ACOUSTICAL REPORT
RESIDENTIAL DEVELOPMENT
1095 N TALBOT ROAD
WINDSOR, ONTARIO

PROJECT NO. 21-021

DATED: MARCH 16, 2020

BAIRD | AE
architecture + engineering

27 Princess St., Unit 102
Leamington, ON N8H 2X8
519.326.6161 TF 1.844.842.9188
bairdAE.ca

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APPENDICES

1. INTRODUCTION

Baird AE has been retained to conduct an acoustical study to examine the impacts of noise created by road traffic and surrounding users on the new development in the City of Windsor. This report will recommend mitigation measures based on criteria set by Ministry of Environment and Climate Change (MOECC).

The proposed development is bounded by North Talbot Street to the north, Southwood Lakes Boulevard to the west, residential development to the south, and Extendicare Southwood Lakes and Highway 401 to the east.

The proposed development will include 34 single family dwellings on a 3.0 ha parcel. As per City of Windsor map, the development area zone as residential. Refer to Appendix A for the development location, zone and site layout.

2. NOISE CRITERIA

The MOECC publication NPC-300 “Environmental Noise Guideline Stationery and Transportation Sources – Approval and Planning” was used in this noise study. Based on initial investigation, the primarily noise affecting the development is from North Talbot Street, Highway 401 and Southwood Lakes Blvd. Air and rail traffic noise were not considered, as the development is located outside the zone of influence of local airports and railways.

Due to the acoustical environment typical of a urban setting, it is therefore assumed that the development is located in a “Class 1” area defined by MOECC. The “Class 1” MOECC criteria for noise levels resulting from traffic and stationary sources for this development are summarized in Table 1.

Table 1 – MOECC Noise Level Criteria – (Road)

Location	Time Period	Noise Levels Requirement
Outdoor - Living Areas	07:00 - 23:00	<55dBA – No Control
		55 to 60dBA – Physical Control or Type A Clause
		> 60dBA – Physical Control and Type B Clause
Outside - Living/dining Plane of Window	07:00 - 23:00	<55dBA – No Control
		55 to 65dBA – Forced Air and Type C Clause
		> 65dBA – Air Conditioner, Type D Clause and Building Components
Outside - Living/dining Plane of Window	23:00 to 07:00	<50dBA – No Control
		50 to 60dBA – Forced Air and Type C Clause
		> 60dBA – Air Conditioner, Type D Clause and Building Components

MOECC Guidelines NPC-300 Section C7.1.1 and C7.1.2 – August 2013

Table 2 – MOECC Noise Level Criteria – Indoor (Road)

Type of Space	Type of Space	Sound Exposure Level
Living/Dining Room	0700 - 2300	45 dBA
	2300 - 0700	45 dBA
Sleeping Quarters	0700 - 2300	45 dBA
	2300 - 0700	40 dBA

MOECC Guidelines NPC-300 Section C3.2.3 – August 2013

Table 2 describes indoor sound level limits that are used to calculate the Sound Transmission Class (STC) should outdoor sound level limits be triggered for building components.

Table 3 – MOECC Noise Level Criteria – Stationary (Class 1)

Time Period	Outdoor Points of Reception	Plane of Window
0700 - 1900	50 dBA	50 dBA
1900 - 2300	50 dBA	50 dBA
2300 - 0700	45 dBA	45 dBA

Source: MOECC publication NPC-300 "Sound level limits for Stationary Sources in Class 1 & 2 Areas (Rural)", Tables C-5, C-6; August 2013.

Table 3 provides indoor sound level limits that are used to calculate Sound Transmission Class (STC) when stationary sources are available.

3. NOISE ENVIRONMENT

3.1 *Noise Monitoring*

The on-site noise source measurement was carried out in accordance with the MOECC publication NPC-103 Noise Measurements Procedures. Sound levels measurement were conducted at two locations (M1 and M2 as shown in Figure 1) on Tuesday, March 10, 2021 for 20 minutes. The weather condition consisted of partially cloudy, temperature ranging between 8^{o}C to 7^{o}C, low winds (<35km/h), and relative humidity of 54%. Measurements were taken using a Extech Noise Meter model 407780A noise monitoring device. The sound levels were measured at a height of 1.5m above the ground.

The equivalent sound pressure level (Leq) at two monitoring locations were 58.9*dBA* at M1 and 56.6*dBA* at M2. Monitoring locations are shown in Appendix B, Figure 1 and results are provided in Appendix A.

The noise equipment equipped with 1/1 octave and 1/3 octave band filters. The laboratory Certification of Calibration for the noise meters are provided in Appendix A. Tonal and impulsive noise characteristics were observed during the measurements.

3.2 *Transportation Source*

Annual Average daily Traffic (AADT) on Talbot Street and Southwood Lakes Blvd were obtained from City of Windsor. The traffic counts and other relevant data are included in Appendix A.

Sound level prediction software STAMSON 5.04, based on MOECC ORNAMENT (Ontario Road Noise Analysis Method for Environmental and Transportation, 1989), have been used to generate road's noise level contours. Traffic volumes along with other relevant traffic data utilized by STAMSON are summarized in Table 4.

Table 4 – Background Traffic Volumes (2020)

Item	N Talbot Street	Southwood Lakes Blvd	Highway 401
Annual Average Daily Traffic	8,100 vpd	3,400 vpd	30,000 vpd
% Medium Trucks	2.0%	2.0%	2.0%
% Heavy Trucks	2.0%	2.0%	2.0%
Road Grade	< 2.0%	< 2.0%	< 2.0%
Speed Limit	50 km/h	50 km/h	50 km/h
Day/Night Percent Split	80% / 20%	80% / 20%	80% / 20%

Using the above data in Stamson software, the daytime and nighttime free field limits were established. The noise level limits are shown in Figure 1 – Noise Information Plan (Appendix B) and detailed free field results are provided in Appendix C.

Based on the results, the traffic noise from N Talbot Street and Southwood Lakes Blvd will impact on the proposed development; as some of the proposed buildings are within 60dBA daytime noise limits which will trigger for noise attenuation wall. However, mitigation measure such warning clause such as air conditioning and forced air heating are required. No traffic impact was observed from Highway 401 traffic.

Further, an analysis was conducted to compare predicted noise level with monitored noise level (see Section 3.1 for monitoring reading). Comparison results are described in table below and details are provided in Appendix A and B.

Table 5 – Noise Results Comparison

Receiver Location	Monitoring Level Daytime (dBA)	Stamson Traffic Predicted Level (dBA)	
		Daytime	Nightime
Monitoring 1	58.9	57.5	54.7
Monitoring 2	56.6	52.9	50.3

Based on Table 5, the results from Stamson shows that the predicted noise level has difference of 1dBA daytime at monitoring 1 and 4dBA daytime at monitoring location 2. The difference of 4dBA considered minimal. Hence, monitored noise level is worst condition therefore used to determine receiver's noise levels (see Section 3.2.2).

3.2.1 Receiver Locations

The sample receiver locations were identified and are located at the worst-case locations (most exposed) for both day and night time noise. For daytime, receivers are placed 1.5m above ground and for night time receivers are placed 4.5m above ground. living room and bedroom windows noise receiver are placed 4.5m above the ground.

For indoor living areas, the plane of window (POW) will be used to represent the worst case for both daytime and night time receivers.

The term “outdoor living area” (OLA) is used to reference to an outdoor patio, a backyard, a terrace, balconies or other areas where passive recreation is expected to occur. A review of the site plan indicates that the proposed dwellings within the development will have backyards. Receivers are located 3m away from back of the building façade.

Table 6 identifies the various receiver heights chosen as the “worst case” locations within the proposed development. These locations are shown in Appendix B, Figure 1.

Table 6 – Receiver Locations

Receiver Location	Height of Receivers		Represents
	Daytime	Nighttime /Bedroom	
Receiver A	1.5m	4.5m	Block 1 - South facade
Receiver B	1.5m	4.5m	Block 22 - South facade
Receiver C	1.5m	4.5m	Block 10 - Northeast facade
Receiver D	1.5m	4.5m	Block 7 - Northwest facade
Receiver E	1.5m	4.5m	Block 4 - Northwest facade

3.2.2 Noise Level Results

The noise propagation analysis was completed using noise modelling program “iNoise”, produced by DGMR Software to match the monitoring noise levels at monitoring locations M1 and M2 from surrounding sources. The iNoise program follows International Standards Organization (ISO) standards 9613 parts 1 and 2. The model is capable of incorporating various site features such as elevations, berms, absorptive grounds and barrier to

accurately predict noise levels at specific receptors, pertaining to noise emission from sources. The model is considered conservative since as it represents atmospheric condition that promote propagation of sound from the source to the receiver.

The following assumptions were used in the modelling:

Reflections: A building reflection of 0.8 was assumed to be representative of the brick façade present for the surrounding building including the proposed building.

