.

Project No. 209.30128.00000

8





Environmental Noise and Vibration Assessment

2280 Dundas Street West

Toronto, ON

SLR Project No.: 209.30128.00000



This page intentionally left blank for 2-sided printing purposes



This page intentionally left blank for 2-sided printing purposes



Traffic Data and Calculations

Environmental Noise and Vibration Assessment

2280 Dundas Street West

Toronto, ON

SLR Project No.: 209.30128.00000



This page intentionally left blank for 2-sided printing purposes

count_id	count_date	e location_id	d location	time_start	time_end	sb_cars_r	sb_cars_t	sb_cars_l	nb_cars_r nb_cars_t	nb_cars_l	wb_cars_r	wb_cars_t	wb_cars_I eb_cars_r	eb_cars_t	eb_cars_l	sb_truck_r	sb_truck_t sb_truck_l	nb_truck_r	nb_truck_t	nb_truck_l	wb_truck_r	wb_truck_l	eb_truck_r	eb_truck_t	eb_truck_i	sb_bus_t	l_sud_ds	nb_bus_r	J_sna_dn	wb_bus_r	wb_bus_t	wb_bus_l eb_bus_r	eb_bus_t	eb_bus_l
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 07:30:00-05:00	2019-01-15 07:45:00-05:00	11	183	1	18 67	0	23	130 1	6 44	212	6	0	5 0	0	3	0	0 0	0	1	6 (0 0	2	3	0	2 0	3	0	0 1	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 07:45:00-05:00	2019-01-15 08:00:00-05:00	10	189	0	37 88	0	26	133 1	6 46	246	3	0	1 0	2	7	0	0 7	1	0	9 (0 0	5	2	0	5 0	2	0	0 0	4	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 08:00:00-05:00	2019-01-15 08:15:00-05:00	9	194	0	35 97	0	28	131 2	0 48	219	6	0	5 0	1	3	0	1 1	. 1	3	3 (0 0	4	3	0	2 0	4	2	0 1	1	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 08:15:00-05:00	2019-01-15 08:30:00-05:00	9	186	1 4	40 96	0	24	129 1	7 39	246	5	0	7 0	0	2	0	1 4	1	2	8 (0 0	4	3	0	6 0	2	0	0 2	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 08:30:00-05:00	2019-01-15 08:45:00-05:00	14	199	0 4	43 100	0 (26	144 1	5 59	262	8	0	2 0	0	2	0	0 0	1	2	9	1 0	4	2	1	3 0	3	0	0 0	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 08:45:00-05:00	2019-01-15 09:00:00-05:00	7	179	0	29 108	3 0	22	136 1	8 39	244	6	0	1 0	0	2	0	0 1	. 0	1	4	1 0	4	4	0	5 0	4	0	0 0	0	1
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 09:00:00-05:00	2019-01-15 09:15:00-05:00	15	144	0 4	40 84	0	15	104 1	8 41	. 252	7	0	5 0	1	0	0	0 2	0	1	11	1 0	4	1	0	3 0	2	1	0 0	1	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 09:15:00-05:00	2019-01-15 09:30:00-05:00	21	147	0	37 74	0	23	138 2	1 42	231	. 7	0	3 0	0	1	0	1 4	0	3	8 (0 1	2	3	0	1 0	2	0	0 0	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 10:00:00-05:00	2019-01-15 10:15:00-05:00	17	104	1	35 87	0	30	90 2	20 34	167	8	0	3 0	1	5	0	2 5	0	4	6	1 0	4	2	0	3 0	2	0	0 0	1	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 10:15:00-05:00	2019-01-15 10:30:00-05:00	15	122	0	27 124	1 0	26	106 1	8 32	151	. 7	0	1 0	1	8	0	1 4	3	1	8	1 0	5	1	0	4 0	1	0	0 0	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 10:30:00-05:00	2019-01-15 10:45:00-05:00	18	115	0	27 102	2 1	20	83 1	5 25	112	11	1	3 0	0	4	0	2 6	1	2	5 (0 0	3	1	0	2 0	1	0	0 0	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 10:45:00-05:00	2019-01-15 11:00:00-05:00	18	103	2	25 82	1	28	96 1	8 32	154	8	2	5 0	0	8	0	1 7	1	0	6	1 0	3	2	0 -	4 0	3	0	0 0	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 11:00:00-05:00	2019-01-15 11:15:00-05:00	12	91	2	20 88	2	17	112 2	20 33	114	10	0	8 0	1	2	0	2 9	0	2	8	3 0	3	2	0	6 0	1	0	0 0	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 11:15:00-05:00	2019-01-15 11:30:00-05:00	12	100	0	29 123	3 1	24	81 1	33	122	11	0	7 1	0	6	0	0 7	1	0	6 (0 0	4	1	0	3 0	2	0	0 0	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 11:30:00-05:00	2019-01-15 11:45:00-05:00	23	91	1	29 130	0 0	33	107 1	15 40	127	16	1	5 1	0	6	0	2 3	2	1	2	2 0	3	2	0	3 0	1	0	0 0	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 11:45:00-05:00	2019-01-15 12:00:00-05:00	21	89	0	25 96	1	33	100 1	8 31	. 97	8	2	4 0	1	4	0	1 8	0	2	3	1 0	5	1	0	3 0	1	0	0 0	1	0
38255	1/15/2019		BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 13:00:00-05:00	2019-01-15 13:15:00-05:00	9	91	1	23 99	2	28	110 1	43	104	8	1	3 0	0	5	0	0 6	0	0	3 (0 0	3	3	0	4 0	3	0	0 0	0	0
38255	1/15/2019		BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 13:15:00-05:00	2019-01-15 13:30:00-05:00	11	84	1 4	40 102	2 0	24	107 2	22 32	111	. 20	0	4 0	0	3	0	0 1	2 1	2	3 (0 0	1	1	0	3 0	2	0	0 0	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 13:30:00-05:00	2019-01-15 13:45:00-05:00	17	104	2	26 116	5 1	23	129 1	7 23	132	14	0	4 0	0	6	0	1 5	0	2	2	0 0	6	1	0	3 0	1	0	0 0	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 13:45:00-05:00	2019-01-15 14:00:00-05:00	12	78	2	21 122	2 2	28	126 1	9 43	110	14	0	1 0	1	6	0	1 6	0	2	7 (0 0	3	2	0	5 0	3	0	0 0	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 14:00:00-05:00	2019-01-15 14:15:00-05:00	20	92	1	27 140) 2	21	124 2	24 38	104	9	0	5 0	0	3	1	0 5	1	0	4 (0 0	5	2	1	5 0	1	0	0 0	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 14:15:00-05:00	2019-01-15 14:30:00-05:00	19	91	2	32 142	2 1	18	141 1	14 36	124	13	0	3 0	0	7	0	0 4	1	0	0 (0 0	4	1	0	2 0	2	0	0 0	2	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 14:30:00-05:00	2019-01-15 14:45:00-05:00	21	115	0	36 143	3 0	32	129 1	1 28	123	10	0	3 0	0	3	0	0 1	0 0	1	2 (0 0	2	2	0	5 0	2	3	0 0	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 14:45:00-05:00	2019-01-15 15:00:00-05:00	14	96	0 4	41 171	l 1	27	155 2	0 44	120	14	2	0 0	0	3	0	3 3	0	0	5 (0 0	5	1	0	2 0	1	0	0 0	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 16:00:00-05:00	2019-01-15 16:15:00-05:00	17	110	0	29 217	7 0	42	179 2	24 26	154	7	1	1 0	0	3	0	1 5	0	0	2 (0 1	3	2	0	5 0	2	1	0 0	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 16:15:00-05:00	2019-01-15 16:30:00-05:00	14	111	0 4	43 203	3 0	50	182 2	2 45	146	8	0	1 0	0	2	0	2 4	0	0	1 (0 0	6	2	0	4 0	2	1	1 1	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 16:30:00-05:00	2019-01-15 16:45:00-05:00	12	97	0	27 222	2 1	46	182 3	35	189	12	0	2 0	1	3	0	2 3	1	1	0 (0 0	2	2	1	2 0	2	0	0 0	0	0
38255	1/15/2019		BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 16:45:00-05:00	2019-01-15 17:00:00-05:00	7	121	0	34 217	7 0	57	225 3	3 26	158	10	0	1 0	0	1	0	1 3	0	1	1 (0 0	4	4	0	4 0	2	0	0 0	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 17:00:00-05:00	2019-01-15 17:15:00-05:00	10	94	3	34 195	0	45	183 2	24 39	161	. 17	0	2 0	2	1	0	0 5	0	0	1 (0 0	6	2	0	6 0	3	0	0 0	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 17:15:00-05:00	2019-01-15 17:30:00-05:00	13	129	1	35 227	7 0	43	173 2	9 43	221	13	0	2 0	0	2	0	3 2	0	0	1 (0 0	4	2	0	6 0	1	0	0 0	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 17:30:00-05:00	2019-01-15 17:45:00-05:00	6	119	0	35 191	l 1	53	189 3				0	0 0	0	3	0	0 3	0	0	2 (0 0	7	2	0	3 0	3	0	0 0	0	0
38255	1/15/2019	4032	BLOOR ST W AT DUNDAS ST W (PX 327)	2019-01-15 17:45:00-05:00	2019-01-15 18:00:00-05:00	11	110	3 4	40 189	9 4	59	184 3	35	142	17	1	0 0	0	1	0	1 2	0	0	0 (0 0	1	2	0	2 0	1	0	0 0	0	0

count_id	count_date	location_io	l location	time_start time_end		sb_cars_t	sb_cars_l	nb_cars_r	nb_cars_t	wb_cars_r	wb_cars_t	wb_cars_i	eb_cars_r eb_cars_t	eb_cars_l	sb_truck_r	sb_truck_t	nb_truck_r	nb_truck_t	nb_truck_l	wb_truck_r	wb_truck_t wb_truck_I	eb_truck_r	eb_truck_t	eb_truck_l	sb_bus_t	l_sud_ds	nb_bus_r	nb_bus_t	l_sud_dn	wb_bus_t	wb_bus_l	eb_bus_r	eb_bus_l
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 07:30:00-05:00 2015-04-08 07:45:00	05:00	46	139	0	39 0	75	0 () (0 0	0	0	0 2	. 0	0	0	1	0 0	0	0	0 () 5	5	0	5	0 2	2 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 07:45:00-05:00 2015-04-08 08:00:00	05:00	59	172	0	45 0	81	0 () (0 0	0	0	0 4	0	2	0	1	0 0	0	0	0 (8 (4	0	9	0 :	. 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 08:00:00-05:00 2015-04-08 08:15:00	05:00	66	161	0	50 0	93	0 0) (0 0	0	0	2 2	. 0	0	0	3	0 0	0	0	0 (6	3	0	6	0 3	3 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 08:15:00-05:00 2015-04-08 08:30:00	05:00	57	153	0	48 0	81	0 0) (0 0	0	0	3 2	. 0	0	0	4	0 0	0	0	0 (7	2	0	6	0 3	3 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 08:30:00-05:00 2015-04-08 08:45:00	05:00	65	170	0	57 0	73	0 0) (0 0	0	0	2 1	. 0	1	0	5	0 0	0	0	0 () 4	3	0	2	0 2	2 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 08:45:00-05:00 2015-04-08 09:00:00	05:00	76	149	0	56 0	76	0 0) (0 0	0	0	1 4	0	0	0	4	0 0	0	0	0 (3	2	0	4	0 2	2 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 09:00:00-05:00 2015-04-08 09:15:00	05:00	60	143	0	79 0	70	0 0) (0 0	0	0	1 4	0	3	0	4	0 0	0	0	0 () 2	2	0	1	0 1	. 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 09:15:00-05:00 2015-04-08 09:30:00	05:00	57	112	0	78 0	83	0 0) (0 0	0	0	2 1	0 0	1	0	1	0 0	0	0	0 () 4	0	0	6	0 1	. 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 10:00:00-05:00 2015-04-08 10:15:00	05:00	67	84	0	63 0	73	0 0) (0 0	0	0	2 5	0	2	0	3	0 0	0	0	0 (7	1	0	5	0 (0 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 10:15:00-05:00 2015-04-08 10:30:00	05:00	59	75	0	50 0	70	0 0) (0 0	0	0	3 3	0	2	0	4	0 0	0	0	0 () 4	1	0	5	0 2	2 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 10:30:00-05:00 2015-04-08 10:45:00	05:00	44	101	0	38 0	71	0 0) (0 0	0	0	5 1	1 0	1	0	3	0 0	0	0	0 (3	2	0	4	0 2	2 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 10:45:00-05:00 2015-04-08 11:00:00	05:00	52	90	0	54 0	88	0 0) (0 0	0	0	0 5	0	0	0	9	0 0	0	0	0 () 4	1	0	1	0 3	3 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 11:00:00-05:00 2015-04-08 11:15:00	05:00	63	76	0	52 0	64	0 () (0 0	0	0	3 6	0	5	0	1	0 0	0	0	0 (3	3	0	5	0 :	. 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 11:15:00-05:00 2015-04-08 11:30:00	05:00	53	78	0	61 0	77	0 () (0 0	0	0	4 5	0	1	0	3	0 0	0	0	0 () 4	2	0	2	0 2	2 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 11:30:00-05:00 2015-04-08 11:45:00	05:00	52	84	0	52 0	72	0 () (0 0	0	0	0 1	. 0	1	0	3	0 0	0	0	0 () 2	1	0	3	0 :	. 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 11:45:00-05:00 2015-04-08 12:00:00	05:00	56	72	0	48 0	81	0 0) (0 0	0	0	1 5	0	3	0	4	0 0	0	0	0 (3	3	0	6	0 2	2 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 13:00:00-05:00 2015-04-08 13:15:00	05:00	48	97	0	44 0	78	0 () (0 0	0	0	2 7	0	2	0	4	0 0	0	0	0 (3	1	0	3	0 :	. 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 13:15:00-05:00 2015-04-08 13:30:00	05:00	46	108	0	56 0	81	0 0) (0 0	0	0	2 3	0	4	0	3	0 0	0	0	0 (3	1	0	4	0 2	2 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 13:30:00-05:00 2015-04-08 13:45:00	05:00	68	75	0	43 0	111	0 0) (0 0	0	0	2 3	0	2	0	4	0 0	0	0	0 () 4	1	0	1	0 1	. 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 13:45:00-05:00 2015-04-08 14:00:00	05:00	65	87	0	50 0	92	0 0) (0 0	0	0	0 4	0	3	0	3	0 0	0	0	0 () 2	1	0	1	0 1	. 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 14:00:00-05:00 2015-04-08 14:15:00	05:00	66	71	0	49 0	99	0 0) (0 0	0	0	1 4	0	0	0	3	0 0	0	0	0 () 2	1	0	7	0 1	. 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 14:15:00-05:00 2015-04-08 14:30:00	05:00	60	85	0	54 0	103	0 0) (0 0	0	0	5 4	0	0	0	2	0 0	0	0	0 () 4	2	0	4	0 2	2 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 14:30:00-05:00 2015-04-08 14:45:00	05:00	76	95	0	59 0	100	0 0) (0 0	0	0	0 1	. 0	2	0	1	0 0	0	0	0 (6	2	0	3	0 1	. 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 14:45:00-05:00 2015-04-08 15:00:00	05:00	61	80	0	55 0	94	0 0) (0 0	0	0	1 0	0	6	0	3	0 0	0	0	0 () 2	1	0	5	0 3	3 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 16:00:00-05:00 2015-04-08 16:15:00	05:00	68	93	0	63 0	143	0 0) (0 0	0	0	0 2	. 0	3	0	2	0 0	0	0	0 () 4	2	0	4	0 3	3 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 16:15:00-05:00 2015-04-08 16:30:00	05:00	69	106	0	78 0	142	0 0) (0 0	0	0	0 1	. 0	0	0	3	0 0	0	0	0 (3	2	0	4	0 2	2 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 16:30:00-05:00 2015-04-08 16:45:00	05:00	67	102	0	74 0	156	0 0) (0 0	0	0	1 2	0	1	0	2	0 0	0	0	0 () 4	4	0	5	0 2	2 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 16:45:00-05:00 2015-04-08 17:00:00	05:00	77	111	0	59 0	146	0 0) (0 0	0	0	1 2	0	2	0	0	0 0	0	0	0 (6	1	0	5	0 2	2 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 17:00:00-05:00 2015-04-08 17:15:00	05:00	67	107	0	67 0	151	0 0) (0 0	0	0	1 1	. 0	1	0	1	0 0	0	0	0 (3	2	0	2	0 3	3 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 17:15:00-05:00 2015-04-08 17:30:00	05:00	71	110	0	56 0	177	0 0) (0 0	0	0	0 1	. 0	3	0	1	0 0	0	0	0 () 2	3	0	1	0 2	2 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 17:30:00-05:00 2015-04-08 17:45:00	05:00	72	83	0	58 0	152	0 () (0 0	0	0	0 0	0	1	0	2	0 0	0	0	0 () 2	2	0	7	0 3	3 0	0	0 0	0
32135	4/8/2015	4866	DUNDAS ST AT RONCESVALLES AVE (PX 1305)	2015-04-08 17:45:00-05:00 2015-04-08 18:00:00	05:00	74	106	0	66 0	145	0 0) (0 0	0	0	0 2	. 0	0	0	2	0 0	0	0	0 (6	3	0	5	0 (0	0	0 0	0



Train Count Data

System Engineering Engineering Services

1 Administration Road Concord, ON, L4K 1B9 T: 905.669.3264

F: 905.760.3406

TRANSMITTAL

To: Destinataire :	Novus Environmental 150 Research Lane, Suit 105, Guelph, ON N1G 4T2	Project :	WTN-3.84 – 2280 Dundas St W, Toronto, ON
Att'n:	Jafar Al-Khalaf	Routing:	jafara@novusenv.com
From: Expéditeur :	Michael Vallins	Date:	01/22/2018
Cc:	Adjacent Development CN via e-mail		
Urgent	For Your Use For 1	Review	For Your Information 🔲 Confidential
Re: Train Toronto, (ston Su	bdivision near Dundas St W in
Metrolinx T invoiced.	raffic. The application fee have any questions, pleas	e in the a	fic Data; this data does not reflect GO amount of \$500.00 +HST will be hesitate to contact the undersigned at
Sincerely, CN Design 8	& Construction		
	lins P.Eng Public Works ks_gld@cn.ca		

Project Number: WTN-3.84 – 2280 Dundas St W, Toronto, ON

Dear Jafar Al-Khalaf:

Date: 2018/01/22

Re: Train Traffic Data – CN Weston Subdivision near Dundas St W in Toronto, ON

The following is provided in response to Jafar Al-Khalaf 2018/01/11 request for information regarding rail traffic in the vicinity of Dundas St W in Toronto at approximately Mile 3.84 on CN's Weston Subdivision.

Typical daily traffic volumes are recorded below. However, traffic volumes may fluctuate due to overall economic conditions, varying traffic demands, weather conditions, track maintenance programs, statutory holidays and traffic detours that when required may be heavy although temporary. For the purpose of noise and vibration reports, train volumes must be escalated by 2.5% per annum for a 10-year period.

Typical daily traffic volumes at this site location are as follows:

*Maximum train speed is given in Miles per Hour

	0700-2300			
Type of Train	Volumes	Max.Consist	Max. Speed	Max. Power
Freight	0	140	25	4
Way Freight	0	25	25	4
Passenger	4	10	80	2

	2300-0700			
Type of Train	Volumes	Max.Consist	Max. Speed	Max. Power
Freight	0	140	25	4
Way Freight	0	25	25	4
Passenger	2	10	80	2

The volumes recorded reflect westbound and eastbound freight and passenger operations on CN's Weston Subdivision.

Except where anti-whistling bylaws are in effect, engine-warning whistles and bells are normally sounded at all at-grade crossings. There are no at-grade crossing in the immediate vicinity of the study area at Mile 3.84. Anti-whistling bylaws are not in effect at this crossing. Please note that engine warning whistles may be sounded in cases of emergency, as a safety and or warning precaution at station locations and pedestrian crossings and occasionally for operating requirements.