Ground Absorption & Topography: A ground absorption coefficient of 0 was used to represent the most reflective (i.e. pave surface) The area surrounding the monitoring location is characterized by generally flat. As such, topography was not incorporated int eh noise modelling.

All transportation sources noise levels are assumed (as describe in Section 3.2) to approximate match the monitored noise level. Once noise level matches the monitoring location, the noise level at each subject receptor location (see Table 6) were obtained.

Overall unattenuated daytime and nighttime sound levels at the receiver locations are shown in Figure 3 and are describe in Table 7.

Table 7 – Post Development Predicted Noise Levels

Location	Noise Level (dBA)			MOECC Criteria (dBA)	Meets MOECC	
	OLA	Ground Floor /Living Room	2nd Storey (Bedroom Window)		OLA	Indoor
Receiver A Daytime Nighttime	55 --	55 --	-- 52	50 45	Yes	No No
Receiver B Daytime Nighttime	55 --	55 --	-- 51	50 45	Yes	No No
Receiver C Daytime Nighttime	53 --	53 --	-- 49	50 45	Yes	No No
Receiver D Daytime Nighttime	61 --	61 --	-- 55	50 45	No	No No

Receiver E Daytime Nighttime	60 --	60 --	-- 57	50 45	No	No No

Based on predicted sound levels as shown in Figure 3 (Appendix D), the outdoor living area noise level is greater than 60dBA daytime for Blocks 1-5, Block 7, Block 12, and Block 13-16. Therefore, mitigation measures are required such as warning clause and noise barriers is required to meet MOECC Limit of 50dBA. Mitigation measure are provided in Section 4.

For indoor living and bedroom areas, the daytime and nighttime noise levels are above 50 dBA and 45 dBA for all receiver locations therefore, assessment of glazing requirements is necessary to meet indoor sound level for buildings at all receiver locations.

3.2.3 Warning Clause

The Type C warning clause is required to be included in all agreements of purchase and sale or lease and all rental agreements for the residential units because noise level exceed 55dBA during daytime, or 50dBA during nighttime. This include:

- Block 4
- Block 5 to 6

Type ‘C’

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

Due to increase in noise level, a warning clause and noise wall is required for the Outdoor Living Area. A Type B warning clause related to the increase sound levels for the outdoor amenity area is required for Block 4, and Block 5 to 6.

Type ‘B’

"Purchasers/tenants are advised that despite the inclusion of noise control features in the development and within the building units, sound levels due to increasing road traffic may on occasions interfere with some activities of the dwelling occupants as

the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment."

3.3 *Stationary Sources*

A review of all surrounding users was conducted and one property's HVAC units were identified as being potential significant noise sources, namely:

- Extendicare Southwood Lakes – to east of subject property: this development provides care to elderly peoples that produces construction products. Noise on this property includes loading and unloading of items. The rooftop HVAC units.

Based on site visit, there's no sound observed from the Extendicare facility. Hence, it is concluded that the dominated noise is surrounding road noise.

4. ATTENUATED NOISE MEASURMENT

Acoustical Fence

Noise barriers are proposed within the development. Following is the description and location of fence and Appendix B, Figure 4 which illustrates the layout, height and length of the recommended acoustical barrier

- A noise barrier of 1.5m high is proposed along the property line of Block 4, and Block 5 to 6.

The acoustical barriers will have surface density of no less than 20 kg/m^2. With the recommended noise barrier in place, the noise level at the outdoor living area and plane of windows is significantly reduced and meet the MOECC daytime criteria for stationary sources. Results are provided in Table 8 and Figure 3, Appendix D.

Table 8 – Post Development Predicted Noise Levels - Attenuated

Location	Noise Level (dBA)			MOECC Criteria (dBA)	Meets MOECC	
	OLA	Ground Floor /Living Room	2nd Storey (Bedroom Window)		OLA	Indoor
Receiver A Daytime Nighttime	55 --	55 --	-- 52	50 45	Yes	No No
Receiver B Daytime Nighttime	54 --	54 --	-- 51	50 45	Yes	No No
Receiver C Daytime Nighttime	53 --	52 --	-- 49	50 45	Yes	No No
Receiver D Daytime Nighttime	52 --	52 --	-- 55	50 45	Yes	No No
Receiver E Daytime Nighttime	52 --	52 --	-- 57	50 45	Yes	No No

Based on above results, the noise level meets the outdoor living area criteria of MOECC. However, the noise level at receiver locations A to E exceeds MOECC indoor criteria, hence, building components are required.

Building Component

The appropriate building components were selected based on the Acoustic Insulation Factor (AIF) which is related to the difference in indoor and outdoor noise level. The AIF is calculated as follows:

AIF = Leq (outdoor façade) – Leq (indoor) + 10 log C + 2

C = number of building components forming room envelope

To calculate the required building components, the dimensions of the rooms and their wall/window sizes must be known. At this time, floor area, room dimensions and floor height are unknown. Assuming 25% window-door/floor ratios, the required components were estimated at the building facades.

The following table provides AIF and Sound Transmission Class (STC) requirements for sound levels for both daytime and nighttime noises.

Table 9 – Typical AIF Values for Building Component

Daytime Noise (dBA)	Night time Noise (dBA)	AIF Noise Limit	Living/Dining Window/Door Treatment	Bedroom Window Treatment
55 or less	50 or less	17 or less	None (OBC)	None (OBC)
56 - 65	51 - 60	18 - 27	None (OBC)	STC 23 - 32
66 - 68	61 - 63	28 – 30	None (OBC)	STC 33 - 34
69 - 70	64 - 65	31 – 32	STC 31 - 32	STC 36 - 37
71 - 72	66 - 67	33 – 34	STC 33 - 34	STC 38 - 39
73 - 78	68 - 73	35 – 40	STC 35 - 40	STC 40 - 45
79	74	41	STC 41	STC 46

Source: “Road and Rail Noise: Effects on Housing”, NHA 5156 81/10, 1981

Based on the assumed 25% window-door/floor ratios, the windows and door component requirements were estimated from the attenuated noise level illustrated in Appendix B, Figure 4. Once the detailed building plans are finalized, it is recommended that an acoustical consultant review the building components to ensure that noise levels satisfy the requirements.

5. RECOMMENDATIONS

As demonstrated in this report, mitigation measures are required to bring residential units within the development into compliance with MOECC criteria. With the inclusion of these measures, MOECC noise criteria will be satisfied.

Recommendation #1

Due to the exceedance of the MOECC criteria for daytime and night time acoustical levels from N Talbot Street and Southwood Lake Boulevard, the dwellings shall include warning clauses as describe in Section 3.2.3.

Recommendation #2

Due to the exceedance of the MOECC criteria for daytime and night time acoustical levels from transportation source and surrounding industries, a noise barrier with minimum surface density of 20 kg/m^2 shall be installed along the property line of certain dwellings as described in Section 3.2.3. The layout of the proposed noise barrier is shown in Appendix Þ Figure 4.

Recommendation #3 (Building Components)

Due to exposure to stationary noise, some units require special building components for areas of sensitive use (i.e. bedroom, living room, dining room, kitchen, etc.) and the following is required:

Window Requirements:

> All windows leading to sensitive living areas are to have a minimum sound transmission class (STC) as per Table 9 in order to meet the MOECC indoor noise level criteria.

Door Requirements:

> All doors leading to sensitive living areas are to have a minimum sound transmission class (STC) as per Figure 4 in order to meet the MOECC indoor noise level criteria.

Recommendation #4 (All units within the development)

Prior to the issuance of building permits it is recommended that an acoustical consultant review the sound transmission class (STC) for the proposed development's walls, windows and doors to ensure they conform to the recommendations outlined in this report.

6. SUMMARY

We conclude that this development can, with the implementation of the above-described mitigation measures, be designed to address impacts from the surrounding noise sources.

If you have any questions or wish to discuss our findings, please advise us.

Yours truly,

BAIRD AE INC.
27 PRINCESS STREET, UNIT 102
LEAMINGTON, ONTARIO N8H 2X8

Shurjeel Tunio, P.Eng.
Senior Project Manager
Baird AE

Appendix A

NOISE INFORMATION PLAN
AND
BACKGROUND INFORMATION

INVERTS INVERTS ARE DERIVED FROM CITY OF WINDSOR SEWER ATLAS (PLATE M15) AND SHOULD BE VERIFIED BEFORE CONSTRUCTION.