With respect to equipment restrictions, the gross weight of the heaviest permissible car is 286,000 lbs.

The double mainline track is considered to be continuously welded rail throughout the study area.

The Canadian National Railway continues to be strongly opposed to locating developments near railway facilities and rights-of-way due to potential safety and environmental conflicts. Development adjacent to the Railway Right-of-Way is not appropriate without sound impact mitigation measures to reduce the incompatibility. For confirmation of the applicable rail noise, vibration and safety standards, Adjacent Development, Canadian National Railway Properties at Proximity@cn.ca should be contacted directly.

I trust the above information will satisfy your current request.

Sincerely,

Michael Vallins P.Eng Manager of Public Works public_works_gld@cn.ca

Keni Mallinen

From: Umair Naveed < Umair.Naveed@cn.ca > on behalf of GLD-Permits < permits.gld@cn.ca >

Sent: May 13, 2022 4:19 PM

To: Keni Mallinen

Subject: RE: Rail Traffic Data Request for Noise Study - Bloor Street/Dundas Street West, Toronto

(SLR Project: 209.30128.00000)

Good Afternoon

The Attached data is still valid.

Thanks,

Team GLD

From: Keni Mallinen kmallinen@slrconsulting.com

Sent: Friday, May 13, 2022 1:58 PM **To:** GLD-Permits cpermits.gld@cn.ca>

Subject: RE: Rail Traffic Data Request for Noise Study - Bloor Street/Dundas Street West, Toronto (SLR Project:

209.30128.00000)

CAUTION: This email originated from outside CN: DO NOT click links or open attachments unless you recognize the sender AND KNOW the content is safe.

AVERTISSEMENT : ce courriel provient d'une source externe au CN : NE CLIQUEZ SUR AUCUN lien ou pièce jointe à moins de reconnaître l'expéditeur et c

Good day,

My apologies for the quick follow-up on this.

It turns out we have previous data for this portion of the CN Weston Subdivision used in the previous study for the same development site, from 2018.

Before purchasing new data, would you be able to first comment on whether the attached data would still be applicable for use in our noise study?

Thank you and best regards, Keni



Keni Mallinen, P.Eng.

Acoustics Engineer

0 +1 226 706 8080

C +1 226 203 7385

E kmallinen@slrconsulting.com

SLR Consulting (Canada) Ltd.





Confidentiality Notice and Disclaimer

This communication and any attachment(s) contain information which is confidential and may also be legally privileged. It is intended for the exclusive use of the recipient(s) to whom it is addressed. If you have received this communication in error, please e-mail us by return e-mail and then delete the e-mail from your system together with any copies of it. Any views or opinions are solely those of the author and do not represent those of SLR Management Ltd, or any of its subsidiaries, unless specifically stated.

From: Keni Mallinen

Sent: May 05, 2022 4:57 PM

To: permits.gld@cn.ca

Subject: Rail Traffic Data Request for Noise Study - Bloor Street/Dundas Street West, Toronto (SLR Project:

209.30128.00000)

Good day,

We are working on an update to a noise study in the vicinity of Bloor Street West and Dundas Street West (2280 Dundas Street West). The site is relatively close to the Bloor GO/UPX Station. I have attached an aerial image of the approximate site location for reference.

Do you have rail traffic data available for purchase for this location?

Please let me know if you require any further information regarding this request.

Thank you, Keni

Keni Mallinen

From: Rail Data Requests < Rail DataRequests@metrolinx.com>

Sent: May 10, 2022 10:44 AM

To: Keni Mallinen

Subject: RE: Rail Traffic Data Request for Noise Study - Bloor Street/Dundas Street West, Toronto

Hi Keni,

Further to your request dated May 05, 2022, the subject lands (2280 Dundas St West) are located within 300 metres of the Metrolinx Weston Subdivision (which carries Kitchener and UP Express rail service) and Metrolinx Lower Galt Subdivision (which carries Milton GO rail service).

It's anticipated that GO rail service on this Subdivision will be comprised of diesel and electric trains. The GO rail fleet combination on this Subdivision will consist of up to 2 locomotives and 12 passenger cars. The typical GO rail weekday train volume forecast near the subject lands, including both revenue and equipment trips is in the order of 524 trains. The planned detailed trip breakdown is listed below:

Weston Subdivision (which carries Kitchener GO rail service)

	1 Diesel Locomotive	2 Diesel Locomotives		1 Diesel Locomotive	2 Diesel Locomotives
Day (0700-2300)	92	36	Night (2300-0700)	22	2

It's anticipated that UP Express rail service at this location will be electrified and comprised of up to three (3) passenger cars. The planned detailed trip breakdown is listed below:

	1 Electric Locomotive		1 Electric Locomotive
Day (0700-2300)	256	Night (2300-0700)	72

The current track design speed near the subject lands is 80 mph (129 km/h).

Metrolinx Lower Galt Subdivision

	1 Diesel Locomotive		1 Diesel Locomotive
Day (0700-2300)	38	Night (2300-0700)	6

The current track design speed near the subject lands is 50 mph (80 km/h).

With respect to future electrified rail service, Metrolinx is committed to finding the most sustainable solution for electrifying the GO rail network and we are currently working towards the next phase.

Options have been studied as part of the Transit Project Assessment Process (TPAP) for the GO Expansion program, currently in the procurement phase. The successful proponent team will be responsible for selecting and delivering the right trains and infrastructure to unlock the benefits of GO Expansion. The contract is in a multi-year procurement process and teams are currently completing the bids that will close in 2021. GO Expansion construction will get underway in 2022.

However, we can advise that train noise is dominated by the powertrain at lower speeds and by the wheel- track interaction at higher speeds. Hence, the noise level and spectrum of electric trains is expected to be very similar at higher speeds, if not identical, to those of equivalent diesel trains.

Given the above considerations, it would be prudent at this time, for the purposes of acoustical analyses for development in proximity to Metrolinx corridors, to assume that the acoustical characteristics of electrified and diesel trains are equivalent. In light of the aforementioned information, acoustical models should employ diesel train parameters as the basis for analyses. We anticipate that additional information regarding specific operational parameters for electrified trains will become available in the future once the proponent team is selected.

Operational information is subject to change and may be influenced by, among other factors, service planning priorities, operational considerations, funding availability and passenger demand.

It should be noted that this information only pertains to Metrolinx rail service. It would be prudent to contact other rail operators in the area directly for rail traffic information pertaining to non-Metrolinx rail service.

I trust this information is useful. Should you have any questions or concerns, please do not hesitate to contact me.

Regards,

Tara Kamal Ahmadi

Junior Analyst
Third Party Projects Review, Capital Projects Group
Metrolinx | 20 Bay Street | Suite 600 | Toronto | Ontario | M5J 2W3

∠ METROLINX

From: Keni Mallinen <kmallinen@slrconsulting.com>

Sent: May 5, 2022 4:43 PM

To: Rail Data Requests < RailDataRequests@metrolinx.com >

Subject: Rail Traffic Data Request for Noise Study - Bloor Street/Dundas Street West, Toronto

EXTERNAL SENDER: Do not click any links or open any attachments unless you trust the sender and know the content is safe.

EXPÉDITEUR EXTERNE: Ne cliquez sur aucun lien et n'ouvrez aucune pièce jointe à moins qu'ils ne proviennent d'un expéditeur fiable, ou que vous ayez l'assurance que le contenu provient d'une source sûre.

Good day,

We are working on an update to a noise study in the vicinity of Bloor Street West and Dundas Street West (2280 Dundas Street West). The site is relatively close to the Bloor GO/UPX Station. I have attached an aerial image of the approximate site location for reference.

Can you please provide forecasted rail traffic data for this section of the track, south of Bloor Street, for GO trains and UPX trains?

Please let me know if you require any further information regarding this request.

Thank you, Keni



Keni Mallinen, P.Eng.

Acoustics Engineer

O +1 226 706 8080

C +1 226 203 7385

ROUTE: 306 CARLTON ROUTING CODE(S): _0,

COUNT: 1130 ON 2002-NOV-04:**M-F** (FROM 01:28 TO 05:20)

STOP CARD: 3 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: MONDAY A.M. TRIPS., RUNS 2,7 AND 11 USED BUSES.



Report: TRIPS DM - 002

Version: 002

EB CONTROL POINT: 28 COLLEGE AT YONGE ST

EASTBOUND PERIOD 1: 00:00 TO 08:59

DOUTE							
ROUTE STOP		START	ONS	OFFS	ACCUM.	<u>VEHICLES</u>	AVG. LOAD
1	DUNDAS WEST STATION	0	0	0	0	12	0.0
2	EDNA AT DUNDAS ST W	0	0	0	0	12	0.0
3	DUNDAS ST W AT BLOOR ST W	0	0	0	0	12	0.0
4	DUNDAS ST W AT RONCESVALLES	0	2	0	2	12	0.2
5	DUNDAS ST W AT HOWARD PK	0	1	0	3	12	0.3
6	DUNDAS ST W AT SORAUREN	0	0	0	3	12	0.3
7	DUNDAS ST W AT STERLING RD	0	1	0	4	12	0.3
8	DUNDAS ST W AT ST HELENS	0	0	0	4	12	0.3
9	COLLEGE AT LANSDOWNE	0	3	0	7	12	0.6
10	COLLEGE AT BROCK	0	0	0	7	12	0.6
11	COLLEGE AT DUFFERIN	0	12	0	19	12	1.6
12	COLLEGE AT RUSHOLME	0	0	0	19	12	1.6
13	COLLEGE AT DOVERCOURT	0	0	1	18	12	1.5
14	COLLEGE AT OSSINGTON AVE	0	8	1	25	12	2.1
15	COLLEGE AT CRAWFORD	0	1	0	26	12	2.2
16	COLLEGE AT GRACE	0	1	1	26	12	2.2
17	COLLEGE AT CLINTON	0	2	2	26	12	2.2
18	COLLEGE AT EUCLID	0	3	0	29	12	2.4
19	COLLEGE AT BATHURST ST	0	5	2	32	12	2.7
20	COLLEGE AT BORDEN	0	1	0	33	12	2.8
21	COLLEGE AT AUGUSTA	0	1	2	32	12	2.7
22	COLLEGE AT SPADINA AVE	0	10	3	39	12	3.3
23	COLLEGE AT BEVERLY	0	3	0	42	12	3.5
24	COLLEGE AT MCCAUL	0	3	0	45	12	3.8
25	COLLEGE AT UNIVERSITY	0	5	4	46	12	3.8
26	COLLEGE AT ELIZABETH	0	0	0	46	12	3.8
27	COLLEGE AT BAY ST	0	0	0	46	12	3.8
28	COLLEGE AT YONGE ST	0	16	17	45	12	3.8
29	CARLTON AT CHURCH	0	16	2	59	12	4.9
30	CARLTON AT JARVIS	0	1	3	57	12	4.8
31	CARLTON AT SHERBOURNE	0	2	5	54	12	4.5
32	CARLTON AT ONTARIO	0	0	0	54	12	4.5
33	CARLTON AT PARLIAMENT	0	1	1	54	12	4.5
34	PARLIAMENT ST AT GERRARD LOWER	0	1	2	53	12	4.4
35	GERRARD AT SACKVILLE	0	0	4	49	12	4.1
36	GERRARD AT SUMACH	0	4	2	51	12	4.3
37	GERRARD AT RIVER	0	3	6	48	12	4.0
38	GERRARD AT BLACKBURN	0	0	0	48	12	4.0
39	GERRARD AT BROADVIEW	0	4	5	47	12	3.9
40	GERRARD AT DEGRASSI	0	0	1	46	12	3.8
41	GERRARD AT LOGAN	0	1	1	46	12	3.8
42	GERRARD AT CARLAW	0	3	0	49	12	4.1
43	GERRARD AT PAPE	0	1	5	45	12	3.8
44	GERRARD AT MARJORY	0	0	1	44	12	3.7
45	GERRARD AT JONES	0	2	3	43	12	3.6

ROUTE: 306 CARLTON ROUTING CODE(S): _0,

COUNT: 1130 ON 2002-NOV-04:**M-F** (FROM 01:28 TO 05:20)

STOP CARD: 3 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: MONDAY A.M. TRIPS., RUNS 2,7 AND 11 USED BUSES.



Report: TRIPS_DM - 002

Version: 002

EB CONTROL POINT: 28 COLLEGE AT YONGE ST

EASTBOUND PERIOD 1: 00:00 TO 08:59

ROUTE							
STOP	LOCATION	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	ACCUM.	VEHICLES	AVG. LOAD
46	GERRARD AT LESLIE	0	1	1	43	12	3.6
47	GERRARD AT ALTON	0	0	0	43	12	3.6
48	GERRARD AT GREENWOOD	0	4	4	43	12	3.6
49	GERRARD AT WOODFIELD	0	3	7	39	12	3.3
50	GERRARD AT ASHDALE	0	1	0	40	12	3.3
51	GERRARD AT COXWELL	0	4	4	40	12	3.3
52	COXWELL AT UPPER GERRARD	0	1	4	37	12	3.1
53	GERRARD UPPER AT BEATON	0	0	0	37	12	3.1
54	GERRARD UPPER AT BOWMORE	0	0	0	37	12	3.1
55	GERRARD UPPER AT KINGSMOUNT	0	0	1	36	12	3.0
56	GERRARD UPPER AT WOODBINE AVE	0	0	2	34	12	2.8
57	GERRARD UPPER AT GOLFVIEW	0	0	3	31	12	2.6
58	GERRARD UPPER AT GLENMOUNT	0	0	1	30	12	2.5
59	GERRARD UPPER AT NORWOOD	0	0	0	30	12	2.5
60	GERRARD UPPER AT MAIN	0	0	3	27	12	2.3
61	MAIN ST AT CNR STN (S DANFORTH)	0	0	0	27	12	2.3
62	MAIN ST AT DANFORTH AVE	0	0	17	10	12	0.8
63	MAIN STATION	0	0	10	0	12	0.0
TOTALS	FOR PERIOD 1: 00:00 TO 08:59	0	131	131	2055	756	2.7

ROUTE: 306 CARLTON ROUTING CODE(S): _0,

COUNT: 1130 ON 2002-NOV-04:**M-F** (FROM 01:28 TO 05:20)

STOP CARD: 3 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: MONDAY A.M. TRIPS., RUNS 2,7 AND 11 USED BUSES.

TORONTO TRANSIT COMMISSION

Report: TRIPS_DM - 002

Version: 002

EB CONTROL POINT: 28 COLLEGE AT YONGE ST

EASTBOUND PERIOD 1: 00:00 TO 08:59

PERIOD RIDING INDEX = 2.7 (AVERAGE OCCUPANCY)

AVERAGE TRIP LENGTH = 15.7 STOPS

AVERAGE ONS/VEHICLE-STOP = 0.2

AVERAGE ONS/TRIP = 10.9

DATE RUN: Tue, 2018-09-04 TIME RUN: 4:34:58 PM PAGE: 3 OF 6

ROUTE: 306 CARLTON ROUTING CODE(S): _0,

COUNT: 1130 ON 2002-NOV-04:**M-F** (FROM 00:42 TO 05:38)

STOP CARD: 3 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: MONDAY A.M. TRIPS., RUNS 2,7 AND 11 USED BUSES.



Report: TRIPS DM - 002

Version: 002

WB CONTROL POINT: 36 CARLTON AT YONGE ST

WESTBOUND PERIOD 1: 00:00 TO 08:59

WESTBO	JUND PERIOD 1: 00:00 TO 08:59						
ROUTE							
STOP	LOCATION	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	ACCUM.	<u>VEHICLES</u>	AVG. LOAD
1	MAIN STATION	0	24	0	24	20	1.2
2	MAIN ST AT DANFORTH AVE	0	14	0	38	20	1.9
3	MAIN ST AT CNR STN (S DANFORTH)	0	0	0	38	20	1.9
4	MAIN ST AT GERRARD	0	5	6	37	20	1.9
5	GERRARD UPPER AT NORWOOD	0	2	1	38	20	1.9
6	GERRARD UPPER AT GLENMOUNT	0	0	1	37	20	1.9
7	GERRARD UPPER AT GOLFVIEW	0	0	0	37	20	1.9
8	GERRARD UPPER AT WOODBINE AVE	0	5	3	39	20	2.0
9	GERRARD UPPER AT KINGSMOUNT	0	0	1	38	20	1.9
10	GERRARD UPPER AT BOWMORE	0	0	3	35	20	1.8
11	GERRARD UPPER AT BEATON	0	1	0	36	20	1.8
12	GERRARD UPPER AT COXWELL	0	3	1	38	20	1.9
13	COXWELL AT LOWER GERRARD	0	10	3	45	20	2.3
14	GERRARD AT ASHDALE	0	3	0	48	17	2.8
15	GERRARD AT HIGHFIELD	0	2	2	48	17	2.8
16	GERRARD AT GREENWOOD	0	6	1	53	17	3.1
17	GERRARD AT PRUST	0	1	0	54	17	3.2
18	GERRARD AT LESLIE	0	4	0	58	17	3.4
19	GERRARD AT JONES	0	1	0	59	17	3.5
20	GERRARD AT MARJORY	0	4	2	61	17	3.6
21	GERRARD AT PAPE	0	0	4	57	17	3.4
22	GERRARD AT CARLAW	0	2	3	56	17	3.3
23	GERRARD AT LOGAN	0	2	2	56	17	3.3
24	GERRARD AT DEGRASSI	0	0	1	55	17	3.2
25	GERRARD AT BROADVIEW	0	9	14	50	17	2.9
26	GERRARD AT ST MATHEWS	0	1	0	51	17	3.0
27	GERRARD AT RIVER	0	7	3	55	17	3.2
28	GERRARD AT SUMACH	0	2	3	54	17	3.2
29	GERRARD AT SACKVILLE	0	1	0	55	17	3.2
30	GERRARD AT PARLIAMENT	0	7	2	60	17	3.5
31	PARLIAMENT ST AT CARLTON	0	1	1	60	17	3.5
32	CARLTON AT ONTARIO	0	1	0	61	17	3.6
33	CARLTON AT SHERBOURNE	0	8	3	66	17	3.9
34	CARLTON AT JARVIS	0	2	5	63	17	3.7
35	CARLTON AT CHURCH	0	8	2	69	17	4.1
36	CARLTON AT YONGE ST	0	42	25	86	17	5.1
37	COLLEGE AT BAY ST	0	1	4	83	17	4.9
38	COLLEGE AT ELIZABETH	0	1	1	83	17	4.9
39	COLLEGE AT QUEENS PARK	0	6	5	84	17	4.9
40	COLLEGE AT MCCAUL	0	3	2	85	17	5.0
41	COLLEGE AT ST. GEORGE	0	7	0	92	17	5.4
42	COLLEGE AT SPADINA AVE	0	10	10	92	17	5.4
43	COLLEGE AT MAJOR	0	2	1	93	17	5.5
44	COLLEGE AT BORDEN	0	0	2	91	17	5.4
45	COLLEGE AT BATHURST ST	0	3	11	83	17	4.9

ROUTE: 306 CARLTON ROUTING CODE(S): _0,

COUNT: 1130 ON 2002-NOV-04:**M-F** (FROM 00:42 TO 05:38)

STOP CARD: 3 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: MONDAY A.M. TRIPS., RUNS 2,7 AND 11 USED BUSES.



Report: TRIPS DM - 002

Version: 002

WB CONTROL POINT: 36 CARLTON AT YONGE ST

WESTBOUND PERIOD 1: 00:00 TO 08:59

ROUTE							
STOP	LOCATION	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	ACCUM.	VEHICLES	AVG. LOAD
46	COLLEGE AT EUCLID	0	1	1	83	17	4.9
47	COLLEGE AT CLINTON	0	2	7	78	17	4.6
48	COLLEGE AT GRACE	0	1	3	76	17	4.5
49	COLLEGE AT CRAWFORD	0	1	3	74	17	4.4
50	COLLEGE AT OSSINGTON AVE	0	3	8	69	17	4.1
51	COLLEGE AT DOVERCOURT	0	0	7	62	17	3.6
52	COLLEGE AT HAVELOCK	0	0	5	57	17	3.4
53	COLLEGE AT DUFFERIN	0	4	22	39	17	2.3
54	COLLEGE AT BROCK	0	0	5	34	17	2.0
55	COLLEGE AT LANSDOWNE	0	0	14	20	17	1.2
56	DUNDAS ST W AT STERLING	0	0	0	20	17	1.2
57	DUNDAS ST W AT SORAUREN	0	0	4	16	17	0.9
58	DUNDAS ST W AT MORROW AVE	0	0	1	15	17	0.9
59	DUNDAS ST W AT RONCESVALLES	0	0	9	6	17	0.4
60	DUNDAS ST W AT BLOOR	0	0	1	5	16	0.3
61	DUNDAS WEST STATION	0	0	5	0	16	0.0
TOTALS	FOR PERIOD 1: 00:00 TO 08:59	0	223	223	3255	1074	3.0

ROUTE: 306 CARLTON ROUTING CODE(S): _0,

COUNT: 1130 ON 2002-NOV-04:M-F (FROM 00:42 TO 05:38)

STOP CARD: 3 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: MONDAY A.M. TRIPS., RUNS 2,7 AND 11 USED BUSES.

Report: TRIPS DM - 002

Version: 002

WB CONTROL POINT: 36 CARLTON AT YONGE ST

TORONTO TRANSIT COMMISSION

WESTBOUND PERIOD 1: 00:00 TO 08:59

PERIOD RIDING INDEX = 3.0 (AVERAGE OCCUPANCY)

AVERAGE TRIP LENGTH = 14.6 STOPS

AVERAGE ONS/VEHICLE-STOP = 0.2

AVERAGE ONS/TRIP = 11.2

DATE RUN: Tue, 2018-09-04 TIME RUN: 4:34:58 PM PAGE: 6 OF 6

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:20)

STOP CARD: 28 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 &

20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514

Cherry into service on June 19, 2016.

EB CONTROL POINT: 31 KING ST W AT YONGE ST



Report: TRIPS DM - 002

Version: 002

TORONTO TRANSIT COMMISSION

EASTBO	OUND PERIOD 1: 07:00						
ROUTE							
	LOCATION	START	<u>ONS</u>	<u>OFFS</u>	ACCUM.	VEHICLES	AVG. LOAD
1	DUNDAS WEST STATION	0	4723	0	4723	208	22.7
3	EDNA AT DUNDAS ST W	0	0	0	526	22	23.9
4	RONCESVALLES AT BOUSTEAD	0	181	97	4807	208	23.1
5	RONCESVALLES AT HOWARD PARK	0	296	231	4872	208	23.4
6	RONCESVALLES AT GRENADIER	0	181	337	4716	208	22.7
7	RONCESVALLES AT HIGH PARK BLVD	0	288	751	4253	208	20.4
8	RONCESVALLES AT GALLEY	0	233	467	4019	207	19.4
9	RONCESVALLES AT MARION	0	185	614	3590	206	17.4
10	RONCESVALLES AT QUEEN ST W	0	910	680	3820	225	17.0
11	KING ST W AT WILSON PARK RD	0	87	94	3813	221	17.3
12	KING ST W AT DOWLING	0	307	303	3817	221	17.3
13	KING ST W AT JAMESON	0	964	626	4155	221	18.8
14	KING ST W AT DUNN	0	433	188	4400	221	19.9
15	KING ST W AT SPENCER	0	432	213	4619	221	20.9
16	KING ST W AT DUFFERIN	0	1075	593	5101	224	22.8
17	KING ST W AT FRASER	0	416	98	5419	224	24.2
18	KING ST W AT ATLANTIC	0	832	286	5965	224	26.6
19	KING ST W AT SUDBURY	0	191	70	6086	224	27.2
20	KING ST W AT SHAW	0	471	135	6422	225	28.5
21	KING ST W AT STRACHAN	0	673	161	6934	225	30.8
22	KING ST W AT NIAGARA	0	232	120	7046	225	31.3
23	KING ST W AT TECUMSETH	0	239	180	7105	225	31.6
24	KING ST W AT BATHURST ST	0	1069	495	7679	226	34.0
25	KING ST W AT PORTLAND	0	704	399	7984	226	35.3
26	KING ST W AT SPADINA AVE	0	1086	1034	8036	226	35.6
27	KING ST W AT BLUE JAYS WAY	0	676	456	8256	224	36.9
28	KING ST W AT JOHN	0	537	713	8080	225	35.9
29	KING ST W AT UNIVERSITY	0	952	3276	5756	225	25.6
30	KING ST W AT BAY ST	0	760	1087	5429	225	24.1
31	KING ST W AT YONGE ST	0	3048	1457	7020	225	31.2
32	KING ST E AT CHURCH	0	359	457	6922	224	30.9
33	KING ST E AT JARVIS	0	354	1459	5817	221	26.3
34	KING ST E AT SHERBOURNE	0	534	1086	5265	221	23.8
35		0	257	808	4714	221	21.3
36	KING ST E AT PARLIAMENT	0	402	790	4326	221	19.6
37	KING ST E AT TRINITY	0	97	213	4210	197	21.4
38	KING ST E AT TKINITT	0	67	171	4106	197	20.8
39	KING ST E AT SACKVILLE KING ST E AT SUMACH	0	162	275	3993	197	20.3
40	KING ST E AT SUMACH	0	327	382	3938	197	20.3
41	QUEEN ST E AT CARROLL	0	32 <i>1</i> 75	362 288	3725	197	20.0 19.1
42	QUEEN STEAT CARROLL QUEEN STEAT BROADVIEW		677	855	3547	195	18.2
42 43	BROADVIEW AT DUNDAS ST E	0	386	655 191		188	19.9
43 44	BROADVIEW AT MT STEPHEN	0	109	123	3742	183	20.4
44 45	BROADVIEW AT MI STEPHEN BROADVIEW AT GERRARD	0	587	601	3728 371 <i>4</i>	183	20.4
45 46	BROADVIEW AT GERRARD BROADVIEW AT LANGLEY	0 0	195	168	3714 3741	182	20.3 20.6
40	DIVOUD NIEW AT LANGLET	U	190	100	3741	102	20.0

DATE RUN: Tue, 2018-09-04 TIME RUN: 4:28:42 PM PAGE: 1 OF 12

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:20)

STOP CARD: 28 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 &

20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514

Cherry into service on June 19, 2016.

EB CONTROL POINT: 31 KING ST W AT YONGE ST



Version: 002

Report: TRIPS_DM - 002

EASTBO	OUND PERIOD 1: 07:00						
ROUTE							
<u>STOP</u>	LOCATION	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	ACCUM.	VEHICLES	AVG. LOAD
47	BROADVIEW AT WITHROW	0	111	153	3699	181	20.4
48	BROADVIEW AT MILLBROOK	0	51	98	3652	179	20.4
49	BROADVIEW AT WOLFREY	0	25	160	3517	178	19.8
51	BROADVIEW STATION	0	0	3517	0	178	0.0
TOTALS	FOR PERIOD 1: 07:00	$\frac{\overline{0}}{0}$	26956	26956	240804	10141	23.7

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:20)

STOP CARD: 28 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 &

20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514

Cherry into service on June 19, 2016.

EB CONTROL POINT: 31 KING ST W AT YONGE ST

Report: TRIPS_DM - 002

Version: 002

TORONTO TRANSIT COMMISSION

EASTBOUND PERIOD 1: 07:00

PERIOD RIDING INDEX = 23.7 (AVERAGE OCCUPANCY)

AVERAGE TRIP LENGTH = 8.9 STOPS

AVERAGE ONS/VEHICLE-STOP = 2.7 AVERAGE ONS/TRIP = 119.3

DATE RUN: Tue, 2018-09-04 TIME RUN: 4:28:42 PM PAGE: 3 OF 12

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:20)

STOP CARD: 28 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 &

20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514

Cherry into service on June 19, 2016.

EB CONTROL POINT: 31 KING ST W AT YONGE ST



Report: TRIPS DM - 002

Version: 002

EASTB	OUND PERIOD 2: 23:01						
ROUTE							
	LOCATION	<u>START</u>	<u>ONS</u>	<u>OFFS</u>			AVG. LOAD
1	DUNDAS WEST STATION	0	262	0	262	18	14.6
3	EDNA AT DUNDAS ST W	0	0	0	4	1	4.0
4	RONCESVALLES AT BOUSTEAD	0	6	1	267	18	14.8
5	RONCESVALLES AT HOWARD PARK	0	0	3	264	18	14.7
6	RONCESVALLES AT GRENADIER	0	4	17	251	18	13.9
7	RONCESVALLES AT HIGH PARK BLVD	0	6	22	235	18	13.1
8	RONCESVALLES AT GALLEY	0	0	17	218	18	12.1
9	RONCESVALLES AT MARION	0	0	15	203	18	11.3
10	RONCESVALLES AT QUEEN ST W	0	19	45	177	21	8.4
11	KING ST W AT WILSON PARK RD	0	0	4	173	16	10.8
12	KING ST W AT DOWLING	0	5	19	159	16	9.9
13	KING ST W AT JAMESON	0	14	64	109	16	6.8
14	KING ST W AT DUNN	0	4	15	98	16	6.1
15	KING ST W AT SPENCER	0	1	19	80	16	5.0
16	KING ST W AT DUFFERIN	0	36	18	98	16	6.1
17	KING ST W AT FRASER	0	3	4	97	16	6.1
18	KING ST W AT ATLANTIC	0	25	11	111	16	6.9
19	KING ST W AT SUDBURY	0	4	1	114	15	7.6
20	KING ST W AT SHAW	0	17	7	124	17	7.3
21	KING ST W AT STRACHAN	0	8	3	129	18	7.2
22	KING ST W AT NIAGARA	0	4	2	131	18	7.3
23	KING ST W AT TECUMSETH	0	5	2	134	18	7.4
24	KING ST W AT BATHURST ST	0	52	26	160	19	8.4
25	KING ST W AT PORTLAND	0	15	19	156	19	8.2
26	KING ST W AT SPADINA AVE	0	100	13	243	18	13.5
27	KING ST W AT BLUE JAYS WAY	0	28	18	253	19	13.3
28	KING ST W AT JOHN	0	59	9	303	18	16.8
29	KING ST W AT UNIVERSITY	0	39	85	257	18	14.3
30	KING ST W AT BAY ST	0	12	13	256	18	14.2
31	KING ST W AT YONGE ST	0	80	39	297	19	15.6
32	KING ST E AT CHURCH	0	16	27	286	19	15.1
33	KING ST E AT JARVIS	0	0	13	273	17	16.1
34	KING ST E AT SHERBOURNE	0	10	19	264	17	15.5
35	KING ST E AT ONTARIO ST	0	1	14	251	17	14.8
36	KING ST E AT PARLIAMENT	0	34	41	244	18	13.6
37	KING ST E AT TRINITY	0	2	7	239	16	14.9
38	KING ST E AT SACKVILLE	0	1	4	236	16	14.8
39	KING ST E AT SUMACH	0	7	26	217	16	13.6
40	KING ST E AT RIVER ST	0	10	22	205	16	12.8
41	QUEEN ST E AT CARROLL	0	0	3	202	16	12.6
42	QUEEN ST E AT BROADVIEW	0	16	40	178	16	11.1
43	BROADVIEW AT DUNDAS ST E	0	17	13	182	15	12.1
44	BROADVIEW AT MT STEPHEN	0	0	10	172	14	12.3
45	BROADVIEW AT GERRARD	0	19	23	168	14	12.0
46	BROADVIEW AT LANGLEY	0	1	3	166	14	11.9

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:20)

STOP CARD: 28 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 &

20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514

Cherry into service on June 19, 2016.

EB CONTROL POINT: 31 KING ST W AT YONGE ST



Version: 002

Report: TRIPS_DM - 002

EASTBO	OUND PERIOD 2: 23:01						
ROUTE							
<u>STOP</u>	<u>LOCATION</u>	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	ACCUM.	VEHICLES	AVG. LOAD
47	BROADVIEW AT WITHROW	0	2	8	160	14	11.4
48	BROADVIEW AT MILLBROOK	0	4	5	159	14	11.4
49	BROADVIEW AT WOLFREY	0	1	6	154	14	11.0
51	BROADVIEW STATION	0	0	154	0	14	0.0
TOTALS	FOR PERIOD 2: 23:01	0	949	949	9119	807	11.3

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:20)

STOP CARD: 28 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 &

20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514

Cherry into service on June 19, 2016.

EB CONTROL POINT: 31 KING ST W AT YONGE ST

Report: TRIPS_DM - 002

Version: 002

TORONTO TRANSIT COMMISSION

EASTBOUND PERIOD 2: 23:01

PERIOD RIDING INDEX = 11.3 (AVERAGE OCCUPANCY)

AVERAGE TRIP LENGTH = 9.6 STOPS

AVERAGE ONS/VEHICLE-STOP = 1.2 AVERAGE ONS/TRIP = 45.2

DATE RUN: Tue, 2018-09-04 TIME RUN: 4:28:42 PM PAGE: 6 OF 12

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:15)

STOP CARD: 28 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 &

20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514

Cherry into service on June 19, 2016.

WB CONTROL POINT: 24 KING ST E AT YONGE ST



Report: TRIPS DM - 002

Version: 002

TORONTO TRANSIT COMMISSION

WESTB	OUND PERIOD 1: 07:00						
ROUTE							
<u>STOP</u>	LOCATION	<u>START</u>	<u>ONS</u>	<u>OFFS</u>			AVG. LOAD
1	BROADVIEW STATION	0	3541	0	3541	171	20.7
3	ERINDALE AT BROADVIEW	0	70	0	3611	171	21.1
4	BROADVIEW AT DANFORTH AVE	0	103	1	3209	146	22.0
5	BROADVIEW AT WOLFREY	0	201	34	3880	171	22.7
6	BROADVIEW AT MILLBROOK	0	106	39	3947	172	22.9
7	BROADVIEW AT WITHROW	0	193	130	4010	173	23.2
8	BROADVIEW AT LANGLEY	0	159	83	4086	174	23.5
9	BROADVIEW AT JACK LAYTON WAY	0	87	215	3958	174	22.7
10	BROADVIEW AT GERRARD	0	657	497	4118	175	23.5
11	BROADVIEW AT MT STEPHEN	0	107	91	4134	175	23.6
12	BROADVIEW AT DUNDAS ST E	0	250	247	4137	188	22.0
13	BROADVIEW AT QUEEN ST E	0	722	742	4117	202	20.4
14	QUEEN ST E AT CARROLL	0	378	111	4384	198	22.1
15	KING ST E AT RIVER	0	510	347	4547	198	23.0
16	KING ST E AT SUMACH	0	360	170	4737	198	23.9
17	KING ST E AT SACKVILLE	0	140	70	4807	198	24.3
18	KING ST E AT TRINITY	0	116	97	4826	197	24.5
19	KING ST E AT PARLIAMENT	0	539	205	5160	201	25.7
20	KING ST E AT ONTARIO	0	789	339	5610	204	27.5
21	KING ST E AT SHERBOURNE	0	1033	582	6061	204	29.7
22	KING ST E AT JARVIS	0	1133	299	6895	204	33.8
23	KING ST E AT CHURCH	0	468	305	7058	207	34.1
24	KING ST E AT YONGE ST	0	1717	2947	5828	208	28.0
25	KING ST W AT BAY ST	0	806	735	5899	208	28.4
26	KING ST W AT UNIVERSITY	0	2752	819	7832	208	37.7
27	KING ST W AT JOHN	0	469	716	7585	208	36.5
28	KING ST W AT PETER	0	319	713	7191	208	34.6
29	KING ST W AT SPADINA AVE	0	917	1250	6858	209	32.8
30	KING ST W AT PORTLAND	0	348	870	6336	209	30.3
31	KING ST W AT BATHURST ST	0	524	897	5963	210	28.4
32	KING ST W AT TECUMSETH	0	158	251	5870	209	28.1
33	KING ST W AT NIAGARA	0	113	219	5764	209	27.6
34	KING ST W AT STRACHAN	0	166	619	5311	209	25.4
35	KING ST W AT SHAW	0	162	579	4894	209	23.4
36	KING ST W AT SUDBURY	0	60	189	4765	208	22.9
37	KING ST W AT JEFFERSON	0	211	544	4432	209	21.2
38	KING ST W AT JOE SHUSTER WAY	0	53	316	4169	209	19.9
39	KING ST W AT DUFFERIN	0	725	1108	3786	209	18.1
	KING ST W AT DOFFERIN						
40		0	159 160	265	3680	203	18.1
41	KING ST W AT JAMESON	0	169	294 956	3555	203	17.5
42	KING ST WAT DOWN INC	0	437	856	3136	203	15.4
43	KING ST W AT MU SON BARK BR	0	263	262	3137	202	15.5
44	KING ST WAT OUT FALST W	0	61	122	3076	202	15.2
45 46	KING ST W AT QUEEN ST W	0	166	657	2585	202	12.8
46	RONCESVALLES AT QUEEN ST W (1)	0	895	189	3291	180	18.3

DATE RUN: Tue, 2018-09-04 TIME RUN: 4:28:42 PM PAGE: 7 OF 12

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:15)

STOP CARD: 28 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 &

20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514

Cherry into service on June 19, 2016.

WB CONTROL POINT: 24 KING ST E AT YONGE ST



Report: TRIPS DM - 002

Version: 002

WESTB	OUND PERIOD 1: 07:00							
ROUTE								
STOP	LOCATION	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	ACCUM.	VEHICLES	AVG. LOAD	
47	RONCESVALLES AT MARION	0	579	138	3732	179	20.8	
48	RONCESVALLES AT GARDEN	0	464	188	4008	182	22.0	
49	RONCESVALLES AT FERMANAGH	0	636	271	4373	182	24.0	
50	RONCESVALLES AT GRENADIER	0	307	138	4542	182	25.0	
51	RONCESVALLES AT HOWARD PARK	0	350	309	4583	183	25.0	
52	RONCESVALLES AT BOUSTEAD	0	53	202	4434	181	24.5	
53	DUNDAS ST W AT BLOOR	0	14	279	4169	181	23.0	
55	DUNDAS WEST STATION	0	0	4169	0	181	0.0	
TOTALS	FOR PERIOD 1: 07:00	0	25715	25715	245617	10286	23.9	

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:15)

STOP CARD: 28 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 &

20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514

Cherry into service on June 19, 2016.

WB CONTROL POINT: 24 KING ST E AT YONGE ST

T.

Report: TRIPS DM - 002

Version: 002

TORONTO TRANSIT COMMISSION

WESTBOUND PERIOD 1: 07:00

PERIOD RIDING INDEX = 23.9 (AVERAGE OCCUPANCY)

AVERAGE TRIP LENGTH = 9.6 STOPS

AVERAGE ONS/VEHICLE-STOP = 2.5

AVERAGE ONS/TRIP = 122.5

DATE RUN: Tue, 2018-09-04 TIME RUN: 4:28:42 PM PAGE: 9 OF 12

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:15)

STOP CARD: 28 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 &

20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514

Cherry into service on June 19, 2016.