CAUTION
UNDERGROUND UTILITIES AND SERVICES SHOWN ON THIS PLAN ARE APPROXIMATE AND MUST BE VERIFIED BEFORE CONSTRUCTION

REAL NORTH | PROJECT NORTH

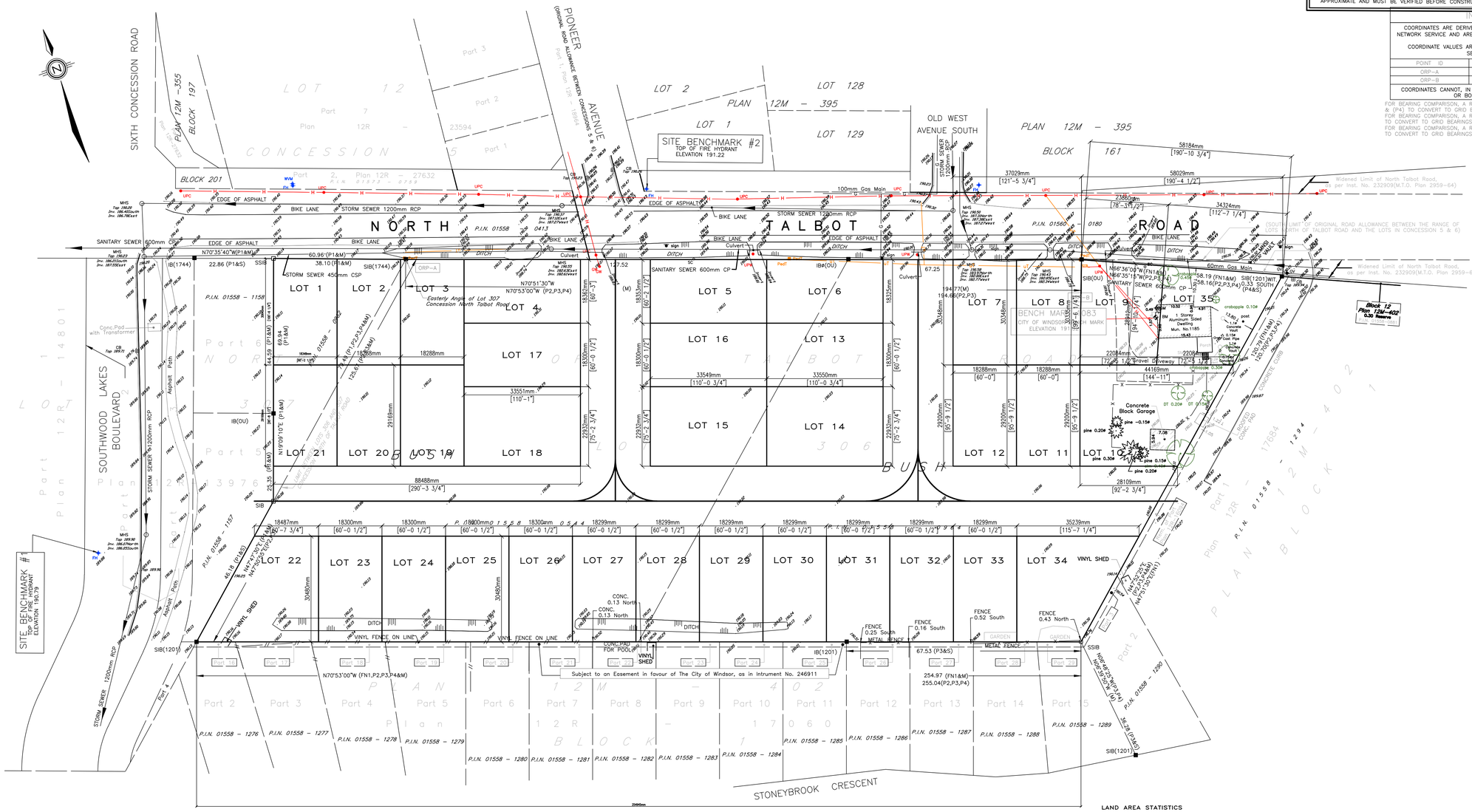
INTEGRATION DATA

COORDINATES ARE DERIVED FROM GRID OBSERVATIONS USING THE CAN-NET NETWORK SERVICE AND ARE REFERRED TO UTM ZONE 17 (81° WEST LONGITUDE) NAD83 (CSRS) (2010.0).
COORDINATE VALUES ARE TO AN URBAN ACCURACY IN ACCORDANCE WITH SECTION 14(2) O.REG 216/10

POINT ID	NORTHING	EASTING
ORP-A	N4678646.40	E336574.75
ORP-B	N4678582.53	E336758.76

COORDINATES CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

FOR BEARING COMPARISON, A ROTATION 01°00'25 CLOCKWISE WAS APPLIED TO (P2),(P3) & (P4) TO CONVERT TO GRID BEARINGS.
FOR BEARING COMPARISON, A ROTATION 00°59'20" CLOCKWISE WAS APPLIED TO (P1) TO CONVERT TO GRID BEARINGS.
FOR BEARING COMPARISON, A ROTATION 01°02'30" CLOCKWISE WAS APPLIED TO (FN1) TO CONVERT TO GRID BEARINGS.



LAND AREA STATISTICS

TOTAL EXISTING LOT 1095 + 1185 NORTH TALBOT ROAD = 315,514.32 S.F. = 29,312.24 S.M. = 7.243 ACRE
10.4 RESIDENTIAL DISTRICT 1.4 (RD1.4)

10.4.1 PERMITTED USES
EXISTING DUPLEX DWELLING
EXISTING SEMI–DETACHED DWELLING
ONE SINGLE UNIT DWELLING
ANY USE ACCESSORY TO THE PRECEDING USES

10.4.5 PROVISIONS

.1	LOT WIDTH	– MINIMUM	18 M
.2	LOT AREA	– MINIMUM	270.0 S.M.
.3	LOT COVERAGE	– MAXIMUM	45.0 %
.4	MAIN BUILDING HEIGHT	– MAXIMUM	10.0 M
.5	FRONT YARD DEPTH	– MINIMUM	6.0 M
.6	REAR YARD DEPTH	– MINIMUM	7.5 M
.7	SIDE YARD WIDTH	– MINIMUM	1.2 M

Part 1

LEGEND

MHH	DENOTES HYDRO MANHOLE	FH	DENOTES FIRE HYDRANT
MHS	DENOTES SEWER MANHOLE	WM	DENOTES WATER METER
MHT	DENOTES TELEPHONE MANHOLE	WVS	DENOTES WATER VALVE (Service)
MHTR	DENOTES TRAFFIC MANHOLE	WVM	DENOTES WATER VALVE (Main)
MHW	DENOTES WATER MANHOLE	GM	DENOTES GAS METER
CB	DENOTES CATCH BASIN	GV	DENOTES GAS VALVE
DCB	DENOTES DOUBLE CATCH BASIN	HM	DENOTES HYDRO METER
LSc	DENOTES LIGHT STANDARD CONCRETE	PedT	DENOTES TELEPHONE PEDESTAL
LSs	DENOTES LIGHT STANDARD STEEL	PedCTV	DENOTES CABLE TV PEDESTAL
LSw	DENOTES LIGHT STANDARD WOOD	TRs	DENOTES TRAFFIC SIGN
UPc	DENOTES UTILITY POLE CONCRETE	TRsg	DENOTES TRAFFIC SIGNAL
UPs	DENOTES UTILITY POLE STEEL	TRsb	DENOTES TRAFFIC SIGNAL BOX
UPw	DENOTES UTILITY POLE WOOD	TH	DENOTES TESTHOLE
GP	DENOTES GUY POLE	BM	DENOTES BENCH MARK
GW	DENOTES GUY WIRE	HCP	DENOTES HORIZONTAL CONTROL POINT
Bol	DENOTES BOLLARD	VCP	DENOTES VERTICAL CONTROL POINT
PM	DENOTES PARKING METER		DENOTES SHRUB
TOC	DENOTES TOP OF CURB	SC	DENOTES SEWER CLEANOUT
BOC	DENOTES BOTTOM OF CURB	INV	DENOTES INVERT

LEGEND

DECIDUOUS AND CONIFEROUS TREES ARE DENOTED dT AND cT RESPECTIVELY. A PREFIX TO THE DESCRIPTION DESIGNATES THE NUMBER OF TREE TRUNKS WHEN TREES ARE CLUMPED TOGETHER AND A SUFFIX DENOTES THE TREE DIAMETER OR (NTS) NOT TO SCALE.

C (pipe size) C	DENOTES OVERHEAD CABLE TV LINE
G (pipe size) G	DENOTES GAS LINE
H (pipe size) H	DENOTES OVERHEAD HYDRO LINE
CS (pipe size) CS	DENOTES COMBINED SEWER
SA (pipe size) SA	DENOTES SANITARY SEWER
ST (pipe size) ST	DENOTES STORM SEWER
T (pipe size) T	DENOTES OVERHEAD TELEPHONE LINE
W (pipe size) W	DENOTES WATER LINE

UNDERGROUND CABLE, HYDRO OR TELEPHONE LINES ARE PREFIXED WITH THE LETTER "u" (CABLE = uC HYDRO = uH TELEPHONE = uT)

ELEVATIONS

ELEVATIONS SHOWN ON THIS PLAN ARE IN METRES CANADIAN GEODETIC VERTICAL DATUM(1928)

BENCH MARK
CITY OF WINDSOR BENCH MARK 1083 ELEVATION 191.32
M.B. 1185 NORTH OF TALBOT ROAD: THE PLATE IS LOCATED ON THE WEST WALL OF THE CHIMNEY, 0.09 METER FROM THE SOUTH WALL OF THE CHIMNEY AND 0.43 METER ABOVE GRADE.