WB CONTROL POINT: 24 KING ST E AT YONGE ST



Report: TRIPS DM - 002

Version: 002

WESTB	OUND PERIOD 2: 23:01						
ROUTE							
	LOCATION	START	<u>ONS</u>	<u>OFFS</u>			AVG. LOAD
1	BROADVIEW STATION	0	138	0	138	18	7.7
3	ERINDALE AT BROADVIEW	0	2	0	140	18	7.8
4	BROADVIEW AT DANFORTH AVE	0	1	1	134	17	7.9
5	BROADVIEW AT WOLFREY	0	3	4	139	18	7.7
6	BROADVIEW AT MILLBROOK	0	0	3	136	18	7.6
7	BROADVIEW AT WITHROW	0	11	2	145	18	8.1
8	BROADVIEW AT LANGLEY	0	0	2	143	18	7.9
9	BROADVIEW AT JACK LAYTON WAY	0	0	2	141	18	7.8
10	BROADVIEW AT GERRARD	0	16	18	139	18	7.7
11	BROADVIEW AT MT STEPHEN	0	1	12	128	17	7.5
12	BROADVIEW AT DUNDAS ST E	0	14	17	125	18	6.9
13	BROADVIEW AT QUEEN ST E	0	33	34	124	19	6.5
14	QUEEN ST E AT CARROLL	0	15	1	138	19	7.3
15	KING ST E AT RIVER	0	17	12	143	19	7.5
16	KING ST E AT SUMACH	0	17	9	151	19	7.9
17	KING ST E AT SACKVILLE	0	4	0	155	19	8.2
18	KING ST E AT TRINITY	0	3	0	158	19	8.3
19	KING ST E AT PARLIAMENT	0	33	5	186	20	9.3
20	KING ST E AT ONTARIO	0	7	13	180	20	9.0
21	KING ST E AT SHERBOURNE	0	51	8	223	19	11.7
22	KING ST E AT JARVIS	0	23	6	240	19	12.6
23	KING ST E AT CHURCH	0	43	5	278	22	12.6
24	KING ST E AT YONGE ST	0	99	107	270	22	12.3
25	KING ST W AT BAY ST	0	45	6	309	21	14.7
26	KING ST W AT UNIVERSITY	0	131	24	416	21	19.8
27	KING ST W AT JOHN	0	35	25	426	22	19.4
28	KING ST W AT PETER	0	58	27	457	23	19.9
29	KING ST W AT SPADINA AVE	0	65	78	444	23	19.3
30	KING ST W AT PORTLAND	0	37	42	439	22	20.0
31	KING ST W AT BATHURST ST	0	47	36	450	22	20.5
32	KING ST W AT TECUMSETH	0	19	2	467	22	21.2
33	KING ST W AT NIAGARA	0	7	14	460	22	20.9
34	KING ST W AT STRACHAN	0	5	32	433	22	19.7
35	KING ST W AT SHAW	0	17	47	403	22	18.3
36	KING ST W AT SUDBURY	0	44	10	437	23	19.0
37	KING ST W AT JEFFERSON	0	11	12	436	23	19.0
38	KING ST W AT JOE SHUSTER WAY	0	19	18	437	23	19.0
39	KING ST W AT DUFFERIN	0	34	117	354	23	15.4
40	KING ST W AT SPENCER	0	11	31	334	20	16.7
41	KING ST W AT DUNN	0	3	32	305	20	15.3
42	KING ST W AT JAMESON	0	10	74	241	20	12.1
43	KING ST W AT DOWLING	0	7	30	218	20	10.9
44	KING ST W AT WILSON PARK RD	0	5	11	212	19	11.2
45	KING ST W AT QUEEN ST W	0	0	39	173	19	9.1
46	RONCESVALLES AT QUEEN ST W (1)	0	25	30	168	16	10.5

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:15)

STOP CARD: 28 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 &

20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514

Cherry into service on June 19, 2016.

WB CONTROL POINT: 24 KING ST E AT YONGE ST



Report: TRIPS DM - 002

Version: 002

WESTB	OUND PERIOD 2: 23:01						
ROUTE							
STOP	LOCATION	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	ACCUM.	VEHICLES	AVG. LOAD
47	RONCESVALLES AT MARION	0	4	13	159	15	10.6
48	RONCESVALLES AT GARDEN	0	11	9	161	15	10.7
49	RONCESVALLES AT FERMANAGH	0	2	19	144	15	9.6
50	RONCESVALLES AT GRENADIER	0	6	4	146	15	9.7
51	RONCESVALLES AT HOWARD PARK	0	11	10	147	15	9.8
52	RONCESVALLES AT BOUSTEAD	0	0	13	134	15	8.9
53	DUNDAS ST W AT BLOOR	0	0	5	129	15	8.6
55	DUNDAS WEST STATION	0	0	129	0	15	0.0
TOTALS	FOR PERIOD 2: 23:01	<u></u>	1200	1200	12793	1020	12.5

ROUTE: 504 KING

ROUTING CODE(S): _0, _1,

COUNT: 1005 ON 2017-SEP-06:M-F (FROM 07:03 TO 26:15)

STOP CARD: 28 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: Detour between University & Spadina; delays between 19:30 &

20:45. Runs 50, 51, 53, 54, 55, 56, and 58 utilized buses. 514

Cherry into service on June 19, 2016.

WB CONTROL POINT: 24 KING ST E AT YONGE ST

T.

Report: TRIPS DM - 002

Version: 002

TORONTO TRANSIT COMMISSION

WESTBOUND PERIOD 2: 23:01

PERIOD RIDING INDEX = 12.5 (AVERAGE OCCUPANCY)

AVERAGE TRIP LENGTH = 10.7 STOPS

AVERAGE ONS/VEHICLE-STOP = 1.2 AVERAGE ONS/TRIP = 52.2

DATE RUN: Tue, 2018-09-04 TIME RUN: 4:28:42 PM PAGE: 12 OF 12

ROUTE: 505 DUNDAS ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15:**M-F** (FROM 07:07 TO 25:21)

STOP CARD: 16 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather

during survey.



Report: TRIPS_DM - 002

Version: 002

EB CONTROL POINT: 23 DUNDAS ST W AT SPADINA AVE

EASTBO	DUND PERIOD 1: 07:00						
ROUTE							
	LOCATION	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	ACCUM.	VEHICLES	AVG. LOAD
1	DUNDAS WEST AT OUTER PLATFORM	0	1401	0	1401	107	13.1
3	DUNDAS ST W AT RONCESVALLES	0	169	59	1511	107	14.1
4	DUNDAS ST W AT HOWARD PK	0	99	75	1535	107	14.3
5	DUNDAS ST W AT SORAUREN	0	158	99	1594	108	14.8
6	DUNDAS ST W AT STERLING RD	0	28	63	1559	108	14.4
7	DUNDAS ST W AT ST HELENS	0	3	7	1555	108	14.4
8	DUNDAS ST W AT LANSDOWNE	0	389	178	1766	132	13.4
10	DUNDAS ST W AT BROCK	0	328	126	1968	132	14.9
11	DUNDAS ST W AT SHERIDAN	0	201	60	2109	133	15.9
12	DUNDAS ST W AT DUFFERIN	0	573	130	2552	133	19.2
13	DUNDAS ST W AT GLADSTONE	0	219	66	2705	133	20.3
14	DUNDAS ST W AT LISGAR	0	237	92	2850	133	21.4
15	DUNDAS ST W AT DOVERCOURT	0	268	134	2984	133	22.4
16	DUNDAS ST W AT OSSINGTON	0	636	306	3314	134	24.7
17	DUNDAS ST W AT SHAW	0	178	59	3433	133	25.8
18	DUNDAS ST W AT GRACE	0	168	70	3531	133	26.5
19	DUNDAS ST W AT BELLWOODS	0	190	85	3636	133	27.3
20	DUNDAS ST W AT EUCLID	0	272	167	3741	133	28.1
21	DUNDAS ST W AT BATHURST ST	0	1121	496	4366	139	31.4
22	DUNDAS ST W AT DENISON	0	239	115	4490	138	32.5
23	DUNDAS ST W AT SPADINA AVE	0	1396	722	5164	147	35.1
24	DUNDAS ST W AT HURON	0	464	102	5526	146	37.8
25	DUNDAS ST W AT BEVERLEY	0	370	177	5719	145	39.4
26	DUNDAS ST W AT MCCAUL	0	283	265	5737	144	39.8
27	DUNDAS ST W AT UNIVERSITY	0	750	1370	5117	143	35.8
28	DUNDAS ST W AT CHESTNUT ST	0	128	286	4959	143	34.7
29	DUNDAS ST W AT BAY ST	0	309	948	4320	144	30.0
30	DUNDAS ST W AT YONGE ST	0	1932	2152	4100	140	29.3
31	DUNDAS ST E AT VICTORIA	0	242	201	4141	140	29.6
33	DUNDAS ST E AT CHURCH	0	164	268	4037	138	29.3
34	DUNDAS ST E AT JARVIS	0	200	469	3768	137	27.5
35	DUNDAS ST E AT SHERBOURNE	0	156	532	3392	136	24.9
36	DUNDAS ST E AT ONTARIO	0	37	202	3227	136	23.7
37		0	305	1001	2531	136	18.6
39	DUNDAS ST E AT SACKVILLE	0	116	305	2342	113	20.7
40	DUNDAS ST E AT SACKVILLE DUNDAS ST E AT SUMACH	0	83	159	2266	113	20.7
41	DUNDAS ST E AT SUMACIT		215	242	2239	113	19.8
42	DUNDAS ST E AT RIVER DUNDAS ST E AT MUNRO	0	34	112	2161	113	19.6
	DUNDAS ST E AT MONRO DUNDAS ST E AT BROADVIEW	0					
43		0	189	316	2034	114	17.8
44 45	BROADVIEW AT CERRARD	0	67 479	105	1996	110	18.1
45 47	BROADVIEW AT LANCLEY	0	478 86	398	2076	109	19.0
47	BROADVIEW AT WITH DOW	0	86	31 55	2131	108	19.7
48	BROADVIEW AT MILL BROOK	0	74	55	2150	108	19.9
50	BROADVIEW AT MOLEREY	0	50	43	2157	108	20.0
51	BROADVIEW AT WOLFREY	0	27	48	2136	108	19.8

ROUTE: 505 DUNDAS ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15:**M-F** (FROM 07:07 TO 25:21)

STOP CARD: 16 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather

during survey.



Report: TRIPS_DM - 002

Version: 002

EB CONTROL POINT: 23 DUNDAS ST W AT SPADINA AVE

TORONTO TRANSIT COMMISSION

EASTBO	OUND PERIOD 1: 07:00						
ROUTE							
STOP	<u>LOCATION</u>	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	ACCUM.	VEHICLES	AVG. LOAD
52	BROADVIEW AT DANFORTH AVE	0	7	252	1891	108	17.5
53	BROADVIEW STATION	0	0	1891	0	108	0.0
TOTALS	FOR PERIOD 1: 07:00	<u></u>	15039	15039	139917	5925	23.6

DATE RUN: Tue, 2018-09-04 TIME RUN: 4:32:07 PM PAGE: 2 OF 12

ROUTE: 505 DUNDAS ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15:**M-F** (FROM 07:07 TO 25:21)

STOP CARD: 16 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather

during survey.

EB CONTROL POINT: 23 DUNDAS ST W AT SPADINA AVE

Report: TRIPS_DM - 002

Version: 002

TORONTO TRANSIT COMMISSION

EASTBOUND PERIOD 1: 07:00

PERIOD RIDING INDEX = 23.6 (AVERAGE OCCUPANCY)

AVERAGE TRIP LENGTH = 9.3 STOPS

AVERAGE ONS/VEHICLE-STOP = 2.5 AVERAGE ONS/TRIP = 102.3

DATE RUN: Tue, 2018-09-04 TIME RUN: 4:32:07 PM PAGE: 3 OF 12

ROUTE: 505 DUNDAS ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15:**M-F** (FROM 07:07 TO 25:21)

STOP CARD: 16 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather

during survey.



EB CONTROL POINT: 23 DUNDAS ST W AT SPADINA AVE

TORONTO TRANSIT COMMISSION

Report: TRIPS_DM - 002

Version: 002

EASTBO	DUND PERIOD 2: 23:01						
ROUTE							
	LOCATION	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	ACCUM.	VEHICLES	AVG. LOAD
1	DUNDAS WEST AT OUTER PLATFORM	0	31	0	31	8	3.9
3	DUNDAS ST W AT RONCESVALLES	0	3	4	30	8	3.8
4	DUNDAS ST W AT HOWARD PK	0	1	1	30	7	4.3
5	DUNDAS ST W AT SORAUREN	0	0	6	24	7	3.4
6	DUNDAS ST W AT STERLING RD	0	0	2	22	7	3.1
7	DUNDAS ST W AT ST HELENS	0	1	0	23	7	3.3
8	DUNDAS ST W AT LANSDOWNE	0	4	6	21	9	2.3
10	DUNDAS ST W AT BROCK	0	3	0	24	9	2.7
11	DUNDAS ST W AT SHERIDAN	0	3	1	26	9	2.9
12	DUNDAS ST W AT DUFFERIN	0	10	1	35	9	3.9
13	DUNDAS ST W AT GLADSTONE	0	2	0	37	9	4.1
14	DUNDAS ST W AT LISGAR	0	10	1	46	9	5.1
15	DUNDAS ST W AT DOVERCOURT	0	6	1	51	9	5.7
16	DUNDAS ST W AT OSSINGTON	0	15	4	62	9	6.9
17	DUNDAS ST W AT SHAW	0	3	0	65	9	7.2
18	DUNDAS ST W AT GRACE	0	2	2	65	9	7.2
19	DUNDAS ST W AT BELLWOODS	0	1	1	65	9	7.2
20	DUNDAS ST W AT EUCLID	0	1	5	61	9	6.8
21	DUNDAS ST W AT BATHURST ST	0	14	10	65	10	6.5
22	DUNDAS ST W AT DENISON	0	5	2	68	10	6.8
23	DUNDAS ST W AT SPADINA AVE	0	17	6	79	10	7.9
24	DUNDAS ST W AT HURON	0	8	0	87	10	8.7
25	DUNDAS ST W AT BEVERLEY	0	18	2	103	10	10.3
26	DUNDAS ST W AT MCCAUL	0	5	2	106	10	10.6
27	DUNDAS ST W AT UNIVERSITY	0	19	17	108	10	10.8
28	DUNDAS ST W AT CHESTNUT ST	0	5	6	107	10	10.7
29	DUNDAS ST W AT BAY ST	0	11	0	118	10	11.8
30	DUNDAS ST W AT YONGE ST	0	61	22	157	10	15.7
31	DUNDAS ST E AT VICTORIA	0	19	1	175	10	17.5
33	DUNDAS ST E AT CHURCH	0	6	27	154	10	15.4
34	DUNDAS ST E AT JARVIS	0	6	7	153	10	15.3
35	DUNDAS ST E AT SHERBOURNE	0	4	33	124	10	12.4
36	DUNDAS ST E AT ONTARIO	0	1	10	115	10	11.5
37	DUNDAS ST E AT PARLIAMENT	0	4	31	88	10	8.8
39	DUNDAS ST E AT FARCIAMENT DUNDAS ST E AT SACKVILLE	0	1	11	78	9	8.7
40	DUNDAS ST E AT SUMACH	0	1	5	76 74	9	8.2
41	DUNDAS ST E AT SUMACIT	0	1	12	63	9	7.0
41	DUNDAS ST E AT MUNRO	0	0	6	57	9	6.3
43	DUNDAS ST E AT BROADVIEW BROADVIEW AT MT STEPHEN	0	4 0	14	47 46	9 7	5.2
44 45		0		1	46 27		6.6 5.3
45 47	BROADVIEW AT LANCIEY	0	1	10	37	7	5.3 5.1
47	BROADVIEW AT WITHDOW	0	1	2	36	7	5.1
48	BROADVIEW AT MILL BROOK	0	0	0	36	7	5.1
50	BROADVIEW AT MOLEREY	0	0	1	35	7	5.0
51	BROADVIEW AT WOLFREY	0	0	0	35	7	5.0

ROUTE: 505 DUNDAS ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15:**M-F** (FROM 07:07 TO 25:21)

STOP CARD: 16 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather

during survey.



Report: TRIPS_DM - 002

Version: 002

EB CONTROL POINT: 23 DUNDAS ST W AT SPADINA AVE

EASTB	OUND PERIOD 2: 23:01						
ROUTE	<u> </u>						
STOP	LOCATION	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	ACCUM.	VEHICLES	AVG. LOAD
52	BROADVIEW AT DANFORTH AVE	0	0	1	34	7	4.9
53	BROADVIEW STATION	0	0	34	0	7	0.0
TOTALS	FOR PERIOD 2: 23:01	0	308	308	3103	413	7.5

ROUTE: 505 DUNDAS ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15:**M-F** (FROM 07:07 TO 25:21)

STOP CARD: 16 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather

during survey.

EB CONTROL POINT: 23 DUNDAS ST W AT SPADINA AVE

Report: TRIPS_DM - 002

Version: 002

TORONTO TRANSIT COMMISSION

EASTBOUND PERIOD 2: 23:01

PERIOD RIDING INDEX = 7.5 (AVERAGE OCCUPANCY)

AVERAGE TRIP LENGTH = 10.1 STOPS

AVERAGE ONS/VEHICLE-STOP = 0.7 AVERAGE ONS/TRIP = 30.8

DATE RUN: Tue, 2018-09-04 TIME RUN: 4:32:07 PM PAGE: 6 OF 12

ROUTE: 505 DUNDAS ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15:**M-F** (FROM 07:02 TO 25:13)

STOP CARD: 16 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather

during survey.



Report: TRIPS DM - 002

Version: 002

WB CONTROL POINT: 32 DUNDAS ST W AT SPADINA AVE

WESTBOUND PERIOD 1: 07:00							
ROUTE							
<u>STOP</u>	LOCATION	<u>START</u>	<u>ONS</u>	<u>OFFS</u>			AVG. LOAD
1	BROADVIEW STATION	0	1791	0	1791	113	15.8
2	ERINDALE AT BROADVIEW	0	61	1	1851	113	16.4
3	BROADVIEW AT DANFORTH AVE	0	76	4	1923	113	17.0
4	BROADVIEW AT WOLFREY	0	78	14	1987	113	17.6
5	BROADVIEW AT MILLBROOK	0	47	26	2008	113	17.8
7	BROADVIEW AT WITHROW	0	54	45	2017	113	17.8
8	BROADVIEW AT LANGLEY	0	49	35	2031	113	18.0
9	BROADVIEW AT SIMPSON	0	27	86	1972	113	17.5
10	BROADVIEW AT GERRARD	0	402	276	2098	119	17.6
11	BROADVIEW AT MT STEPHEN	0	81	37	2142	120	17.9
12	BROADVIEW AT DUNDAS ST E	0	343	158	2327	132	17.6
13	DUNDAS ST E AT MUNRO	0	142	70	2399	128	18.7
14	DUNDAS ST E AT RIVER	0	384	211	2572	128	20.1
15	DUNDAS ST E AT SUMACH	0	209	141	2640	128	20.6
16	DUNDAS ST E AT SACKVILLE	0	393	168	2865	128	22.4
18	DUNDAS ST E AT PARLIAMENT	0	1017	205	3677	134	27.4
19	DUNDAS ST E AT ONTARIO	0	235	45	3867	134	28.9
20	DUNDAS ST E AT SHERBOURNE	0	523	169	4221	134	31.5
21	DUNDAS ST E AT JARVIS	0	303	140	4384	134	32.7
22	DUNDAS ST E AT CHURCH	0	312	260	4436	136	32.6
24	DUNDAS ST E AT VICTORIA	0	326	382	4380	138	31.7
25	DUNDAS ST E AT YONGE ST	0	2727	1768	5339	140	38.1
26	DUNDAS ST W AT BAY ST	0	890	271	5958	146	40.8
27	DUNDAS ST W AT CHESTNUT ST	0	258	149	6067	147	41.3
28	DUNDAS ST W AT UNIVERSITY	0	1091	736	6422	148	43.4
29	DUNDAS ST W AT MCCAUL	0	385	453	6354	149	42.6
30	DUNDAS ST W AT BEVERLEY	0	203	278	6279	149	42.1
31	DUNDAS ST W AT HURON	0	128	343	6064	149	40.7
32	DUNDAS ST W AT SPADINA AVE	0	927	1698	5293	153	34.6
33	DUNDAS ST W AT DENISON	0	188	351	5130	150	34.2
34	DUNDAS ST W AT BATHURST ST	0	553	1457	4226	150	28.2
35	DUNDAS ST W AT EUCLID	0	148	356	4018	134	30.0
36	DUNDAS ST W AT GRACE	0	150	269	3899	134	29.1
37	DUNDAS ST W AT CRAWFORD	0	52	188	3763	134	28.1
38	DUNDAS ST W AT OSSINGTON	0	297	769	3291	135	24.4
39	DUNDAS ST W AT DOVERCOURT	0	141	297	3135	133	23.6
40	DUNDAS ST W AT RUSHOLME RD	0	96	229	3002	133	22.6
41	DUNDAS ST W AT GLADSTONE	0	49	212	2839	133	21.3
42	DUNDAS ST W AT DUFFERIN	0	143	686	2296	133	17.3
43	DUNDAS ST W AT SHERIDAN	0	59	167	2188	132	16.6
44	DUNDAS ST W AT BROCK	0	88	260	2016	132	15.3
46	DUNDAS ST W AT LANSDOWNE	0	178	638	1556	132	11.8
47	DUNDAS ST W AT STERLING RD	0	44	41	1559	109	14.3
48	DUNDAS ST W AT SORAUREN	0	66	133	1492	110	13.6
49	DUNDAS ST W AT MORROW AVE	0	59	155	1396	110	12.7

ROUTE: 505 DUNDAS ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15:**M-F** (FROM 07:02 TO 25:13)

STOP CARD: 16 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather

during survey.



Report: TRIPS_DM - 002

Version: 002

WB CONTROL POINT: 32 DUNDAS ST W AT SPADINA AVE

TORONTO TRANSIT COMMISSION

WESTE	OUND PERIOD 1: 07:00						
ROUTE	<u> </u>						
STOP	<u>LOCATION</u>	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	ACCUM.	<u>VEHICLES</u>	AVG. LOAD
50	DUNDAS ST W AT RONCESVALLES	0	39	137	1298	109	11.9
51	DUNDAS ST W AT BLOOR	0	4	107	1195	109	11.0
52	DUNDAS WEST STATION	0	0	1195	0	109	0.0
TOTALS	FOR PERIOD 1: 07:00	0	15816	15816	153663	6199	24.8

ROUTE: 505 DUNDAS ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15:**M-F** (FROM 07:02 TO 25:13)

STOP CARD: 16 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather

during survey.

WB CONTROL POINT: 32 DUNDAS ST W AT SPADINA AVE

Report: TRIPS_DM - 002

Version: 002

TORONTO TRANSIT COMMISSION

WESTBOUND PERIOD 1: 07:00

PERIOD RIDING INDEX = 24.8 (AVERAGE OCCUPANCY)

AVERAGE TRIP LENGTH = 9.7 STOPS

AVERAGE ONS/VEHICLE-STOP = 2.6 AVERAGE ONS/TRIP = 103.4

DATE RUN: Tue, 2018-09-04 TIME RUN: 4:32:07 PM PAGE: 9 OF 12

ROUTE: 505 DUNDAS ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15:**M-F** (FROM 07:02 TO 25:13)

STOP CARD: 16 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather

during survey.



Report: TRIPS_DM - 002

Version: 002

WB CONTROL POINT: 32 DUNDAS ST W AT SPADINA AVE

TORONTO TRANSIT COMMISSION

WESTB	OUND PERIOD 2: 23:01						
ROUTE							
<u>STOP</u>	LOCATION	<u>START</u>	<u>ONS</u>	<u>OFFS</u>		<u>VEHICLES</u>	AVG. LOAD
1	BROADVIEW STATION	0	103	0	103	11	9.4
2	ERINDALE AT BROADVIEW	0	1	0	104	11	9.5
3	BROADVIEW AT DANFORTH AVE	0	6	0	110	11	10.0
4	BROADVIEW AT WOLFREY	0	2	1	111	11	10.1
5	BROADVIEW AT MILLBROOK	0	1	6	106	11	9.6
7	BROADVIEW AT WITHROW	0	0	4	102	11	9.3
8	BROADVIEW AT LANGLEY	0	0	6	96	11	8.7
9	BROADVIEW AT SIMPSON	0	1	2	95	11	8.6
10	BROADVIEW AT GERRARD	0	5	8	92	11	8.4
11	BROADVIEW AT MT STEPHEN	0	3	5	90	11	8.2
12	BROADVIEW AT DUNDAS ST E	0	0	6	84	11	7.6
13	DUNDAS ST E AT MUNRO	0	2	4	82	10	8.2
14	DUNDAS ST E AT RIVER	0	6	26	62	10	6.2
15	DUNDAS ST E AT SUMACH	0	3	10	55	10	5.5
16	DUNDAS ST E AT SACKVILLE	0	1	5	51	10	5.1
18	DUNDAS ST E AT PARLIAMENT	0	14	12	53	11	4.8
19	DUNDAS ST E AT ONTARIO	0	1	4	50	11	4.5
20	DUNDAS ST E AT SHERBOURNE	0	11	9	52	11	4.7
21	DUNDAS ST E AT JARVIS	0	5	0	57	11	5.2
22	DUNDAS ST E AT CHURCH	0	3	1	59	11	5.4
24	DUNDAS ST E AT VICTORIA	0	3	3	59	11	5.4
25	DUNDAS ST E AT YONGE ST	0	59	16	102	11	9.3
26	DUNDAS ST W AT BAY ST	0	18	9	111	11	10.1
27	DUNDAS ST W AT CHESTNUT ST	0	6	1	116	11	10.5
28	DUNDAS ST W AT UNIVERSITY	0	30	7	139	11	12.6
29	DUNDAS ST W AT MCCAUL	0	6	3	142	11	12.9
30	DUNDAS ST W AT BEVERLEY	0	8	5	145	11	13.2
31	DUNDAS ST W AT HURON	0	0	3	142	11	12.9
32	DUNDAS ST W AT SPADINA AVE	0	11	10	143	11	13.0
33	DUNDAS ST W AT DENISON	0	6	11	138	11	12.5
34	DUNDAS ST W AT BATHURST ST	0	13	26	125	11	11.4
35	DUNDAS ST W AT EUCLID	0	8	12	121	10	12.1
36	DUNDAS ST W AT GRACE	0	0	6	115	10	11.5
37	DUNDAS ST W AT CRAWFORD	0	0	8	107	10	10.7
38	DUNDAS ST W AT OSSINGTON	0	13	15	105	10	10.5
39	DUNDAS ST W AT DOVERCOURT	0	7	4	108	10	10.8
40	DUNDAS ST W AT RUSHOLME RD	0	1	6	103	10	10.3
41	DUNDAS ST W AT GLADSTONE	0	1	9	95	10	9.5
42	DUNDAS ST W AT DUFFERIN	0	3	18	80	10	8.0
43	DUNDAS ST W AT SHERIDAN	0	1	9	72	10	7.2
44	DUNDAS ST W AT BROCK	0	4	7	69	10	6.9
46	DUNDAS ST W AT LANSDOWNE	0	0	17	52	10	5.2
47	DUNDAS ST W AT STERLING RD	0	0	1	51	8	6.4
48	DUNDAS ST W AT SORAUREN	0	0	4	47	8	5.9
49	DUNDAS ST W AT MORROW AVE	0	0	2	45	8	5.6

ROUTE: 505 DUNDAS ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15:**M-F** (FROM 07:02 TO 25:13)

STOP CARD: 16 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather

during survey.



WB CONTROL POINT: 32 DUNDAS ST W AT SPADINA AVE

TORONTO TRANSIT COMMISSION

Report: TRIPS_DM - 002

Version: 002

WESTB	OUND PERIOD 2: 23:01						
ROUTE	<u> </u>						
<u>STOP</u>	<u>LOCATION</u>	<u>START</u>	<u>ONS</u>	<u>OFFS</u>	ACCUM.	VEHICLES	AVG. LOAD
50	DUNDAS ST W AT RONCESVALLES	0	1	3	43	8	5.4
51	DUNDAS ST W AT BLOOR	0	0	0	43	8	5.4
52	DUNDAS WEST STATION	0	0	43	0	8	0.0
TOTALS	S FOR PERIOD 2: 23:01	0	367	367	4232	495	8.5

ROUTE: 505 DUNDAS ROUTING CODE(S): _0,

COUNT: 1000 ON 2014-JAN-15:**M-F** (FROM 07:02 TO 25:13)

STOP CARD: 16 COUNT COVERAGE/METHOD: FULL(1X)/MANUAL

STOPS: 1 TO 299

COMMENTS: 24% of trips short-turned. No construction or abnormal weather

during survey.

WB CONTROL POINT: 32 DUNDAS ST W AT SPADINA AVE

T)

Report: TRIPS_DM - 002

Version: 002

TORONTO TRANSIT COMMISSION

WESTBOUND PERIOD 2: 23:01

PERIOD RIDING INDEX = 8.5 (AVERAGE OCCUPANCY)

AVERAGE TRIP LENGTH = 11.5 STOPS

AVERAGE ONS/VEHICLE-STOP = 0.7 AVERAGE ONS/TRIP = 33.4

DATE RUN: Tue, 2018-09-04 TIME RUN: 4:32:07 PM PAGE: 12 OF 12

Transportation (Road) Noise (Day/Night):

ORNAMENT - Sound Power Emissions & Source Heights

Ontario Road Noise Analysis Method for Environment and Transportation

Road Segment ID	Roadway Name	Link Description	Speed (kph)	Period (h)	Total Traffic Volumes	Auto %	Med %	Hvy %	Auto	Med	Heavy	Road Gradient (%)	Cadna/A Ground Absorpti on G		Source Height, s (m)
Dundas_N_avg	Dundas Street West	Daytime Impacts	40	16	27594	94.0%	4.8%	1.2%	25938	1324	331	0	0.00	81.2	1.0
Dulluas_iv_avg	North of Roncesvalles	Night-time Impacts	40	8	3550	94.0%	4.8%	1.2%	3337	170	43	0	0.00	75.3	1.0
Place ava	Bloor Street West	Daytime Impacts	40	16	29486	96.2%	2.6%	1.2%	28366	767	354	0	0.00	80.9	1.0
Bloor_avg	bloof street west	Night-time Impacts	40	8	3794	96.2%	2.6%	1.2%	3650	99	46	0	0.00	75.0	1.0
Roncesvalles avg	Roncesvalles Avenue	Daytime Impacts	40	16	10359	91.5%	7.4%	1.1%	9479	767	114	0	0.00	77.4	1.0
Koncesvanes_avg	Roncesvalles Avenue	Night-time Impacts	40	8	1333	91.5%	7.4%	1.1%	1220	99	15	0	0.00	71.5	1.0
Dundas_S_avg	Dundas Street West	Daytime Impacts	40	16	17235	95.4%	3.3%	1.3%	16443	569	224	0	0.00	78.9	1.1
Dulluas_5_avg	Southeast of Roncesvalles	Night-time Impacts	40	8	2218	95.4%	3.3%	1.3%	2116	73	29	0	0.00	73.0	1.1

RT/Custom - Sound Power Emissions & Source Heights

Ontario Road Noise Analysis Method for Environment and Transportation

Streetcars

Rail Segment ID	Railway Name	Link Description	Speed (kph)	Period (h)	Vehicle Type	Streetcars	Cadna/A Ground Absorption G	PWL (dBA)	Source Height (m)
Rt505, 504, 306_day	Streetcars	Route 306, 504, 505 - Daytime	30	16	ALRV	605	0.00	78.5	0.5
Rt505, 504, 306_ngt	Streetcars	Route 306, 504, 505 - Night-time	30	8	ALRV	77	0.00	72.6	0.5



Environmental Noise and Vibration Assessment

2280 Dundas Street West

Toronto, ON

SLR Project No.: 209.30128.0000



This page intentionally left blank for 2-sided printing purposes

STAMSON 5.04 NORMAL REPORT Date: 13-06-2022 21:23:44 MINISTRY OF ENVIRONMENT CONSERVATION AND PARKS / NOISE ASSESSMENT

Filename: ST5val.te Time Period: 16 hours Description: Sample Calculation - STAMSON Validation

Road data, segment # 1: DundasStW ______

Car traffic volume : 25938 veh/TimePeriod Medium truck volume : 1324 veh/TimePeriod Heavy truck volume : 331 veh/TimePeriod

Posted speed limit : 40 km/h

Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: DundasStW

Angle1 Angle2 : -90.00 deg 90.00 deg Wood depth : 0 (No woods.)

No of house rows : 0

Surface : 2 (Reflective ground surface)

Receiver source distance : 16.00 m Receiver height : 1.50 m

1 (Flat/gentle slope; no barrier) Topography :

: 0.00 Reference angle

Results segment # 1: DundasStW ______

Source height = 1.05 m

ROAD (0.00 + 65.82 + 0.00) = 65.82 dBA

Angle1 Angle2 Alpha RefLeq P.Adj D.Adj F.Adj W.Adj H.Adj B.Adj SubLeq -90 90 0.00 66.10 0.00 -0.28 0.00 0.00 0.00 0.00 65.82

Segment Leq: 65.82 dBA

Total Leq All Segments: 65.82 dBA

RT/Custom data, segment # 1: TTC

1 - ALRV:

Traffic volume : 605 veh/TimePeriod

: 30 km/h Speed

Data for Segment # 1: TTC ______

Angle1 Angle2 : -90.00 deg 90.00 deg Wood depth : 0 (No woods No of house rows : 0 (No woods.)

2 (Reflective ground surface) Surface

Receiver source distance : 16.00 m

Receiver height : 1.50 m

: (Flat/gentle slope; no barrier) Topography 1

: 0.00 Reference angle

Results segment # 1: TTC

Source height = 0.50 m

RT/Custom (0.00 + 61.89 + 0.00) = 61.89 dBA

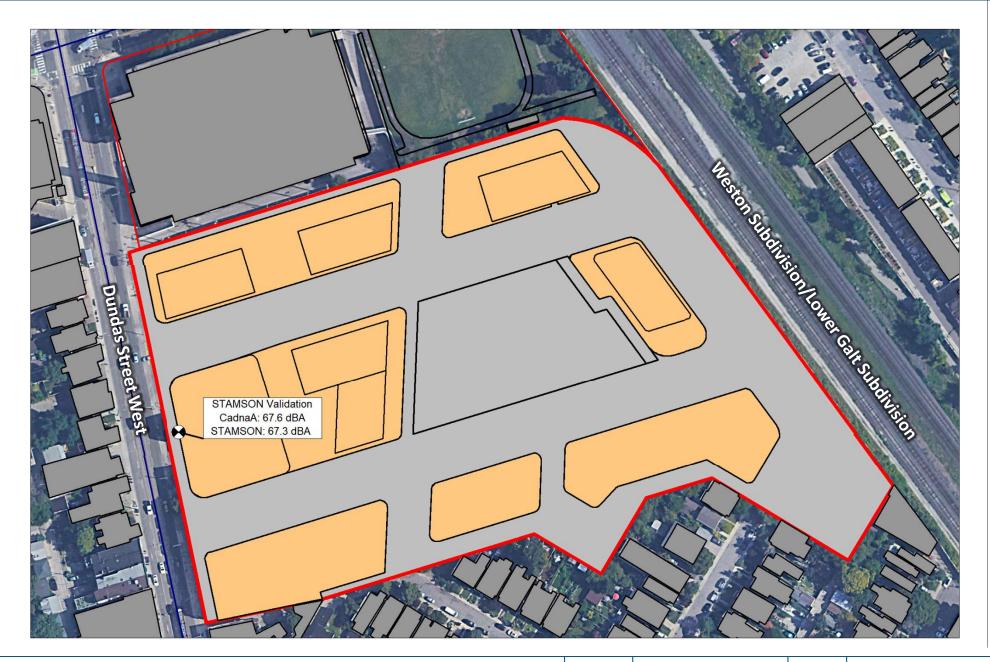
Angle1 Angle2 Alpha RefLeq D.Adj F.Adj W.Adj H.Adj B.Adj SubLeq

-90 90 0.00 62.17 -0.28 0.00 0.00 0.00 0.00 61.89

Segment Leq: 61.89 dBA

Total Leq All Segments: 61.89 dBA

TOTAL Leq FROM ALL SOURCES: 67.30



CHOICE PROPERTIES LIMITED PARTNERSHIP

2280 DUNDAS STREET WEST, TORONTO

COMPARISON OF CADNA/A AND STAMSON - ROAD NOISE

True North



Scale:	1:1	500	METRES
Date: Jun. 30, 2022	Rev	1.0	Figure No

C1

Project No. 209.30128.00000



This page intentionally left blank for 2-sided printing purposes



Detailed Façade Calculations

Environmental Noise and Vibration Assessment

2280 Dundas Street West

Toronto, ON

SLR Project No.: 209.30128.00000



This page intentionally left blank for 2-sided printing purposes

Appendix D – Detailed Façade Calculations

	1	1		n /-									a	
Receptor ID	Source Description	Façade Sound Level:	Required Indoor Sound Level:	Glazing as % of Wall Area	Exposed Wall Height (m)	Exposed Wall Length (m)	Room Depth (m)	Room Absorption:	Incident Sound Angle:	Spectrum type:	Assumed Veneer STC	Component 1 Component Category:	Glazing - Component 2 Component Category:	Requir Glazin STC
		(dBA)	(dBA)						(deg)		(STC)			(STC)
DAYTIME - LIVING/DINI	NG ROOMS													
Building 1 Podium - N - LR/DR	Roadways, Daytime	67	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 1 Podium - E - LR/DR	Roadways, Daytime	53	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 1 Podium - S - LR/DR	Roadways, Daytime	66	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	24
Building 1 Podium - W - LR/DR	Roadways, Daytime	68	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	26
Building 1-A - N - LR/DR	Roadways, Daytime	61	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/celling	C. sealed thin window, or openable thick window	19
Building 1-A - E - LR/DR	Roadways, Daytime	51	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
Building 1-A - S - LR/DR	Roadways, Daytime	60	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	18
Building 1-A - W - LR/DR	Roadways, Daytime	64	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	22
Building 1-B - N - LR/DR	Roadways, Daytime	56	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
Building 1-B - E - LR/DR	Roadways, Daytime	51	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
Building 1-B - S - LR/DR	Roadways, Daytime	53	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 1-B - W - LR/DR	Roadways, Daytime	56	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
Building 2 Podium - N - LR/DR	Roadways, Daytime	56	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
Building 2 Podium - E - LR/DR	Roadways, Daytime	55	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 2 Podium - S - LR/DR	Roadways, Daytime	48	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/celling	C. sealed thin window, or openable thick window	6
Building 2 Podium - W - LR/DR	Roadways, Daytime	52	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/celling	C. sealed thin window, or openable thick window	10
Building 2-A - N - LR/DR	Roadways, Daytime	55	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 2-A - E - LR/DR	Roadways, Daytime	53	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/celling	C. sealed thin window, or openable thick window	11
Building 2-A - S - LR/DR	Roadways, Daytime	46	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	4
Building 2-A- W - LR/DR	Roadways, Daytime	53	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 3 Podium - N - LR/DR	Roadways, Daytime	66	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	24
Building 3 Podium - E - LR/DR	Roadways, Daytime	46	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	4
Building 3 Podium - S - LR/DR	Roadways, Daytime	66	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	24
Building 3 Podium - W - LR/DR	Roadways, Daytime	68	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/celling	C. sealed thin window, or openable thick window	26
Building 3-A1 - N - LR/DR	Roadways, Daytime	52	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	10
Building 3-A1 - E - LR/DR	Roadways, Daytime	48	45	70%	2.8	3.0		Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	6
Building 3-A1 - S - LR/DR	Roadways, Daytime	53	45	70%	2.8	3.0		Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 3-A1 - W - LR/DR	Roadways, Daytime	56	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
Building 3-A2 - E - LR/DR	Roadways, Daytime	44	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	2
Building 3-A2 - S - LR/DR	Roadways, Daytime	50	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	8
Building 3-A2 - W - LR/DR	Roadways, Daytime	49	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/celling	C. sealed thin window, or openable thick window	7
Building 4 Podium - N - LR/DR	Roadways, Daytime	52	45	70%	2.8	3.0		Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/celling	C. sealed thin window, or openable thick window	10
Building 4 Podium - E - LR/DR	Roadways, Daytime	52	45	70%	2.8	3.0		Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	10
Building 4 Podium - S - LR/DR	Roadways, Daytime	44	45	70%	2.8	3.0		Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	2
Building 4 Podium - W - LR/DR	Roadways, Daytime	45	45	70%	2.8	3.0		Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	3
Building 4-A - N - LR/DR	Roadways, Daytime	51	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
Building 4-A - E - LR/DR	Roadways, Daytime	51	45	70%	2.8	3.0		Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
Building 4-A - S - LR/DR	Roadways, Daytime	45	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	3
Building 4-A - W - LR/DR	Roadways, Daytime	46	45	70%	2.8	3.0		Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	4
Building 5 - N - LR/DR	Roadways, Daytime	67	45	70%	2.8	3.0		Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 5 - E - LR/DR	Roadways, Daytime	44	45	70%	2.8	3.0		Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	2
Building 5 - S - LR/DR	Roadways, Daytime	62	45	70%	2.8	3.0		Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	20
Building 5 - W - LR/DR	Roadways, Daytime	67	45	70%	2.8	3.0		Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 6 - N - LR/DR	Roadways, Daytime	50	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	8
Building 6 - E - LR/DR	Roadways, Daytime	40	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	-2
Building 6 - S - LR/DR	Roadways, Daytime	41	45	70%	2.8	3.0		Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	-1
Building 6 - W - LR/DR	Roadways, Daytime	45	45	70%	2.8	3.0		Intermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	3
Building 7 - N - LR/DR	Roadways, Daytime	49	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	7
Building 7 - E - LR/DR	Roadways, Daytime	49	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	7
Building 7 - S - LR/DR	Roadways, Daytime	41	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/celling	C. sealed thin window, or openable thick window	-1
Building 7 - W - LR/DR	Roadways, Daytime	44	45	70%	2.8	3.0	6.0	Intermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	- 2