SITE BENCH MARK #1 ELEVATION 190.79
TOP OF FIRE HYDRANT AT SOUTHWEST CORNER OF PARCEL.

SITE BENCH MARK #2 ELEVATION 191.22
TOP OF FIRE HYDRANT AT NORTHEAST CORNER OF NORTH TALBOT ROAD AND PIONEER AVENUE..

AREA
2.932 Hectares

LEGEND

■	DENOTES SURVEY MONUMENT FOUND
□	DENOTES SURVEY MONUMENT SET
SIB	DENOTES STANDARD IRON BAR
SSIB	DENOTES SHORT STANDARD IRON BAR
IB	DENOTES IRON BAR
PB	DENOTES PLASTIC BAR
CP	DENOTES STEEL PIN
CC	DENOTES CUT–CROSS
WIT	DENOTES WITNESS
M	DENOTES MEASURED
⊥	DENOTES PERPENDICULAR
S	DENOTES SET
ORP	DENOTES OBSERVED REFERENCE POINT
	ALL SET SSIB AND PB MONUMENTS WERE USED DUE TO LACK OF OVERBURDEN AND/OR PROXIMITY OF UNDERGROUND UTILITIES IN ACCORDANCE WITH SECTION 11 (4) OF O.REG. 525/91.
(OU)	DENOTES ORIGIN UNKNOWN
(P1)	DENOTES PLAN 12R–13976
(P2)	DENOTES PLAN 12M–402
(P3)	DENOTES PLAN 12R–17060
(P4)	DENOTES PLAN 12R–17684
(1746)	DENOTES VERHAEGEN LAND SURVEYORS,OLS
(1201)	DENOTES CLARKE SURVEYORS INC., O.L.S.

PROPOSED SITE PLAN –

SCALE: 1:600

NOTE:
THIS DRAWING IS BASED ON DRAWING AS PROVIDED BY THE OWNER;
THIS DRAWING IS FOR PRELIMINARY REVIEW AS PART OF PRE–CONSULTATION ONLY FOR SITE PLAN REVIEW;

CHINTAN VIRANI ARCHITECT INC.
CHINTAN J. VIRANI
B. ARCH. | OAA, MRAIC, | AIA | COAI
9898 HOLLY CRESCENT,
WINDSOR, ONTARIO,
CANADA N8R 1Z3
PHONE: (519)979–9017
CELL: (519) 567–1800
FAX: (519) 979–4909
EMAIL:chintan@chintan.ca
WWW.CHINTAN.CA

TOSIN BELLO | PRINCIPAL
55 Leborio Ave, Unit C-115
Toronto, Ontario M1L 4T7
DIRECT: 647-779-1333
REAL ESTATE OFFICE: 416-YOUR-KEY (968-7539)
EMAIL: BELLOCORPDevelopments@gmail.com
WEBSITE: www.BELLOCORP.com

A PROJECT BY
MR. TOSIN BELLO
BELLOCORP DEVELOPMENTS INC.

NO.	ISSUED FOR	NO.
10.		
09.		
08.	REVISED TO MATCH SURVEY	MAR. 01/2021
07.	REVISED TO MATCH SURVEY	FEB. 26/2021
06.	REVISED AREA STATISTICS AS CITY'S COMMENT	DEC. 14/2020
05.	REVISED AS TOSIN'S COMMENT EASEMENT ADDED.	DEC. 01/2020
04.	REVISED AS DILLON'S COMMENT	NOV. 30/2020
03.	REVISED AS CITY COMMENT	NOV. 20/2020
02.	REVISED AS DILLON PLANNER 4.5 M COMMENT	NOV. 09/2020
01.	REVISED AS DILLON PLANNER & OWNER'S COMMENT	AUG. 09/2020

PROJECT NAME AND LOCATION

PROPOSED MIXED USE COMMERCIAL & RESIDENTIAL 4 STOREY BUILDING

1090 NORTH TALBOT ROAD,
WINDSOR, ON – N9G 3A3

DRAWING TITLE

PROPOSED SITE PLAN

OPTION–1

NOTE:
– DO NOT SCALE DRAWINGS.
– ALL DIMENSIONS TO BE CHECKED AND VERIFIED ON THE JOB SITE.
– ANY AND ALL DISCREPANCIES TO BE REPORTED TO THE ARCHITECT.
– ALL DRAWINGS REMAIN THE PROPERTY OF THE ARCHITECT.

PROJECT NO.	2026
DATE	MAY 2020
DRAWN BY	KV/VP
CHECKED BY	CJV
DRAWING NO.	SP-2

A. DETAIL NO.
B. LOCATION SHEET
C. DETAILED ON

REC B - DATA

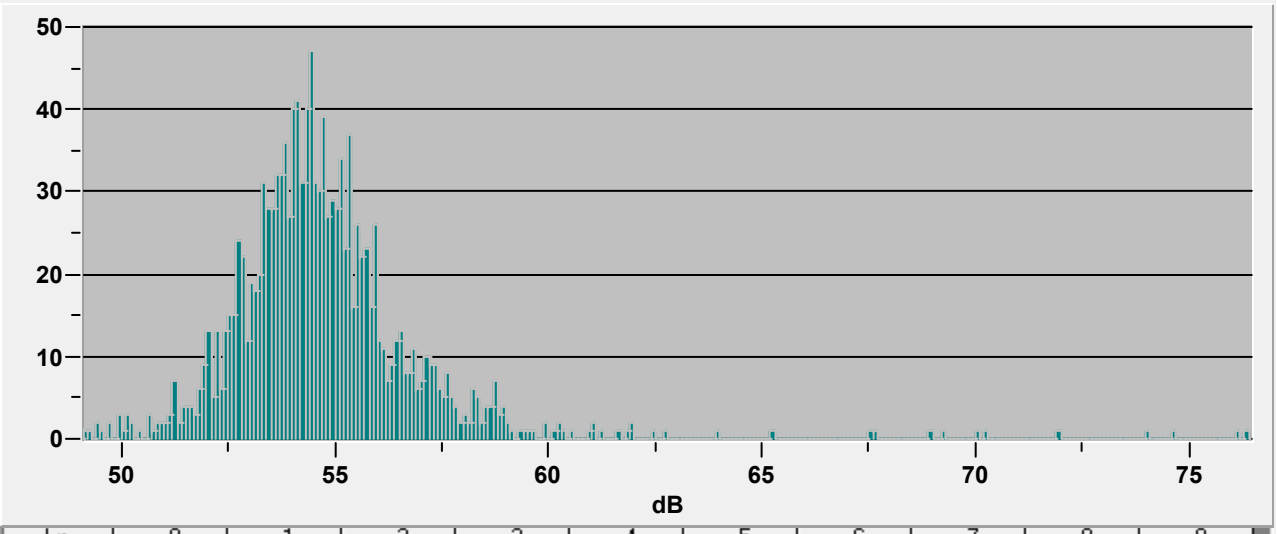
- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 76.7 - 2021/03/10 16:16:30
- Level Range : 40-100
- SEL : 87.8
- Leq : 56.6
-

No.s	Date Time	(dB)				
1	2021-03-10 16:10:11	55.0	54.5	53.3	53.6	56.7
6	2021-03-10 16:10:16	61.2	58.6	57.2	57.6	57.6
11	2021-03-10 16:10:21	58.4	58.6	61.9	62.4	61.8
16	2021-03-10 16:10:26	61.9	58.7	56.7	54.8	57.1
21	2021-03-10 16:10:31	57.3	55.6	54.2	53.9	53.3
26	2021-03-10 16:10:36	53.1	53.3	53.4	52.7	52.0
31	2021-03-10 16:10:41	52.4	52.6	52.3	52.5	52.1
36	2021-03-10 16:10:46	52.0	51.6	51.9	53.1	54.4
41	2021-03-10 16:10:51	54.7	54.3	54.9	54.5	53.9
46	2021-03-10 16:10:56	53.8	54.0	54.0	54.1	54.5
51	2021-03-10 16:11:01	54.1	53.0	52.1	51.7	51.9
56	2021-03-10 16:11:06	51.9	53.0	55.3	54.0	53.4
61	2021-03-10 16:11:11	57.5	58.3	63.9	61.6	58.7
66	2021-03-10 16:11:16	59.6	57.3	55.3	53.9	53.2
71	2021-03-10 16:11:21	52.6	52.7	52.7	52.9	53.2
76	2021-03-10 16:11:26	53.5	53.2	52.6	53.6	53.0
81	2021-03-10 16:11:31	53.0	53.5	53.6	54.6	55.5
86	2021-03-10 16:11:36	54.8	53.3	53.2	53.4	53.2
91	2021-03-10 16:11:41	52.4	52.7	52.6	52.5	54.1
96	2021-03-10 16:11:46	55.4	55.2	54.5	53.7	53.3
101	2021-03-10 16:11:51	52.8	52.5	53.1	54.3	54.7
106	2021-03-10 16:11:56	54.9	54.7	54.1	53.4	52.6
111	2021-03-10 16:12:01	52.1	52.4	52.2	52.5	52.8
116	2021-03-10 16:12:06	53.0	53.7	53.0	52.0	51.3
121	2021-03-10 16:12:11	51.1	50.9	51.0	51.5	52.8
126	2021-03-10 16:12:16	53.2	53.9	54.6	55.1	55.6
131	2021-03-10 16:12:21	56.2	55.6	54.4	54.1	53.8
136	2021-03-10 16:12:26	54.0	54.2	53.7	53.7	53.6
141	2021-03-10 16:12:31	53.5	53.3	53.5	53.1	53.0
146	2021-03-10 16:12:36	52.6	52.7	52.5	53.3	53.4
151	2021-03-10 16:12:41	53.6	53.5	53.7	54.4	54.0
156	2021-03-10 16:12:46	54.3	53.9	54.4	54.3	54.0
161	2021-03-10 16:12:51	53.6	54.2	54.7	54.9	53.9
166	2021-03-10 16:12:56	53.7	53.7	54.5	54.7	54.9
171	2021-03-10 16:13:01	54.6	54.3	55.6	55.7	56.3
176	2021-03-10 16:13:06	57.4	58.3	58.9	59.1	58.7
181	2021-03-10 16:13:11	58.7	59.0	58.3	57.5	56.9
186	2021-03-10 16:13:16	56.2	55.5	54.6	53.9	54.1
191	2021-03-10 16:13:21	55.4	56.2	55.3	54.7	56.5
196	2021-03-10 16:13:26	55.3	55.3	54.0	53.7	54.2
201	2021-03-10 16:13:31	57.6	57.1	55.5	55.7	56.4
206	2021-03-10 16:13:36	55.0	54.0	55.1	55.7	55.4
211	2021-03-10 16:13:41	55.3	55.3	57.4	58.2	58.2
216	2021-03-10 16:13:46	58.3	60.1	59.9	59.5	60.3
221	2021-03-10 16:13:51	58.5	58.9	59.0	58.4	58.1
226	2021-03-10 16:13:56	58.6	58.8	58.5	58.2	58.9
231	2021-03-10 16:14:01	58.5	58.2	57.1	56.8	57.0
236	2021-03-10 16:14:06	57.0	56.3	55.0	55.9	54.9
241	2021-03-10 16:14:11	54.8	55.1	54.4	54.3	54.3
246	2021-03-10 16:14:16	54.4	54.3	56.4	55.3	54.4
251	2021-03-10 16:14:21	54.5	54.5	54.6	55.0	54.8
256	2021-03-10 16:14:26	54.4	54.3	56.8	55.5	54.7
261	2021-03-10 16:14:31	54.4	53.9	53.5	53.5	53.8
266	2021-03-10 16:14:36	53.4	53.8	54.4	54.2	54.7
271	2021-03-10 16:14:41	54.5	54.4	55.6	55.7	55.7
276	2021-03-10 16:14:46	55.4	55.2	55.5	55.3	55.9
281	2021-03-10 16:14:51	56.6	57.0	57.2	56.8	56.7
286	2021-03-10 16:14:56	57.2	56.8	56.0	55.1	54.2
291	2021-03-10 16:15:01	53.6	53.4	52.8	52.3	52.0
296	2021-03-10 16:15:06	52.2	53.2	53.8	54.4	55.4
301	2021-03-10 16:15:11	56.1	57.0	58.5	58.9	58.8
306	2021-03-10 16:15:16	60.2	60.9	59.3	57.3	55.5
311	2021-03-10 16:15:21	54.1	52.9	52.0	51.2	51.2
316	2021-03-10 16:15:26	51.5	51.7	52.0	52.1	51.9
321	2021-03-10 16:15:31	51.9	51.9	51.7	51.9	52.0
326	2021-03-10 16:15:36	52.4	52.4	52.4	52.7	52.7
331	2021-03-10 16:15:41	52.6	52.0	51.6	51.2	52.2
336	2021-03-10 16:15:46	52.7	51.9	51.5	51.5	51.1
341	2021-03-10 16:15:51	51.4	51.4	51.6	51.6	51.2
346	2021-03-10 16:15:56	50.7	50.8	51.4	51.8	51.3
351	2021-03-10 16:16:01	51.2	52.0	52.3	52.8	52.5
356	2021-03-10 16:16:06	51.8	51.8	52.0	52.2	52.6
361	2021-03-10 16:16:11	53.0	54.0	55.6	58.7	58.3
366	2021-03-10 16:16:16	57.0	55.2	54.0	53.4	54.4
371	2021-03-10 16:16:21	55.1	54.4	54.8	59.4	61.0
376	2021-03-10 16:16:26	67.5	70.2	74.0	76.1	76.3
381	2021-03-10 16:16:31	74.6	71.9	70.0	69.2	68.9
386	2021-03-10 16:16:36	67.6	65.2	62.7	61.0	60.5
391	2021-03-10 16:16:41	59.9	60.2	58.7	57.2	56.9
396	2021-03-10 16:16:46	57.6	57.1	56.8	56.9	55.8
401	2021-03-10 16:16:51	55.2	54.6	55.0	55.3	55.7
406	2021-03-10 16:16:56	55.7	56.1	56.1	54.8	54.5
411	2021-03-10 16:17:01	55.0	56.9	55.7	54.7	54.0
416	2021-03-10 16:17:06	53.7	53.3	53.5	54.0	55.4