NIGHT-TIME - LIVING/DINING ROOMS								
Building 1 Podium - N - LR/DR Roadways, Night-time	61 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	19
Building 1 Podium - E - LR/DR Roadways, Night-time	47 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	5
Building 1 Podium - S - LR/DR Roadways, Night-time	60 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	18
Building 1 Podium - W - LR/DR Roadways, Night-time	62 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	20
Building 1-A - N - LR/DR Roadways, Night-time	55 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 1-A - E - LR/DR Roadways, Night-time	45 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	3
Building 1-A - S - LR/DR Roadways, Night-time	54 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	12
Building 1-A - W - LR/DR Roadways, Night-time	58 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
Building 1-B - N - LR/DR Roadways, Night-time	50 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/celling	C. sealed thin window, or openable thick window	8
Building 1-B - E - LR/DR Roadways, Night-time	46 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	4
Building 1-B - S - LR/DR Roadways, Night-time	47 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	5
Building 1-B - W - LR/DR Roadways, Night-time	50 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	8
Building 2 Podium - N - LR/DR Roadways, Night-time	50 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	8
Building 2 Podium - E - LR/DR Roadways, Night-time	49 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	7
Building 2 Podium - S - LR/DR Roadways, Night-time	42 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	0
Building 2 Podium - W - LR/DR Roadways, Night-time	46 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	4
Building 2-A - N - LR/DR Roadways, Night-time	49 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	7
Building 2-A - E - LR/DR Roadways, Night-time	47 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	5
Building 2-A - S - LR/DR Roadways, Night-time Building 2-A - S - LR/DR Roadways, Night-time	40 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	-2
Building 2-A- W - LR/DR Roadways, Night-time	47 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	5
Building 3 Podium - N - LR/DR Roadways, Night-time	60 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	18
Building 3 Podium - E - LR/DR Roadways, Night-time	40 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	-2
Building 3 Podium - S - LR/DR Roadways, Night-time	60 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	18
Building 3 Podium - W - LR/DR Roadways, Night-time	62 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	20
Building 3-A1 - N - LR/DR Roadways, Night-time	46 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling 45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	4
Building 3-A1 - E - LR/DR Roadways, Night-time	42 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	0
Building 3-A1 - S - LR/DR Roadways, Night-time	47 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	5
Building 3-A1 - W - LR/DR Roadways, Night-time	50 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	8
Building 3-A2 - E - LR/DR Roadways, Night-time	38 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	-4
Building 3-A2 - S - LR/DR Roadways, Night-time	44 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	2
Building 3-A2 - W - LR/DR Roadways, Night-time	44 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	2
Building 4 Podium - N - LR/DR Roadways, Night-time	46 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	4
Building 4 Podium - E - LR/DR Roadways, Night-time	46 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	4
Building 4 Podium - S - LR/DR Roadways, Night-time	38 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	-4
Building 4 Podium - W - LR/DR Roadways, Night-time	39 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	-3
Building 4-A - N - LR/DR Roadways, Night-time	45 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	3
Building 4-A - E - LR/DR Roadways, Night-time	45 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	3
Building 4-A - S - LR/DR Roadways, Night-time	39 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	-3
Building 4-A - W - LR/DR Roadways, Night-time	40 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	-2
Building 5 - N - LR/DR Roadways, Night-time	61 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	19
Building 5 - E - LR/DR Roadways, Night-time	38 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	-4
Building 5 - S - LR/DR Roadways, Night-time	56 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
Building 5 - W - LR/DR Roadways, Night-time	62 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	20
Building 6 - N - LR/DR Roadways, Night-time	44 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	2
Building 6 - E - LR/DR Roadways, Night-time	34 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	-8
Building 6 - S - LR/DR Roadways, Night-time	35 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	-7
Building 6 - W - LR/DR Roadways, Night-time	39 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	-3
Building 7 - N - LR/DR Roadways, Night-time	43 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	1
Building 7 - E - LR/DR Roadways, Night-time	43 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	1
Building 7 - S - LR/DR Roadways, Night-time	35 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	-7
Building 7 - W - LR/DR Roadways, Night-time	38 45	70% 2.8	3.0	6.0 Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	-4
Dunding , - W - Lity Dit Indauways, MgHt-time	30 43	7070 2.0	5.0	0.0 Intermediate	D. IIIIACU IVAU trainic, distallt diftralt	D. Sedicu tiller Williams, or exterior wall, or root/celling	C. acarca tilli willdow, or openable trick willdow	

		Sound L	evels	Room / Fa	çade Inpu	ts			Source Inp	outs	Veneer -	Component 1	Glazing - Component 2	
Receptor ID	Source Description	Façade Sound Level:	Required Indoor Sound Level:	Glazing as % of Wall Area	Exposed Wall Height (m)	Exposed Wall Length (m)	Denth	loom Absorption:	Incident Sound Angle:	Spectrum type:	STC	Component Category:	Component Category:	Require Glazing STC
DAYTIME - BEDROOM		(dBA)	(dBA)						(deg)		(STC)			(STC)
Building 1 Podium - N - BEDROON	Roadways, Daytime	67	45	50%	2.8	3.0	3.0 Ir	ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	27
Building 1 Podium - E - BEDROOM		53	45	50%	2.8	3.0	3.0 Ir	ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 1 Podium - S - BEDROOM	Roadways, Daytime	66	45	50%	2.8	3.0	3.0 Ir	ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	26
uilding 1 Podium - W - BEDROOM	1 Roadways, Daytime	68	45	50%	2.8	3.0	3.0 Ir	ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	28
Building 1-A - N - BEDROOM	Roadways, Daytime	61	45	50%	2.8	3.0	3.0 Ir	ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 1-A - E - BEDROOM	Roadways, Daytime	51	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 1-A - S - BEDROOM	Roadways, Daytime	60	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	20
Building 1-A - W - BEDROOM	Roadways, Daytime	64	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	24
Building 1-B - N - BEDROOM	Roadways, Daytime	56	45	50%	2.8	3.0	-	ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
Building 1-B - E - BEDROOM	Roadways, Daytime	51	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 1-B - S - BEDROOM	Roadways, Daytime	53	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 1-B - W - BEDROOM	Roadways, Daytime	56	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
uilding 2 Podium - N - BEDROON		56	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
uilding 2 Podium - E - BEDROOM		55	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	15
uilding 2 Podium - S - BEDROOM		48	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	8
uilding 2 Podium - W - BEDROON		52	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	12
Building 2-A - N - BEDROOM	Roadways, Daytime	55	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	15
Building 2-A - E - BEDROOM	Roadways, Daytime	53	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 2-A - S - BEDROOM	Roadways, Daytime	46	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	6
Building 2-A - W - BEDROOM	Roadways, Daytime	53	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
uilding 3 Podium - N - BEDROON		66	45	50%	2.8	3.0	3.0 Ir	ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	26
uilding 3 Podium - E - BEDROOM		46	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	6
uilding 3 Podium - S - BEDROOM		66	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	26
uilding 3 Podium - W - BEDROON		68	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	28
Building 3-A1 - N - BEDROOM	Roadways, Daytime	52	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	12
Building 3-A1 - E - BEDROOM	Roadways, Daytime	48	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	8
Building 3-A1 - S - BEDROOM	Roadways, Daytime	53	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 3-A1 - W - BEDROOM	Roadways, Daytime	56	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
Building 3-A2 - E - BEDROOM	Roadways, Daytime	44	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	4
Building 3-A2 - S - BEDROOM	Roadways, Daytime	50	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	10
Building 3-A2 - W - BEDROOM	Roadways, Daytime	49	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
uilding 4 Podium - N - BEDROON		52	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	12
uilding 4 Podium - E - BEDROOM		52	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	12
ilding 4 Podium - S - BEDROOM		44	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	4
ilding 4 Podium - W - BEDROOM		45	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	5
Building 4-A - N - BEDROOM	Roadways, Daytime	51	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 4-A - E - BEDROOM	Roadways, Daytime	51	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11 5
Building 4-A - S - BEDROOM	Roadways, Daytime	45 46	45 45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft	54 54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	
Building 4-A - W - BEDROOM	Roadways, Daytime	67		50%	2.8			ntermediate	0 - 90 0 - 90	D. mixed road traffic, distant aircraft D. mixed road traffic, distant aircraft		D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	6 27
Building 5 - N - BEDROOM Building 5 - E - BEDROOM	Roadways, Daytime	44	45 45	50% 50%	2.8	3.0		ntermediate ntermediate	0 - 90	D. mixed road traffic, distant aircraft D. mixed road traffic, distant aircraft	45 45	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	4
Building 5 - E - BEDROOM Building 5 - S - BEDROOM	Roadways, Daytime	62	45	50%	2.8	3.0	_	ntermediate ntermediate	0 - 90	D. mixed road traffic, distant aircraft D. mixed road traffic, distant aircraft	45		C. sealed thin window, or openable thick window	22
Building 5 - S - BEDROOM Building 5 - W - BEDROOM	Roadways, Daytime	67	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	27
Building 5 - W - BEDROOM Building 6 - N - BEDROOM	Roadways, Daytime Roadways, Daytime	50	45	50%	2.8	3.0		ntermediate ntermediate	0 - 90	D. mixed road traffic, distant aircraft D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	10
Building 6 - N - BEDROOM Building 6 - E - BEDROOM	Roadways, Daytime	40	45	50%	2.8	3.0		ntermediate	0 - 90	D. mixed road traffic, distant aircraft D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	0
Building 6 - E - BEDROOM Building 6 - S - BEDROOM		40	45	50%	2.8	3.0		ntermediate ntermediate	0 - 90	D. mixed road traffic, distant aircraft D. mixed road traffic, distant aircraft	45			1
Building 6 - S - BEDROOM Building 6 - W - BEDROOM	Roadways, Daytime	41	45	50%	2.8	3.0		ntermediate ntermediate	0 - 90	D. mixed road traffic, distant aircraft D. mixed road traffic, distant aircraft	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	_
	Roadways, Daytime										54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	5
Building 7 - N - BEDROOM	Roadways, Daytime	49	45 45	50%	2.8	3.0		ntermediate ntermediate	0 - 90	D. mixed road traffic, distant aircraft D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
Building 7 - E - BEDROOM	Roadways, Daytime	49	45	50%	2.8	3.0		ntermediate ntermediate	0 - 90	D. mixed road traffic, distant aircraft D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	1
Building 7 - S - BEDROOM Building 7 - W - BEDROOM	Roadways, Daytime				2.8	3.0		ntermediate ntermediate	0 - 90	D. mixed road traffic, distant aircraft D. mixed road traffic, distant aircraft	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	4
	Roadways, Daytime	44	45	50%								D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	

NIGHT-TIME - BEDROOM									
Building 1 Podium - N - BEDROOM Roadways, Night-time	61 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	26
Building 1 Podium - E - BEDROOM Roadways, Night-time	47 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	12
Building 1 Podium - S - BEDROOM Roadways, Night-time	60 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 1 Podium - W - BEDROOM Roadways, Night-time	62 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	27
Building 1-A - N - BEDROOM Roadways, Night-time	55 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	20
Building 1-A - E - BEDROOM Roadways, Night-time	45 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	10
Building 1-A - S - BEDROOM Roadways, Night-time	54 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	19
Building 1-A - W - BEDROOM Roadways, Night-time	58 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	23
Building 1-B - N - BEDROOM Roadways, Night-time	50 40		2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	15
Building 1-B - E - BEDROOM Roadways, Night-time	46 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 1-B - S - BEDROOM Roadways, Night-time	47 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	12
Building 1-B - W - BEDROOM Roadways, Night-time	50 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	15
Building 2 Podium - N - BEDROOM Roadways, Night-time	50 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	15
Building 2 Podium - E - BEDROOM Roadways, Night-time	49 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	14
Building 2 Podium - S - BEDROOM Roadways, Night-time	42 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	7
	46 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling 54 D. sealed thick window, or exterior wall, or roof/ceiling		11
Building 2 Podium - W - BEDROOM Roadways, Night-time								C. sealed thin window, or openable thick window	
Building 2-A - N - BEDROOM Roadways, Night-time	49 40 47 40	50%	2.8 3.0 2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling 54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
Building 2-A - E - BEDROOM Roadways, Night-time					Intermediate	0 - 90 D. mixed road traffic, distant aircraft		C. sealed thin window, or openable thick window	
Building 2-A - S - BEDROOM Roadways, Night-time	40 40	50%		3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	5
Building 2-A - W - BEDROOM Roadways, Night-time	47 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	12
Building 3 Podium - N - BEDROOM Roadways, Night-time	60 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 3 Podium - E - BEDROOM Roadways, Night-time	40 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	5
Building 3 Podium - S - BEDROOM Roadways, Night-time	60 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 3 Podium - W - BEDROOM Roadways, Night-time	62 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	27
Building 3-A1 - N - BEDROOM Roadways, Night-time	46 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 3-A1 - E - BEDROOM Roadways, Night-time	42 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	7
Building 3-A1 - S - BEDROOM Roadways, Night-time	47 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	12
Building 3-A1 - W - BEDROOM Roadways, Night-time	50 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	15
Building 3-A2 - E - BEDROOM Roadways, Night-time	38 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	3
Building 3-A2 - S - BEDROOM Roadways, Night-time	44 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
Building 3-A2 - W - BEDROOM Roadways, Night-time	44 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
Building 4 Podium - N - BEDROOM Roadways, Night-time	46 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 4 Podium - E - BEDROOM Roadways, Night-time	46 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 4 Podium - S - BEDROOM Roadways, Night-time	38 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	3
Building 4 Podium - W - BEDROOM Roadways, Night-time	39 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	4
Building 4-A - N - BEDROOM Roadways, Night-time	45 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	10
Building 4-A - E - BEDROOM Roadways, Night-time	45 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	10
Building 4-A - S - BEDROOM Roadways, Night-time	39 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	4
Building 4-A - W - BEDROOM Roadways, Night-time	40 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	5
Building 5 - N - BEDROOM Roadways, Night-time	61 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	26
Building 5 - E - BEDROOM Roadways, Night-time	38 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	3
Building 5 - S - BEDROOM Roadways, Night-time	56 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 5 - W - BEDROOM Roadways, Night-time	62 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	27
Building 6 - N - BEDROOM Roadways, Night-time	44 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
Building 6 - E - BEDROOM Roadways, Night-time	34 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	-1
Building 6 - S - BEDROOM Roadways, Night-time	35 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	0
Building 6 - W - BEDROOM Roadways, Night-time	39 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	4
Building 7 - N - BEDROOM Roadways, Night-time Building 7 - N - BEDROOM Roadways, Night-time	43 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	8
	43 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft			8
	35 40 35 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft 0 - 90 D. mixed road traffic, distant aircraft		C. sealed thin window, or openable thick window	0
Building 7 - S - BEDROOM Roadways, Night-time			2.8 3.0					C. sealed thin window, or openable thick window	
Building 7 - W - BEDROOM Roadways, Night-time	38 40	50%	2.8 3.0	3.0	Intermediate	0 - 90 D. mixed road traffic, distant aircraft	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	3

2280 Dundas Street West, Toronto	o, Project #209.30128.00000													
		Sound L	evels	Room / Fa	çade Inpu	ts			Source Inp	outs	Veneer -	Component 1	Glazing - Component 2	
Receptor ID	Source Description	Façade Sound Level:	Required Indoor Sound Level: (dBA)	Glazing as % of Wall Area	Exposed Wall Height (m)	Exposed Wall Length (m)	Room Depth (m)	Room Absorption:	Incident Sound Angle: (deg)	Spectrum type:	Assumed Veneer STC (STC)	Component Category:	Component Category:	Requi Glazin STC
DAYTIME - LIVING/DINI	NG ROOM	. ,	, ,						, ,,					
<u> </u>	Railway, Loco, Daytime	61	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C sealed thin window or openable thick window	26
Building 1 Podium - E - LR/DR	Railway, Loco, Daytime	59	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	24
Building 1 Podium - S - LR/DR	Railway, Loco, Daytime	54	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	19
Building 1 Podium - W - LR/DR	Railway, Loco, Daytime	46	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 1-A - N - LR/DR	Railway, Loco, Daytime	57	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	22
Building 1-A - E - LR/DR	Railway, Loco, Daytime	56	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 1-A - S - LR/DR	Railway, Loco, Daytime	52	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	17
Building 1-A - W - LR/DR	Railway, Loco, Daytime	46	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 1-B - N - LR/DR	Railway, Loco, Daytime	61	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	26
Building 1-B - E - LR/DR	Railway, Loco, Daytime	61	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	26
Building 1-B - S - LR/DR	Railway, Loco, Daytime	57	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	22
Building 1-B - W - LR/DR	Railway, Loco, Daytime	48	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 2 Podium - N - LR/DR	Railway, Loco, Daytime	68	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	33
Building 2 Podium - E - LR/DR	Railway, Loco, Daytime	69	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	34
Building 2 Podium - S - LR/DR	Railway, Loco, Daytime	64	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	54 54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	29
Building 2 Podium - W - LR/DR	Railway, Loco, Daytime	51 66	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16 31
Building 2-A - N - LR/DR	Railway, Loco, Daytime	68	40	70% 70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	33
Building 2-A - E - LR/DR Building 2-A - S - LR/DR	Railway, Loco, Daytime	64	40		2.8	3.0	6.0	Intermediate	0 - 90	,	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	29
Building 2-A - S - ER/DR	Railway, Loco, Daytime Railway, Loco, Daytime	54	40	70% 70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	19
Building 3 Podium - N - LR/DR	Railway, Loco, Daytime	56	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or root/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	21
Building 3 Podium - E - LR/DR	Railway, Loco, Daytime	56	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 3 Podium - S - LR/DR	Railway, Loco, Daytime	53	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/celling	C. sealed thin window, or openable thick window	18
Building 3 Podium - W - LR/DR	Railway, Loco, Daytime	46	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 3-A1 - N - LR/DR	Railway, Loco, Daytime	57	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C sealed thin window, or openable thick window	22
Building 3-A1 - E - LR/DR	Railway, Loco, Daytime	60	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 3-A1 - S - LR/DR	Railway, Loco, Daytime	56	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 3-A1 - W - LR/DR	Railway, Loco, Daytime	47	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	12
Building 3-A2 - E - LR/DR	Railway, Loco, Daytime	55	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	20
Building 3-A2 - S - LR/DR	Railway, Loco, Daytime	52	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	17
Building 3-A2 - W - LR/DR	Railway, Loco, Daytime	47	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	12
Building 4 Podium - N - LR/DR	Railway, Loco, Daytime	68	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	33
Building 4 Podium - E - LR/DR	Railway, Loco, Daytime	69	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	34
Building 4 Podium - S - LR/DR	Railway, Loco, Daytime	65	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	30
Building 4 Podium - W - LR/DR	Railway, Loco, Daytime	52	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	17
Building 4-A - N - LR/DR	Railway, Loco, Daytime	68	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	33
Building 4-A - E - LR/DR	Railway, Loco, Daytime	69	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	34
Building 4-A - S - LR/DR	Railway, Loco, Daytime	64	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	29
Building 4-A - W - LR/DR	Railway, Loco, Daytime	52	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	17
Building 5 - N - LR/DR	Railway, Loco, Daytime	56	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 5 - E - LR/DR	Railway, Loco, Daytime	56	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 5 - S - LR/DR	Railway, Loco, Daytime	55	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	20
Building 5 - W - LR/DR	Railway, Loco, Daytime	45	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	10
Building 6 - N - LR/DR	Railway, Loco, Daytime	55	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	20
Building 6 - E - LR/DR	Railway, Loco, Daytime	56	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 6 - S - LR/DR	Railway, Loco, Daytime	56	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 6 - W - LR/DR	Railway, Loco, Daytime	47	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	12
Building 7 - N - LR/DR Building 7 - E - LR/DR	Railway, Loco, Daytime	68 69	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	54 54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	33
Building 7 - E - LR/DR Building 7 - S - LR/DR	Railway, Loco, Daytime	63	40	70%		3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	28
Building 7 - S - LR/DR Building 7 - W - LR/DR	Railway, Loco, Daytime Railway, Loco, Daytime	51	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	F. diesel railway locomotive F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	16