421	2021-03-10	16:17:11	55.2	56.3	55.8	55.9	56.5
426	2021-03-10	16:17:16	56.7	56.4	56.6	56.5	56.0
431	2021-03-10	16:17:21	55.5	55.1	54.6	53.8	53.5
436	2021-03-10	16:17:26	52.7	52.5	53.0	53.6	53.2
441	2021-03-10	16:17:31	53.4	53.0	52.5	53.4	53.2
446	2021-03-10	16:17:36	53.2	52.8	52.9	53.5	53.8
451	2021-03-10	16:17:41	53.7	53.5	54.6	54.5	54.3
456	2021-03-10	16:17:46	54.7	55.3	55.8	55.9	57.2
461	2021-03-10	16:17:51	55.8	55.9	55.9	56.0	56.0
466	2021-03-10	16:17:56	55.7	55.3	55.1	55.2	55.3
471	2021-03-10	16:18:01	55.3	54.5	54.5	54.0	52.8
476	2021-03-10	16:18:06	52.9	52.6	52.7	53.0	52.3
481	2021-03-10	16:18:11	52.3	51.8	52.0	52.8	53.7
486	2021-03-10	16:18:16	54.5	54.7	55.2	55.9	55.6
491	2021-03-10	16:18:21	54.8	54.4	53.7	53.4	53.3
496	2021-03-10	16:18:26	53.3	53.2	53.1	53.1	54.8
501	2021-03-10	16:18:31	55.6	55.2	56.3	57.1	57.6
506	2021-03-10	16:18:36	57.0	55.6	54.7	54.1	53.1
511	2021-03-10	16:18:41	52.7	52.6	52.5	52.3	52.2
516	2021-03-10	16:18:46	52.1	51.8	52.0	52.0	52.5
521	2021-03-10	16:18:51	52.8	53.3	52.7	52.8	53.2
526	2021-03-10	16:18:56	53.8	55.2	56.4	57.7	57.3
531	2021-03-10	16:19:01	56.7	55.6	54.4	54.9	55.8
536	2021-03-10	16:19:06	55.8	56.4	55.5	55.5	55.5
541	2021-03-10	16:19:11	55.9	55.6	55.7	55.7	55.2
546	2021-03-10	16:19:16	54.8	54.6	54.6	54.0	53.8
551	2021-03-10	16:19:21	53.6	53.5	54.1	54.4	54.0
556	2021-03-10	16:19:26	53.8	53.8	53.8	53.3	53.1
561	2021-03-10	16:19:31	52.7	52.8	53.1	53.9	53.3
566	2021-03-10	16:19:36	53.4	53.4	52.8	52.4	52.2
571	2021-03-10	16:19:41	52.6	52.7	53.4	53.2	53.4
576	2021-03-10	16:19:46	53.5	55.0	55.8	55.8	55.9
581	2021-03-10	16:19:51	55.6	55.2	55.3	55.4	54.7
586	2021-03-10	16:19:56	53.5	52.9	53.3	52.8	53.0
591	2021-03-10	16:20:01	52.5	52.2	52.4	52.7	52.9
596	2021-03-10	16:20:06	53.0	52.7	53.4	53.1	52.9
601	2021-03-10	16:20:11	54.3	53.8	54.1	54.1	54.1
606	2021-03-10	16:20:16	53.8	53.8	53.6	53.6	53.8
611	2021-03-10	16:20:21	53.3	52.8	53.5	53.4	52.9
616	2021-03-10	16:20:26	53.4	53.3	53.7	53.6	53.5
621	2021-03-10	16:20:31	53.8	54.1	54.1	54.0	54.3
626	2021-03-10	16:20:36	54.5	54.0	54.1	53.8	54.3
631	2021-03-10	16:20:41	55.2	56.4	57.6	58.6	58.2
636	2021-03-10	16:20:46	57.8	57.5	56.5	55.3	55.0
641	2021-03-10	16:20:51	54.6	54.1	53.9	53.5	54.1
646	2021-03-10	16:20:56	54.3	54.7	55.6	55.3	55.7
651	2021-03-10	16:21:01	55.5	55.6	55.6	55.5	55.4
656	2021-03-10	16:21:06	55.0	54.6	54.3	54.7	54.3
661	2021-03-10	16:21:11	54.9	54.3	54.0	53.9	54.0
666	2021-03-10	16:21:16	54.5	54.6	55.1	55.0	54.4
671	2021-03-10	16:21:21	53.9	53.7	53.8	53.7	54.0
676	2021-03-10	16:21:26	53.3	52.7	52.4	53.0	52.7
681	2021-03-10	16:21:31	52.7	52.5	53.2	53.6	53.7
686	2021-03-10	16:21:36	53.7	55.5	55.2	54.3	54.2
691	2021-03-10	16:21:41	54.1	53.7	53.5	52.8	52.2
696	2021-03-10	16:21:46	52.2	52.5	52.5	53.3	54.3
701	2021-03-10	16:21:51	55.0	54.9	54.3	53.8	53.4
706	2021-03-10	16:21:56	53.4	53.4	53.6	53.3	53.1
711	2021-03-10	16:22:01	53.2	53.4	53.6	55.1	55.3
716	2021-03-10	16:22:06	56.5	56.1	55.7	55.9	56.0
721	2021-03-10	16:22:11	55.8	55.7	57.2	57.8	57.8
726	2021-03-10	16:22:16	56.7	55.9	55.2	54.6	54.8
731	2021-03-10	16:22:21	54.9	54.1	54.1	53.9	54.6
736	2021-03-10	16:22:26	54.4	54.0	54.1	54.0	54.9
741	2021-03-10	16:22:31	54.7	54.0	54.3	55.0	55.2
746	2021-03-10	16:22:36	54.9	54.2	54.2	54.8	54.7
751	2021-03-10	16:22:41	54.2	54.0	54.3	54.0	54.1
756	2021-03-10	16:22:46	54.0	53.4	53.6	54.8	55.8
761	2021-03-10	16:22:51	55.3	55.3	55.1	56.1	56.5
766	2021-03-10	16:22:56	56.5	56.7	58.1	57.9	57.4
771	2021-03-10	16:23:01	56.8	55.7	54.9	54.7	55.1
776	2021-03-10	16:23:06	55.4	54.3	54.1	54.7	55.9
781	2021-03-10	16:23:11	56.0	55.9	55.7	55.2	54.6
786	2021-03-10	16:23:16	54.6	55.8	55.7	55.6	55.3
791	2021-03-10	16:23:21	55.1	54.4	54.8	54.9	55.5
796	2021-03-10	16:23:26	54.8	53.9	53.9	53.9	54.3
801	2021-03-10	16:23:31	55.1	54.3	53.5	53.0	52.7
806	2021-03-10	16:23:36	52.9	53.6	53.6	53.6	53.5
811	2021-03-10	16:23:41	54.0	53.6	53.7	53.1	53.8
816	2021-03-10	16:23:46	53.3	52.6	52.4	53.6	53.7
821	2021-03-10	16:23:51	54.0	54.8	56.0	55.5	55.6
826	2021-03-10	16:23:56	54.8	54.7	54.2	54.4	53.7
831	2021-03-10	16:24:01	53.8	53.6	55.7	55.2	53.9
836	2021-03-10	16:24:06	53.8	54.6	55.5	57.3	57.9
841	2021-03-10	16:24:11	57.7	57.1	57.4	56.9	55.9
846	2021-03-10	16:24:16	54.5	53.8	56.5	55.9	56.1
851	2021-03-10	16:24:21	54.9	54.3	53.8	53.8	53.6
856	2021-03-10	16:24:26	53.9	54.2	54.1	56.6	55.3
861	2021-03-10	16:24:31	55.1	54.2	53.9	53.6	53.7
866	2021-03-10	16:24:36	53.5	53.8	54.0	54.2	54.1
871	2021-03-10	16:24:41	54.1	54.5	54.9	54.5	55.0
876	2021-03-10	16:24:46	55.0	54.7	54.5	54.8	53.8
881	2021-03-10	16:24:51	53.8	54.4	54.7	56.3	57.2
886	2021-03-10	16:24:56	57.2	56.9	56.3	56.4	57.2
891	2021-03-10	16:25:01	56.5	56.4	56.3	56.4	56.4
896	2021-03-10	16:25:06	56.2	56.2	56.0	55.9	57.3
901	2021-03-10	16:25:11	57.7	58.7	58.8	57.5	56.8
906	2021-03-10	16:25:16	57.7	57.1	57.6	56.5	57.5