NIGHT-TIME - LIVING/D	INING ROOM											
Building 1 Podium - N - LR/DR	Railway, Loco, Night-time	57	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	22
Building 1 Podium - E - LR/DR	Railway, Loco, Night-time	56	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 1 Podium - S - LR/DR	Railway, Loco, Night-time	51	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
Building 1 Podium - W - LR/DR	Railway, Loco, Night-time	43	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	8
Building 1-A - N - LR/DR	Railway, Loco, Night-time	53	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	18
Building 1-A - E - LR/DR	Railway, Loco, Night-time	53	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	18
Building 1-A - S - LR/DR	Railway, Loco, Night-time	48	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 1-A - W - LR/DR	Railway, Loco, Night-time	43	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	8
Building 1-B - N - LR/DR	Railway, Loco, Night-time	57	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	22
Building 1-B - E - LR/DR	Railway, Loco, Night-time	57	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	22
Building 1-B - S - LR/DR	Railway, Loco, Night-time	54	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	19
Building 1-B - W - LR/DR	Railway, Loco, Night-time	44	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
Building 2 Podium - N - LR/DR	Railway, Loco, Night-time	65	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	30
Building 2 Podium - E - LR/DR	Railway, Loco, Night-time	65	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	30
Building 2 Podium - S - LR/DR	Railway, Loco, Night-time	60	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 2 Podium - W - LR/DR	Railway, Loco, Night-time	47	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	12
Building 2-A - N - LR/DR	Railway, Loco, Night-time	62	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	27
Building 2-A - E - LR/DR	Railway, Loco, Night-time	65	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	30
Building 2-A - S - LR/DR	Railway, Loco, Night-time	60	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 2-A- W - LR/DR	Railway, Loco, Night-time	50	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	15
Building 3 Podium - N - LR/DR	Railway, Loco, Night-time	53	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	18
Building 3 Podium - E - LR/DR	Railway, Loco, Night-time	52	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	17
Building 3 Podium - S - LR/DR	Railway, Loco, Night-time	50	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	15
Building 3 Podium - W - LR/DR	Railway, Loco, Night-time	42	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	7
Building 3-A1 - N - LR/DR	Railway, Loco, Night-time	54	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	19
Building 3-A1 - E - LR/DR	Railway, Loco, Night-time	56	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 3-A1 - S - LR/DR	Railway, Loco, Night-time	53	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	18
Building 3-A1 - W - LR/DR	Railway, Loco, Night-time	43	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	8
Building 3-A2 - E - LR/DR	Railway, Loco, Night-time	51	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
Building 3-A2 - S - LR/DR	Railway, Loco, Night-time	48	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 3-A2 - W - LR/DR	Railway, Loco, Night-time	44	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
Building 4 Podium - N - LR/DR	Railway, Loco, Night-time	65	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	30
Building 4 Podium - E - LR/DR	Railway, Loco, Night-time	65	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	30
Building 4 Podium - S - LR/DR	Railway, Loco, Night-time	62	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	27
Building 4 Podium - W - LR/DR	Railway, Loco, Night-time	49	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
Building 4-A - N - LR/DR	Railway, Loco, Night-time	64	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	29
Building 4-A - E - LR/DR	Railway, Loco, Night-time	65	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	30
Building 4-A - S - LR/DR	Railway, Loco, Night-time	60	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 4-A - W - LR/DR	Railway, Loco, Night-time	49	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
Building 5 - N - LR/DR	Railway, Loco, Night-time	52	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	17
Building 5 - E - LR/DR	Railway, Loco, Night-time	52	40	70%	2.8	3.0 6.0 Intermediate 3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	17 16
Building 5 - S - LR/DR	Railway, Loco, Night-time	51 41	40	70%	2.8		0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	6
Building 5 - W - LR/DR	Railway, Loco, Night-time	51	40	70%	2.8	3.0 6.0 Intermediate 3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive F. diesel railway locomotive	45 45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
Building 6 - N - LR/DR Building 6 - E - LR/DR	Railway, Loco, Night-time	51	40	70%	2.8	3.0 6.0 Intermediate 3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
Building 6 - E - LR/DR Building 6 - S - LR/DR	Railway, Loco, Night-time Railway, Loco, Night-time	52	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	45		C. sealed thin window, or openable thick window	17
Building 6 - S - LR/DR Building 6 - W - LR/DR	Railway, Loco, Night-time Railway, Loco, Night-time	44	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
Building 6 - W - LR/DR Building 7 - N - LR/DR	Railway, Loco, Night-time	65	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or root/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	30
Building 7 - N - LR/DR	Railway, Loco, Night-time	65	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or root/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	30
Building 7 - S - LR/DR	Railway, Loco, Night-time	59	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	24
Building 7 - W - LR/DR	Railway, Loco, Night-time	48	40	70%	2.8	3.0 6.0 Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	13
bulluling / - W - LK/DK	nanway, Loco, Night-time	40	40	70%	2.0	3.0 0.0 Intermediate	0 - 90	i. dieserranway iocomotive	54	D. Sealed trick willdow, or exterior wall, or root/celling	c. searcu tilli willdow, of openable trick willdow	13

Receptor ID						ts			Source In	iuts		Component 1	Glazing - Component 2	
	Source Description	Façade Sound Level:	Required Indoor Sound Level: (dBA)	Glazing as % of Wall Area	Exposed Wall Height (m)	Exposed Wall Length (m)	Room Depth (m)	Room Absorption:	Incident Sound Angle: (deg)	Spectrum type:	Assumed Veneer STC (STC)	1	Component Category:	Require Glazing STC (STC)
DAYTIME - BEDROOM		(dDA)	(GDA)						(ucg)		(510)			(510)
Building 1 Podium - N - BEDROON	1 Railway, Loco, Daytime	61	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	28
Building 1 Podium - E - BEDROOM	Railway, Loco, Daytime	59	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	26
Building 1 Podium - S - BEDROOM		54	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 1 Podium - W - BEDROON		46	40	50%	2.8	3.0		Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 1-A - N - BEDROOM	Railway, Loco, Daytime	57	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	24
Building 1-A - E - BEDROOM	Railway, Loco, Daytime	56	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	23
Building 1-A - S - BEDROOM	Railway, Loco, Daytime	52	40	50%	2.8	3.0		Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	19
Building 1-A - W - BEDROOM	Railway, Loco, Daytime	46	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 1-B - N - BEDROOM	Railway, Loco, Daytime	61	40	50%	2.8	3.0		Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	28
Building 1-B - E - BEDROOM	Railway, Loco, Daytime	61	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	28
Building 1-B - S - BEDROOM	Railway, Loco, Daytime	57	40	50%	2.8	3.0		Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	24
Building 1-B - W - BEDROOM	Railway, Loco, Daytime	48	40	50%	2.8	3.0		Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	15
Building 2 Podium - N - BEDROON		68	40	50%	2.8	3.0		Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	35
Building 2 Podium - E - BEDROOM		69	40	50%	2.8	3.0		Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	36
Building 2 Podium - S - BEDROOM		64	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	31
Building 2 Podium - W - BEDROOM		51	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	18
Building 2-A - N - BEDROOM	Railway, Loco, Daytime	66	40	50%	2.8	3.0		Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	33
Building 2-A - E - BEDROOM	Railway, Loco, Daytime	68	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	35
Building 2-A - S - BEDROOM	Railway, Loco, Daytime	64	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	31
Building 2-A - W - BEDROOM	Railway, Loco, Daytime	54	40	50%	2.8	3.0	_	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 3 Podium - N - BEDROON		56	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	23
Building 3 Podium - E - BEDROOM		56	40	50%	2.8	3.0		Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	23
Building 3 Podium - S - BEDROOM		53	40	50%	2.8	3.0		Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	20
Building 3 Podium - W - BEDROOM		46	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 3-A1 - N - BEDROOM	Railway, Loco, Daytime	57	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	24
Building 3-A1 - E - BEDROOM	Railway, Loco, Daytime	60	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	27
Building 3-A1 - S - BEDROOM	Railway, Loco, Daytime	56	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	23
Building 3-A1 - W - BEDROOM	Railway, Loco, Daytime	47	40	50%	2.8	3.0		Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
Building 3-A2 - E - BEDROOM	Railway, Loco, Daytime	55	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	22
Building 3-A2 - S - BEDROOM	Railway, Loco, Daytime	52	40	50%	2.8	3.0		Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	19
Building 3-A2 - W - BEDROOM	Railway, Loco, Daytime	47	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
Building 4 Podium - N - BEDROOM		68	40	50%	2.8	3.0		Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	35
Building 4 Podium - E - BEDROOM		69	40	50%	2.8	3.0		Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	36
Building 4 Podium - S - BEDROOM Building 4 Podium - W - BEDROON		65 52	40	50% 50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	32 19
Building 4 Podium - W - BEDROOM Building 4-A - N - BEDROOM	Railway, Loco, Daytime Railway, Loco, Daytime	68	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window or openable thick window	35
Building 4-A - N - BEDROOM Building 4-A - E - BEDROOM	Railway, Loco, Daytime Railway, Loco, Daytime	69	40	50%	2.8	3.0		Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	36
Building 4-A - E - BEDROOM Building 4-A - S - BEDROOM	Railway, Loco, Daytime Railway, Loco, Daytime	64	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling		36
Building 4-A - S - BEDROOM Building 4-A - W - BEDROOM	Railway, Loco, Daytime Railway, Loco, Daytime	52	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	19
Building 4-A - W - BEDROOM Building 5 - N - BEDROOM	Railway, Loco, Daytime Railway, Loco, Daytime	56	40	50%	2.8	3.0		Intermediate	0 - 90		45			23
Building 5 - R - BEDROOM	Railway, Loco, Daytime Railway, Loco, Daytime	56	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	23
Building 5 - S - BEDROOM	Railway, Loco, Daytime	55	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	22
Building 5 - W - BEDROOM	Railway, Loco, Daytime	45	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or root/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	12
Building 6 - N - BEDROOM	Railway, Loco, Daytime	55	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	22
Building 6 - E - BEDROOM	Railway, Loco, Daytime	56	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	23
Building 6 - E - BEDROOM	Railway, Loco, Daytime	56	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or root/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	23
Building 6 - W - BEDROOM	Railway, Loco, Daytime	47	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	45	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	14
Building 7 - N - BEDROOM	Railway, Loco, Daytime	68	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or root/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	35
Building 7 - E - BEDROOM	Railway, Loco, Daytime	69	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or root/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	36
Building 7 - E - BEDROOM Building 7 - S - BEDROOM	Railway, Loco, Daytime Railway, Loco, Daytime	63	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or root/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	30
Building 7 - W - BEDROOM	Railway, Loco, Daytime	51	40	50%	2.8	3.0		Intermediate	0 - 90	F. diesel railway locomotive	54	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	18

NIGHT-TIME - BEDROOM								
Building 1 Podium - N - BEDROOM Railway, Loco, Night-time	57 35	50% 2	.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	29
Building 1 Podium - E - BEDROOM Railway, Loco, Night-time	56 35	50% 2	.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	28
Building 1 Podium - S - BEDROOM Railway, Loco, Night-time	51 35	50% 2	.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	23
Building 1 Podium - W - BEDROOM Railway, Loco, Night-time	43 35	50% 2	.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	15
Building 1-A - N - BEDROOM Railway, Loco, Night-time	53 35	50% 2	.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 1-A - E - BEDROOM Railway, Loco, Night-time	53 35	50% 2	.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 1-A - S - BEDROOM Railway, Loco, Night-time	48 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	20
Building 1-A - W - BEDROOM Railway, Loco, Night-time	43 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	15
Building 1-B - N - BEDROOM Railway, Loco, Night-time	57 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	29
Building 1-B - E - BEDROOM Railway, Loco, Night-time	57 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	29
Building 1-B - S - BEDROOM Railway, Loco, Night-time	54 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	26
Building 1-B - W - BEDROOM Railway, Loco, Night-time	44 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
Building 2 Podium - N - BEDROOM Railway, Loco, Night-time	65 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	37
Building 2 Podium - E - BEDROOM Railway, Loco, Night-time	65 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	37
Building 2 Podium - S - BEDROOM Railway, Loco, Night-time	60 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive		C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	32
	47 35		.8 3.0					19
Building 2 Podium - W - BEDROOM Railway, Loco, Night-time			.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	
Building 2-A - N - BEDROOM Railway, Loco, Night-time	62 35 65 35		.8 3.0	3.0 Intermediate 3.0 Intermediate	0 - 90 F. diesel railway locomotive 0 - 90 F. diesel railway locomotive	54 D. sealed thick window, or exterior wall, or roof/ceiling 54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	34 37
Building 2-A - E - BEDROOM Railway, Loco, Night-time							C. sealed thin window, or openable thick window	
Building 2-A - S - BEDROOM Railway, Loco, Night-time	60 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	32
Building 2-A - W - BEDROOM Railway, Loco, Night-time	50 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	22
Building 3 Podium - N - BEDROOM Railway, Loco, Night-time	53 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 3 Podium - E - BEDROOM Railway, Loco, Night-time	52 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	24
Building 3 Podium - S - BEDROOM Railway, Loco, Night-time	50 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	22
Building 3 Podium - W - BEDROOM Railway, Loco, Night-time	42 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
Building 3-A1 - N - BEDROOM Railway, Loco, Night-time	54 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	26
Building 3-A1 - E - BEDROOM Railway, Loco, Night-time	56 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	28
Building 3-A1 - S - BEDROOM Railway, Loco, Night-time	53 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 3-A1 - W - BEDROOM Railway, Loco, Night-time	43 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	15
Building 3-A2 - E - BEDROOM Railway, Loco, Night-time	51 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	23
Building 3-A2 - S - BEDROOM Railway, Loco, Night-time	48 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	20
Building 3-A2 - W - BEDROOM Railway, Loco, Night-time	44 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
Building 4 Podium - N - BEDROOM Railway, Loco, Night-time	65 35	50% 2	.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	37
Building 4 Podium - E - BEDROOM Railway, Loco, Night-time	65 35	50% 2	.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	37
Building 4 Podium - S - BEDROOM Railway, Loco, Night-time	62 35	50% 2	.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	34
Building 4 Podium - W - BEDROOM Railway, Loco, Night-time	49 35	50% 2	.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 4-A - N - BEDROOM Railway, Loco, Night-time	64 35	50% 2	.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	36
Building 4-A - E - BEDROOM Railway, Loco, Night-time	65 35	50% 2	.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	37
Building 4-A - S - BEDROOM Railway, Loco, Night-time	60 35	50% 2	.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	32
Building 4-A - W - BEDROOM Railway, Loco, Night-time	49 35	50% 2	.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 5 - N - BEDROOM Railway, Loco, Night-time	52 35	50% 2	.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	24
Building 5 - E - BEDROOM Railway, Loco, Night-time	52 35	50% 2	.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	24
Building 5 - S - BEDROOM Railway, Loco, Night-time	51 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	23
Building 5 - W - BEDROOM Railway, Loco, Night-time	41 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 6 - N - BEDROOM Railway, Loco, Night-time	51 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	23
Building 6 - E - BEDROOM Railway, Loco, Night-time	52 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	24
Building 6 - S - BEDROOM Railway, Loco, Night-time	52 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	24
Building 6 - W - BEDROOM Railway, Loco, Night-time	44 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
Building 7 - N - BEDROOM Railway, Loco, Night-time	65 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	37
Building 7 - E - BEDROOM Railway, Loco, Night-time Railway, Loco, Night-time	65 35		.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	54 D. sealed thick window, or exterior wall, or roof/ceiling 54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	37
	59 35		.8 3.0	3.0 Intermediate				31
Building 7 - S - BEDROOM Railway, Loco, Night-time	48 35		.8 3.0	3.0 Intermediate		54 D. sealed thick window, or exterior wall, or roof/ceiling 54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	20
Building 7 - W - BEDROOM Railway, Loco, Night-time	48 35	50% 2	.8 3.0	3.0 Intermediate	0 - 90 F. diesel railway locomotive	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	20