911	2021-03-10	16:25:21	56.7	55.9	55.4	55.5	55.4
916	2021-03-10	16:25:26	54.9	54.3	54.4	54.5	54.9
921	2021-03-10	16:25:31	54.9	55.0	55.1	55.5	55.9
926	2021-03-10	16:25:36	57.3	58.0	57.3	55.8	55.1
931	2021-03-10	16:25:41	54.3	55.1	55.0	55.4	55.8
936	2021-03-10	16:25:46	56.0	56.2	55.8	55.9	56.6
941	2021-03-10	16:25:51	56.1	55.2	55.1	54.5	53.8
946	2021-03-10	16:25:56	53.6	53.9	54.2	53.8	54.3
951	2021-03-10	16:26:01	54.3	54.4	54.4	54.5	54.7
956	2021-03-10	16:26:06	55.0	55.5	55.3	55.0	54.8
961	2021-03-10	16:26:11	54.7	54.1	54.6	54.4	54.4
966	2021-03-10	16:26:16	55.0	55.0	56.0	56.2	56.4
971	2021-03-10	16:26:21	55.5	55.5	56.8	55.9	55.1
976	2021-03-10	16:26:26	54.7	55.1	55.1	54.2	54.4
981	2021-03-10	16:26:31	54.1	53.9	53.5	53.5	54.9
986	2021-03-10	16:26:36	54.8	55.4	55.1	54.9	54.6
991	2021-03-10	16:26:41	54.1	54.3	55.1	55.3	54.9
996	2021-03-10	16:26:46	54.2	53.5	53.0	52.8	53.3
1001	2021-03-10	16:26:51	53.5	53.3	52.9	52.9	53.1
1006	2021-03-10	16:26:56	54.1	54.0	54.1	54.1	54.5
1011	2021-03-10	16:27:01	54.9	54.2	54.2	53.5	53.4
1016	2021-03-10	16:27:06	53.8	53.6	54.0	54.2	54.4
1021	2021-03-10	16:27:11	54.4	54.4	54.6	54.8	55.7
1026	2021-03-10	16:27:16	55.5	55.7	55.3	54.7	54.8
1031	2021-03-10	16:27:21	54.6	54.4	54.3	54.1	53.8
1036	2021-03-10	16:27:26	54.2	53.6	53.4	54.1	54.6
1041	2021-03-10	16:27:31	54.4	54.3	54.4	54.9	54.9
1046	2021-03-10	16:27:36	54.8	55.2	55.3	55.6	55.7
1051	2021-03-10	16:27:41	56.4	56.6	56.0	55.8	56.5
1056	2021-03-10	16:27:46	56.1	56.0	55.6	55.3	54.8
1061	2021-03-10	16:27:51	54.6	54.0	54.2	54.4	55.1
1066	2021-03-10	16:27:56	54.6	54.1	54.0	54.4	55.0
1071	2021-03-10	16:28:01	55.5	55.6	55.6	55.3	55.3
1076	2021-03-10	16:28:06	55.3	54.9	54.2	54.1	54.7
1081	2021-03-10	16:28:11	55.9	56.6	57.6	56.8	56.3
1086	2021-03-10	16:28:16	55.9	55.2	54.7	54.2	53.9
1091	2021-03-10	16:28:21	53.3	52.9	53.3	52.8	52.8
1096	2021-03-10	16:28:26	52.7	53.7	53.1	51.9	51.4
1101	2021-03-10	16:28:31	51.1	50.8	51.0	50.6	50.2
1106	2021-03-10	16:28:36	50.1	50.4	50.6	50.0	49.9
1111	2021-03-10	16:28:41	49.7	49.9	49.4	49.1	49.2
1116	2021-03-10	16:28:46	49.5	49.4	49.7	49.9	50.1
1121	2021-03-10	16:28:51	50.1	50.2	50.6	51.2	52.2
1126	2021-03-10	16:28:56	53.3	55.2	56.6	57.0	56.1
1131	2021-03-10	16:29:01	54.9	54.0	54.4	54.7	54.1
1136	2021-03-10	16:29:06	53.0	52.6	53.1	52.8	53.2
1141	2021-03-10	16:29:11	52.8	52.5	52.4	52.2	52.2
1146	2021-03-10	16:29:16	52.4	53.0	53.9	54.0	53.1
1151	2021-03-10	16:29:21	53.2	53.1	53.4	53.3	53.3
1156	2021-03-10	16:29:26	53.7	52.7	52.6	53.1	52.8
1161	2021-03-10	16:29:31	52.2	52.6	53.0	53.7	54.6
1166	2021-03-10	16:29:36	54.7	55.5	55.9	55.9	56.1
1171	2021-03-10	16:29:41	55.7	56.1	55.8	55.6	55.5
1176	2021-03-10	16:29:46	56.8	57.4	57.4	57.1	57.8
1181	2021-03-10	16:29:51	58.0	57.7	57.1	56.6	55.9
1186	2021-03-10	16:29:56	56.3	55.9	55.3	55.3	55.3
1191	2021-03-10	16:30:01	54.8	54.7	54.7	55.2	55.5
1196	2021-03-10	16:30:06	55.7	55.4	54.9	54.4	54.4
1201	2021-03-10	16:30:11	54.5	54.7	54.7	53.9	53.4
1206	2021-03-10	16:30:16	54.0	54.3	53.8	54.1	54.2
1211	2021-03-10	16:30:21	53.9	53.7	54.5	55.1	54.3
1216	2021-03-10	16:30:26	54.7	56.8	56.5	55.3	54.5
1221	2021-03-10	16:30:31	54.4	53.8	54.4	55.0	55.0
1226	2021-03-10	16:30:36	55.0	54.4	53.7	54.3	54.5
1231	2021-03-10	16:30:41	54.2	54.2	53.9	53.5	54.0
1236	2021-03-10	16:30:46	53.7	53.6	54.2	53.9	54.4
1241	2021-03-10	16:30:51	54.7	54.1	54.5	54.5	54.7
1246	2021-03-10	16:30:56	54.4	54.4	54.8	54.7	54.1
1251	2021-03-10	16:31:01	53.6	53.6	53.6	54.6	54.7
1256	2021-03-10	16:31:06	55.0	55.1	55.3	55.1	55.0
1261	2021-03-10	16:31:11	55.1	55.1	55.1	54.9	55.3
1266	2021-03-10	16:31:16	55.3	55.4	55.4	55.1	54.6
1271	2021-03-10	16:31:21	54.5	54.2	54.4	54.1	54.3
1276	2021-03-10	16:31:26	54.3	54.0	53.3	53.3	52.7
1281	2021-03-10	16:31:31	52.7	53.2	53.4	53.7	53.6
1286	2021-03-10	16:31:36	53.2	53.2	53.7	53.3	53.7
1291	2021-03-10	16:31:41	54.5	54.3	54.3	54.4	54.2
1296	2021-03-10	16:31:46	54.0	54.8	55.0	55.1	54.9
1301	2021-03-10	16:31:51	54.8	54.6	54.0	55.1	53.7
1306	2021-03-10	16:31:56	58.0	57.3	58.2	56.5	57.1
1311	2021-03-10	16:32:01	55.2	55.1	55.0	53.3	52.8
1316	2021-03-10	16:32:06	54.6	53.5	52.4	51.8	51.2
1321	2021-03-10	16:32:11	50.9	51.3*	51.3*	51.7*	51.8*
1326	2021-03-10	16:32:16	52.0*	52.9*	53.3*	52.9*	53.0*
1331	2021-03-10	16:32:21	53.8	54.2			

REC B - HISTOGRAM



Ln	0	1	2	3	4	5	6	7	8	9
L(00)		67.5	60.3	58.9	58.7	58.3	57.9	57.6	57.4	57.2
L(10)	57.1	56.9	56.8	56.6	56.5	56.4	56.2	56.1	56.0	55.9
L(20)	55.9	55.8	55.7	55.6	55.6	55.5	55.5	55.4	55.3	55.3
L(30)	55.3	55.2	55.2	55.1	55.1	55.0	55.0	54.9	54.9	54.9
L(40)	54.8	54.8	54.7	54.7	54.7	54.6	54.6	54.5	54.5	54.4
L(50)	54.4	54.4	54.4	54.3	54.3	54.3	54.2	54.2	54.1	54.1
L(60)	54.1	54.0	54.0	54.0	53.9	53.9	53.8	53.8	53.8	53.7
L(70)	53.7	53.6	53.6	53.6	53.5	53.5	53.4	53.4	53.3	53.3
L(80)	53.2	53.2	53.1	53.0	52.9	52.8	52.8	52.7	52.7	52.6
L(90)	52.5	52.4	52.2	52.1	52.0	51.8	51.5	51.2	50.6	49.7

REC A - DATA

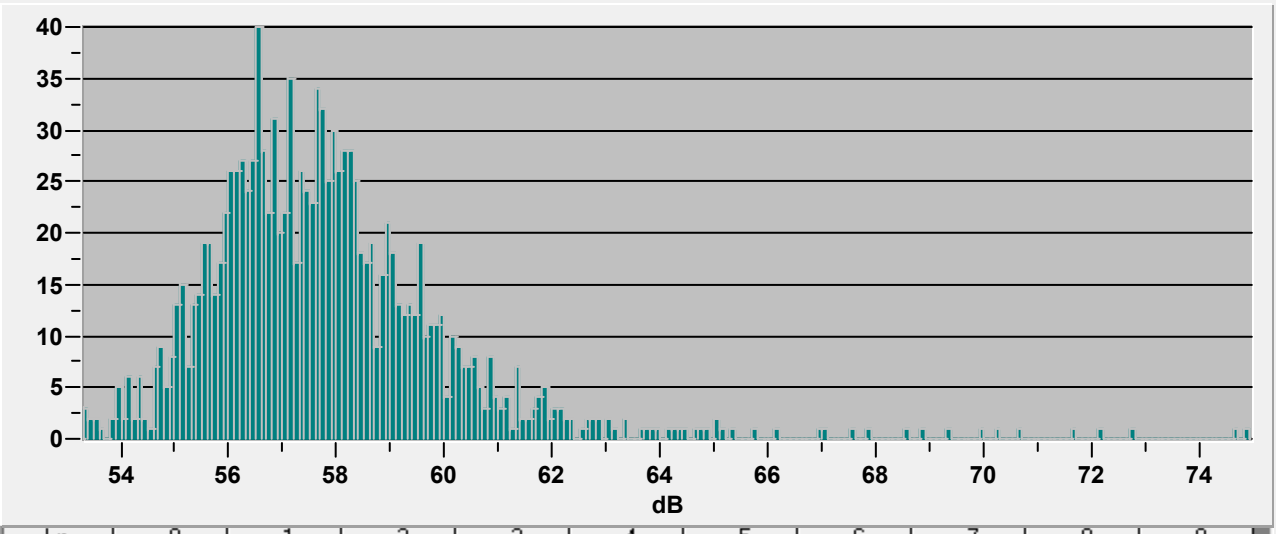
- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 75.0 - 2021/03/10 16:40:04
- Level Range : 40-100
- SEL : 89.8
- Leq : 58.9
-