S		Sound Le	evels	Room / Façade Inputs					Source Inputs		Veneer - Component 1		Glazing - Component 2	
Receptor ID	Source Description	Façade Sound Level:	Required Indoor Sound Level: (dBA)	Glazing as % of Wall Area	Exposed Wall Height (m)	Exposed Wall Length (m)	Room Depth (m)	Room Absorption:	Incident Sound Angle:	Spectrum type:	Assumed Veneer STC (STC)	Component Category:	Component Category:	Require Glazing STC
DAYTIME - LIVING/DIN	NING ROOM													
Building 1 Podium - N - LR/DR	Railway, Loco, Daytime	57	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	17
Building 1 Podium - E - LR/DR	Railway, Loco, Daytime	56	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
Building 1 Podium - S - LR/DR	Railway, Loco, Daytime	51	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 1 Podium - W - LR/DR	Railway, Loco, Daytime	43	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	3
Building 1-A - N - LR/DR	Railway, Loco, Daytime	53	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 1-A - E - LR/DR	Railway, Loco, Daytime	53	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 1-A - S - LR/DR	Railway, Loco, Daytime	49	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
Building 1-A - W - LR/DR	Railway, Loco, Daytime	43	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	3
Building 1-B - N - LR/DR	Railway, Loco, Daytime	58	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	18
Building 1-B - E - LR/DR	Railway, Loco, Daytime	58	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	18
Building 1-B - S - LR/DR	Railway, Loco, Daytime	54 45	40	70% 70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45 45	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
Building 1-B - W - LR/DR Building 2 Podium - N - LR/DR	Railway, Loco, Daytime Railway, Loco, Daytime	65	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or root/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	25
Building 2 Podium - E - LR/DR	Railway, Loco, Daytime	66	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	26
Building 2 Podium - S - LR/DR	Railway, Loco, Daytime	61	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 2 Podium - W - LR/DR	Railway, Loco, Daytime	47	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	7
Building 2-A - N - LR/DR	Railway, Loco, Daytime	62	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	22
Building 2-A - E - LR/DR	Railway, Loco, Daytime	65	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 2-A - S - LR/DR	Railway, Loco, Daytime	60	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	20
Building 2-A- W - LR/DR	Railway, Loco, Daytime	50	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	10
Building 3 Podium - N - LR/DR	Railway, Loco, Daytime	53	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 3 Podium - E - LR/DR	Railway, Loco, Daytime	53	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 3 Podium - S - LR/DR	Railway, Loco, Daytime	50	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	10
Building 3 Podium - W - LR/DR	Railway, Loco, Daytime	42	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	2
Building 3-A1 - N - LR/DR	Railway, Loco, Daytime	54	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
Building 3-A1 - E - LR/DR	Railway, Loco, Daytime	56	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
Building 3-A1 - S - LR/DR	Railway, Loco, Daytime	53	40	70%	2.8	3.0	6.0	Intermediate Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 3-A1 - W - LR/DR Building 3-A2 - E - LR/DR	Railway, Loco, Daytime Railway, Loco, Daytime	52 52	40	70% 70%	2.8	3.0	6.0	Intermediate	0 - 90 0 - 90	B. avg aircraft, railway wheel noise B. avg aircraft, railway wheel noise	45 45	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	12
Building 3-A2 - E - LR/DR	Railway, Loco, Daytime	49	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
Building 3-A2 - W - LR/DR	Railway, Loco, Daytime	44	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	4
Building 4 Podium - N - LR/DR	Railway, Loco, Daytime	65	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 4 Podium - E - LR/DR	Railway, Loco, Daytime	66	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	26
Building 4 Podium - S - LR/DR	Railway, Loco, Daytime	62	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	22
Building 4 Podium - W - LR/DR	Railway, Loco, Daytime	49	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
Building 4-A - N - LR/DR	Railway, Loco, Daytime	64	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	24
Building 4-A - E - LR/DR	Railway, Loco, Daytime	65	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 4-A - S - LR/DR	Railway, Loco, Daytime	61	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 4-A - W - LR/DR	Railway, Loco, Daytime	49	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
Building 5 - N - LR/DR	Railway, Loco, Daytime	52	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	12
Building 5 - E - LR/DR Building 5 - S - LR/DR	Railway, Loco, Daytime	51 50	40	70% 70%	2.8	3.0	6.0	Intermediate	0 - 90 0 - 90	B. avg aircraft, railway wheel noise	45 45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 5 - W - LR/DR	Railway, Loco, Daytime Railway, Loco, Daytime	42	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	2
Building 5 - W - LR/DR	Railway, Loco, Daytime	52	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or root/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	12
Building 6 - E - LR/DR	Railway, Loco, Daytime	51	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed trin window, or openable thick window C. sealed thin window, or openable thick window	11
Building 6 - S - LR/DR	Railway, Loco, Daytime	51	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 6 - W - LR/DR	Railway, Loco, Daytime	44	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	4
Building 7 - N - LR/DR	Railway, Loco, Daytime	65	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 7 - E - LR/DR	Railway, Loco, Daytime	66	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	26
Building 7 - S - LR/DR	Railway, Loco, Daytime	60	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	20
Building 7 - W - LR/DR	Railway, Loco, Daytime	48	40	70%	2.8	3.0	6.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	8

NIGHT-TIME - LIVING/D	INING ROOM												
Building 1 Podium - N - LR/DR	Railway, Loco, Night-time	53	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 1 Podium - E - LR/DR	Railway, Loco, Night-time	52	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	12
Building 1 Podium - S - LR/DR	Railway, Loco, Night-time	47	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	7
Building 1 Podium - W - LR/DR	Railway, Loco, Night-time	39	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	-1
	Railway, Loco, Night-time	49	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
Building 1-A - E - LR/DR	Railway, Loco, Night-time	49	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
	Railway, Loco, Night-time	44	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	4
Building 1-A - W - LR/DR	Railway, Loco, Night-time	39	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	-1
Building 1-B - N - LR/DR	Railway, Loco, Night-time	54	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
	Railway, Loco, Night-time	54	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
	Railway, Loco, Night-time	50	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	10
	Railway, Loco, Night-time	41	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	1
	Railway, Loco, Night-time	61	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 2 Podium - E - LR/DR	Railway, Loco, Night-time	62	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	22
Building 2 Podium - S - LR/DR	Railway, Loco, Night-time	57	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	17
	Railway, Loco, Night-time	43	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	3
	Railway, Loco, Night-time	58	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	18
	Railway, Loco, Night-time	61	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
	Railway, Loco, Night-time	56	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
	Railway, Loco, Night-time	46	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	6
	Railway, Loco, Night-time	49	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
Building 3 Podium - E - LR/DR	Railway, Loco, Night-time	49	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
Building 3 Podium - S - LR/DR	Railway, Loco, Night-time	46	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	6
	Railway, Loco, Night-time	38	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	-2
	Railway, Loco, Night-time	50	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	10
	Railway, Loco, Night-time	52	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	12
	Railway, Loco, Night-time	49	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
	Railway, Loco, Night-time	40	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	0
	Railway, Loco, Night-time	48	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	8
	Railway, Loco, Night-time	45	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	5
	Railway, Loco, Night-time	40	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	0
	Railway, Loco, Night-time	61	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
	Railway, Loco, Night-time	62	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	22
Building 4 Podium - S - LR/DR	Railway, Loco, Night-time	58	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	18
	Railway, Loco, Night-time	45	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	5
	Railway, Loco, Night-time	60	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	20
	Railway, Loco, Night-time	61	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	21
	Railway, Loco, Night-time	57	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	17
	Railway, Loco, Night-time	45	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	5
	Railway, Loco, Night-time	48	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	8
	Railway, Loco, Night-time	48	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	7
	Railway, Loco, Night-time	46	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	6
		38	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45			-2
	Railway, Loco, Night-time	47	40	70%	2.8	3.0	6.0 Intermediate	0 - 90		45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	7
	Railway, Loco, Night-time	47	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	6
	Railway, Loco, Night-time Railway, Loco, Night-time	46	40	70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	7
		47	40	70%	2.8	3.0	6.0 Intermediate	0 - 90			D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	0
	Railway, Loco, Night-time		40		2.8	3.0			B. avg aircraft, railway wheel noise	45 54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
	Railway, Loco, Night-time	61 62	40	70% 70%	2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
	Railway, Loco, Night-time	56	40		2.8	3.0	6.0 Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
	Railway, Loco, Night-time	44	40	70% 70%	2.8	3.0	6.0 Intermediate		B. avg aircraft, railway wheel noise		D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16 4
Building 7 - W - LR/DR	Railway, Loco, Night-time	44	40	70%	2.8	3.0	b.U Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	4

		Sound Le	evels	Room / Fa	çade Inpu	ts			Source In	outs	Veneer -	Component 1	Glazing - Component 2	
Receptor ID	Source Description	Façade Sound Level: (dBA)	Required Indoor Sound Level: (dBA)	Glazing as % of Wall Area	Exposed Wall Height (m)	Exposed Wall Length (m)	Room Depth (m)	Room Absorption:	Incident Sound Angle: (deg)	Spectrum type:	Assumed Veneer STC	Component Category:	Component Category:	Require Glazing STC (STC)
DAYTIME - BEDROOM		(ubA)	(GDA)						(ueg)		(510)			(510)
Building 1 Podium - N - BEDROOI	A Railway, Loco, Daytime	57	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	19
Building 1 Podium - E - BEDROOF		56	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	18
Building 1 Podium - S - BEDROOM		51	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 1 Podium - W - BEDROO		43	40	50%	2.8	3.0		Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	5
Building 1-A - N - BEDROOM	Railway, Loco, Daytime	53	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	15
Building 1-A - E - BEDROOM	Railway, Loco, Daytime	53	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	15
Building 1-A - S - BEDROOM	Railway, Loco, Daytime	49	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 1-A - W - BEDROOM	Railway, Loco, Daytime	43	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	5
Building 1-B - N - BEDROOM	Railway, Loco, Daytime	58	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	20
Building 1-B - E - BEDROOM	Railway, Loco, Daytime	58	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	20
Building 1-B - S - BEDROOM	Railway, Loco, Daytime	54	40	50%	2.8	3.0		Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
Building 1-B - W - BEDROOM	Railway, Loco, Daytime	45	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	7
Building 2 Podium - N - BEDROOI		65	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	27
Building 2 Podium - E - BEDROOF		66	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	28
Building 2 Podium - S - BEDROOM		61	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	23
Building 2 Podium - W - BEDROO		47	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	9
Building 2-A - N - BEDROOM	Railway, Loco, Daytime	62	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	24
Building 2-A - E - BEDROOM	Railway, Loco, Daytime	65	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	27
Building 2-A - S - BEDROOM	Railway, Loco, Daytime	60	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	22
Building 2-A - W - BEDROOM	Railway, Loco, Daytime	50	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	12
Building 3 Podium - N - BEDROOI		53	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	15
Building 3 Podium - E - BEDROOF		53	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	15
Building 3 Podium - S - BEDROOM		50	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	12
Building 3 Podium - W - BEDROO		42	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	4
Building 3-A1 - N - BEDROOM	Railway, Loco, Daytime	54	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
Building 3-A1 - E - BEDROOM	Railway, Loco, Daytime	56	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	18
Building 3-A1 - S - BEDROOM	Railway, Loco, Daytime	53	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	15
Building 3-A1 - W - BEDROOM	Railway, Loco, Daytime	44	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	6
Building 3-A2 - E - BEDROOM	Railway, Loco, Daytime	52	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
Building 3-A2 - S - BEDROOM	Railway, Loco, Daytime	49	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 3-A2 - W - BEDROOM	Railway, Loco, Daytime	44	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	6
Building 4 Podium - N - BEDROOI		65	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	27
Building 4 Podium - E - BEDROOF		66	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	28
Building 4 Podium - S - BEDROOM Building 4 Podium - W - BEDROO		62 49	40	50% 50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54 54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	24 11
Building 4-A - N - BEDROOM	Railway, Loco, Daytime	64	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window or openable thick window	26
Building 4-A - E - BEDROOM	Railway, Loco, Daytime	65	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	27
Building 4-A - S - BEDROOM	Railway, Loco, Daytime Railway, Loco, Daytime	61	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54			23
Building 4-A - S - BEDROOM Building 4-A - W - BEDROOM	Railway, Loco, Daytime Railway, Loco, Daytime	49	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	11
Building 5 - N - BEDROOM	Railway, Loco, Daytime	52	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45			14
Building 5 - E - BEDROOM	Railway, Loco, Daytime	51	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	13
Building 5 - S - BEDROOM	Railway, Loco, Daytime	50	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	12
Building 5 - W - BEDROOM	Railway, Loco, Daytime	42	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or root/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	4
Building 6 - N - BEDROOM	Railway, Loco, Daytime	52	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
Building 6 - E - BEDROOM	Railway, Loco, Daytime	51	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	13
Building 6 - E - BEDROOM	Railway, Loco, Daytime	51	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or root/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	13
Building 6 - S - BEDROOM Building 6 - W - BEDROOM	Railway, Loco, Daytime	44	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise B. avg aircraft, railway wheel noise	45	D. sealed thick window, or exterior wall, or roof/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	6
Building 7 - N - BEDROOM	Railway, Loco, Daytime	65	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or root/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	27
Building 7 - N - BEDROOM	Railway, Loco, Daytime	66	40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or root/ceiling D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	28
		60												
Building 7 - S - BEDROOM	Railway, Loco, Daytime		40	50%	2.8	3.0	3.0	Intermediate	0 - 90	B. avg aircraft, railway wheel noise	54	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	22

NIGHT-TIME - BEDROOM								
Building 1 Podium - N - BEDROOM Railway, Loco, Night-time	53 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	20
Building 1 Podium - E - BEDROOM Railway, Loco, Night-time	52 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	19
Building 1 Podium - S - BEDROOM Railway, Loco, Night-time	47 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
Building 1 Podium - W - BEDROOM Railway, Loco, Night-time	39 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	6
Building 1-A - N - BEDROOM Railway, Loco, Night-time	49 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
Building 1-A - E - BEDROOM Railway, Loco, Night-time	49 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
Building 1-A - S - BEDROOM Railway, Loco, Night-time	44 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11
Building 1-A - W - BEDROOM Railway, Loco, Night-time	39 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	6
Building 1-B - N - BEDROOM Railway, Loco, Night-time	54 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 1-B - E - BEDROOM Railway, Loco, Night-time	54 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	21
Building 1-B - S - BEDROOM Railway, Loco, Night-time	50 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise			17
			3.0				C. sealed thin window, or openable thick window	
Building 1-B - W - BEDROOM Railway, Loco, Night-time				3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	8
Building 2 Podium - N - BEDROOM Railway, Loco, Night-time	61 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	28
Building 2 Podium - E - BEDROOM Railway, Loco, Night-time	62 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	29
Building 2 Podium - S - BEDROOM Railway, Loco, Night-time	57 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	24
Building 2 Podium - W - BEDROOM Railway, Loco, Night-time	43 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	10
Building 2-A - N - BEDROOM Railway, Loco, Night-time	58 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 2-A - E - BEDROOM Railway, Loco, Night-time	61 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	28
Building 2-A - S - BEDROOM Railway, Loco, Night-time	56 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	23
Building 2-A - W - BEDROOM Railway, Loco, Night-time	46 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 3 Podium - N - BEDROOM Railway, Loco, Night-time	49 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
Building 3 Podium - E - BEDROOM Railway, Loco, Night-time	49 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
Building 3 Podium - S - BEDROOM Railway, Loco, Night-time	46 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 3 Podium - W - BEDROOM Railway, Loco, Night-time	38 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	5
Building 3-A1 - N - BEDROOM Railway, Loco, Night-time	50 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	17
Building 3-A1 - E - BEDROOM Railway, Loco, Night-time	52 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	19
Building 3-A1 - S - BEDROOM Railway, Loco, Night-time	49 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	16
Building 3-A1 - W - BEDROOM Railway, Loco, Night-time	40 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	7
Building 3-A2 - E - BEDROOM Railway, Loco, Night-time	48 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	15
Building 3-A2 - S - BEDROOM Railway, Loco, Night-time	45 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	12
Building 3-A2 - W - BEDROOM Railway, Loco, Night-time	40 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	7
Building 4 Podium - N - BEDROOM Railway, Loco, Night-time	61 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	28
Building 4 Podium - E - BEDROOM Railway, Loco, Night-time	62 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	29
Building 4 Podium - S - BEDROOM Railway, Loco, Night-time	58 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	25
Building 4 Podium - W - BEDROOM Railway, Loco, Night-time	45 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	12
Building 4-A - N - BEDROOM Railway, Loco, Night-time	60 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	27
	61 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	28
Building 4-A - E - BEDROOM Railway, Loco, Night-time Building 4-A - S - BEDROOM Railway, Loco, Night-time	57 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window C. sealed thin window, or openable thick window	24
	45 35	50% 2.8		3.0 Intermediate				12
Building 4-A - W - BEDROOM Railway, Loco, Night-time	45 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise 0 - 90 B. avg aircraft, railway wheel noise		C. sealed thin window, or openable thick window	12
Building 5 - N - BEDROOM Railway, Loco, Night-time			3.0				C. sealed thin window, or openable thick window	
Building 5 - E - BEDROOM Railway, Loco, Night-time	47 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
Building 5 - S - BEDROOM Railway, Loco, Night-time	46 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 5 - W - BEDROOM Railway, Loco, Night-time	38 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	5
Building 6 - N - BEDROOM Railway, Loco, Night-time	47 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
Building 6 - E - BEDROOM Railway, Loco, Night-time	46 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	13
Building 6 - S - BEDROOM Railway, Loco, Night-time	47 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	14
Building 6 - W - BEDROOM Railway, Loco, Night-time	40 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	45 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	7
Building 7 - N - BEDROOM Railway, Loco, Night-time	61 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	28
Building 7 - E - BEDROOM Railway, Loco, Night-time	62 35	50% 2.8		3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	29
Building 7 - S - BEDROOM Railway, Loco, Night-time	56 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	23
Building 7 - W - BEDROOM Railway, Loco, Night-time	44 35	50% 2.8	3.0	3.0 Intermediate	0 - 90 B. avg aircraft, railway wheel noise	54 D. sealed thick window, or exterior wall, or roof/ceiling	C. sealed thin window, or openable thick window	11



Ventilation, Warning Clause and Barrier Summary

Environmental Noise and Vibration Assessment

2280 Dundas Street West

Toronto, ON

SLR Project No.: 209.30128.0000



This page intentionally left blank for 2-sided printing purposes

Ventilation, Warning Clause and Barrier Summary

The following Warning Clauses are recommended for inclusion in agreements registered on Title for the residential units, and included in all agreements of purchase and sale or lease, and all rental agreements.

A summary of the Warning Clause and Ventilation Requirements is included in Table E1.

MECP Type A: "Purchasers/tenants are advised that sound levels due to increasing road/rail 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."

MECP Type C: "This 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 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."

MECP 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."

MECP Type E: "Purchasers/tenants are advised that sound levels due to the proximity of the adjacent industries (commercial plazas/Church), noise from these facilities may at times be audible."

CNR: "Purchasers are advised that Canadian National Railway Company (CNR) or its assigns or successors in interest has or have a right-of-way within 300 metres from the land the subject thereof. There may be alterations to or expansions of the rail facilities on such right-of-way in the future, including the possibility that the railway or its assigns or successors as aforesaid may expand its operations, which expansion may affect the living environment of the residents in the vicinity, notwithstanding the inclusion of any noise and vibration attenuating measures in the design of the development and individual dwelling(s). CNR will not be responsible for any complaints or claims arising from use of such facilities and/or operations on, over or under the aforesaid right-of-way."

Metrolinx: "Purchasers are advised that Metrolinx (formerly GO Transit) or its assigns or successors in interest has or have a right-of-way within 300 metres from the land the subject thereof. There may be alterations to or expansions of the rail facilities on such right-of-way in the future, including the possibility that the railway or its assigns or successors as aforesaid may expand its operations, which expansion may affect the living environment of the residents in the vicinity, notwithstanding the inclusion of any noise and vibration attenuating measures in the design of the development and individual dwelling(s). Metrolinx will not be responsible for any complaints or claims arising from use of such facilities and/or operations on, over or under the aforesaid right-of-way."

Table E1: Summary of Ventilation and Warning Clause and Barrier Requirements

Residential Units/Locations	Barrier Required?	Air Conditioning Requirement ^[1]	Warning Clause
Building 01	No	AC Required	Type A, Type D, Type E, CN, Metrolinx
Building 01-A, 01-B	No	AC Required	Type D, Type E, CN, Metrolinx
Building 02	No	AC Required	Type A, Type D, Type E, CN, Metrolinx
Building 02-A	No	AC Required	Type D, Type E, CN, Metrolinx
Building 03, 03-A1, 03-A2	No	AC Required	Type D, Type E, CN, Metrolinx
Building 03-A2	No	AC Required	Type A, Type D, Type E, CN, Metrolinx
Building 04, 04-A		AC Required	Type D, Type E, CN, Metrolinx
Building 05		AC Required	Type D, Type E, CN, Metrolinx
Building 06		Provision for AC	Type C, Type E, CN, Metrolinx
Building 07		AC Required	Type D, Type E, CN, Metrolinx

Notes: [1] Provision for AC = forced air heating with a provision for installation of central air conditioning.