No.s	Date Time	(dB)				
1	2021-03-10 16:33:29	57.9	57.6	57.7	57.8	57.7
6	2021-03-10 16:33:34	57.7	57.8	57.7	58.1	57.8
11	2021-03-10 16:33:39	58.3	58.3	58.3	58.2	58.0
16	2021-03-10 16:33:44	57.9	58.3	58.6	57.9	57.8
21	2021-03-10 16:33:49	58.2	57.7	57.7	57.5	56.8
26	2021-03-10 16:33:54	56.8	56.5	56.4	56.7	56.2
31	2021-03-10 16:33:59	56.1	56.3	55.9	55.7	57.6
36	2021-03-10 16:34:04	59.7	60.0	60.2	59.5	58.6
41	2021-03-10 16:34:09	58.2	58.1	58.4	58.0	57.1
46	2021-03-10 16:34:14	57.0	58.3	59.5	60.2	60.4
51	2021-03-10 16:34:19	59.0	57.8	57.5	58.1	59.7
56	2021-03-10 16:34:24	60.7	60.2	59.8	60.9	61.8
61	2021-03-10 16:34:29	61.5	61.7	60.1	58.8	57.4
66	2021-03-10 16:34:34	57.0	57.4	56.4	56.0	55.5
71	2021-03-10 16:34:39	55.1	55.0	54.5	53.9	53.9
76	2021-03-10 16:34:44	54.0	54.3	54.3	54.6	54.7
81	2021-03-10 16:34:49	54.7	55.4	56.3	56.9	56.7
86	2021-03-10 16:34:54	57.2	57.6	58.9	59.8	60.3
91	2021-03-10 16:34:59	59.9	59.0	58.4	58.5	59.3
96	2021-03-10 16:35:04	60.8	60.6	58.9	57.5	57.0
101	2021-03-10 16:35:09	56.1	55.5	54.9	55.8	56.2
106	2021-03-10 16:35:14	57.1	57.6	58.1	58.2	57.8
111	2021-03-10 16:35:19	57.4	57.3	58.2	57.8	57.6
116	2021-03-10 16:35:24	57.1	56.8	56.7	56.9	57.4
121	2021-03-10 16:35:29	58.4	59.6	58.6	57.8	57.7
126	2021-03-10 16:35:34	57.7	58.0	58.4	58.8	58.8
131	2021-03-10 16:35:39	58.6	58.5	58.5	59.6	59.4
136	2021-03-10 16:35:44	59.0	58.6	58.1	58.1	58.1
141	2021-03-10 16:35:49	58.1	58.7	58.3	58.2	58.4
146	2021-03-10 16:35:54	58.4	57.3	56.6	56.8	57.1
151	2021-03-10 16:35:59	56.9	56.5	55.9	57.9	57.5
156	2021-03-10 16:36:04	59.7	57.8	56.7	58.0	58.1
161	2021-03-10 16:36:09	57.1	56.3	56.0	56.1	56.4
166	2021-03-10 16:36:14	56.5	56.1	55.9	56.3	56.4
171	2021-03-10 16:36:19	56.7	56.5	56.5	56.5	56.0
176	2021-03-10 16:36:24	55.9	57.7	59.7	61.5	62.3
181	2021-03-10 16:36:29	61.8	60.1	58.5	57.5	57.1
186	2021-03-10 16:36:34	57.4	57.4	57.2	57.0	56.2
191	2021-03-10 16:36:39	56.0	56.2	56.3	56.1	55.6
196	2021-03-10 16:36:44	55.7	55.5	56.9	58.3	58.2
201	2021-03-10 16:36:49	59.5	59.6	58.8	58.2	58.1
206	2021-03-10 16:36:54	59.0	58.9	58.0	57.7	57.4
211	2021-03-10 16:36:59	56.9	56.5	57.5	56.7	57.9
216	2021-03-10 16:37:04	57.6	57.6	57.2	57.3	56.8
221	2021-03-10 16:37:09	57.2	57.4	57.9	58.1	58.1
226	2021-03-10 16:37:14	58.2	59.0	58.8	58.3	58.0
231	2021-03-10 16:37:19	58.0	57.5	57.1	56.6	56.6
236	2021-03-10 16:37:24	56.6	57.0	57.4	58.3	59.1
241	2021-03-10 16:37:29	59.9	60.4	60.6	60.3	60.1
246	2021-03-10 16:37:34	59.8	59.1	62.8	72.1	68.5
251	2021-03-10 16:37:39	67.5	65.0	62.3	60.3	59.0
256	2021-03-10 16:37:44	58.3	58.0	57.7	58.1	58.4
261	2021-03-10 16:37:49	58.5	58.2	58.0	58.1	57.9
266	2021-03-10 16:37:54	57.9	58.8	59.5	58.6	57.8
271	2021-03-10 16:37:59	57.5	57.7	57.1	57.2	59.4
276	2021-03-10 16:38:04	58.7	58.3	58.1	57.9	58.9
281	2021-03-10 16:38:09	59.1	59.2	60.2	60.3	59.4
286	2021-03-10 16:38:14	58.7	58.2	57.9	58.0	57.3
291	2021-03-10 16:38:19	56.9	56.8	56.5	56.4	56.0
296	2021-03-10 16:38:24	56.5	56.7	56.8	58.8	60.5
301	2021-03-10 16:38:29	60.9	60.6	60.5	60.1	59.9
306	2021-03-10 16:38:34	59.2	59.5	58.8	57.6	57.6
311	2021-03-10 16:38:39	58.4	59.0	60.1	60.2	58.9
316	2021-03-10 16:38:44	57.6	56.8	56.6	56.8	57.3
321	2021-03-10 16:38:49	57.3	56.8	57.0	57.9	58.0
326	2021-03-10 16:38:54	58.1	59.9	61.7	63.1	62.7
331	2021-03-10 16:38:59	62.2	62.2	61.3	59.9	59.0
336	2021-03-10 16:39:04	58.6	58.7	59.3	59.7	59.8
341	2021-03-10 16:39:09	59.7	59.1	58.2	57.7	57.4
346	2021-03-10 16:39:14	57.2	56.5	56.3	56.1	56.1
351	2021-03-10 16:39:19	56.1	56.4	56.3	55.9	55.5
356	2021-03-10 16:39:24	55.8	56.4	56.8	57.2	56.8
361	2021-03-10 16:39:29	56.9	57.1	57.7	58.3	59.3
366	2021-03-10 16:39:34	60.8	65.0	67.8	70.2	70.6
371	2021-03-10 16:39:39	68.8	66.1	63.0	60.4	58.6
376	2021-03-10 16:39:44	57.4	56.8	56.8	56.3	56.3
381	2021-03-10 16:39:49	56.4	56.5	56.9	57.7	57.4
386	2021-03-10 16:39:54	57.3	59.0	59.0	58.4	60.5
391	2021-03-10 16:39:59	64.3	67.0	69.3	71.6	74.8
396	2021-03-10 16:40:04	74.6	72.7	69.9	66.9	64.2
401	2021-03-10 16:40:09	62.1	61.6	60.2	58.9	57.5
406	2021-03-10 16:40:14	56.6	56.2	56.6	56.3	56.0
411	2021-03-10 16:40:19	56.1	55.9	55.8	55.4	55.5
416	2021-03-10 16:40:24	55.1	55.3	54.9	55.0	55.1

421	2021-03-10	16:40:29	55.6	56.0	56.1	56.0	55.7
426	2021-03-10	16:40:34	55.4	55.1	55.3	55.8	56.1
431	2021-03-10	16:40:39	56.4	56.4	56.4	57.9	61.3
436	2021-03-10	16:40:44	63.3	62.8	61.8	59.8	58.1
441	2021-03-10	16:40:49	56.8	56.0	55.9	56.0	55.6
446	2021-03-10	16:40:54	55.9	55.4	55.7	55.5	55.3
451	2021-03-10	16:40:59	56.0	56.8	57.6	58.2	58.0
456	2021-03-10	16:41:04	57.2	56.5	56.6	55.8	55.4
461	2021-03-10	16:41:09	55.1	55.2	55.0	55.1	54.9
466	2021-03-10	16:41:14	55.0	55.6	56.3	57.0	58.6
471	2021-03-10	16:41:19	58.9	59.1	59.1	58.6	57.4
476	2021-03-10	16:41:24	57.4	57.1	56.5	55.8	55.4
481	2021-03-10	16:41:29	54.9	55.6	55.7	56.1	56.4
486	2021-03-10	16:41:34	57.2	57.1	56.9	57.1	57.3
491	2021-03-10	16:41:39	56.9	56.9	56.5	56.6	56.2
496	2021-03-10	16:41:44	56.1	56.3	57.3	58.1	58.5
501	2021-03-10	16:41:49	59.0	58.9	58.7	59.8	59.6
506	2021-03-10	16:41:54	59.3	59.5	59.3	60.5	61.3
511	2021-03-10	16:41:59	61.1	61.7	61.6	61.6	60.8
516	2021-03-10	16:42:04	59.9	59.5	59.7	59.5	59.9
521	2021-03-10	16:42:09	59.9	59.5	58.5	57.9	57.6
526	2021-03-10	16:42:14	57.6	57.4	57.5	57.7	57.6
531	2021-03-10	16:42:19	58.3	58.0	57.3	57.0	57.8
536	2021-03-10	16:42:24	57.5	57.7	58.2	58.3	58.2
541	2021-03-10	16:42:29	58.2	58.0	60.5	62.1	64.7
546	2021-03-10	16:42:34	64.8	65.7	65.1	64.1	61.8
551	2021-03-10	16:42:39	59.2	57.3	56.2	55.4	55.4
556	2021-03-10	16:42:44	55.4	55.8	55.5	55.3	55.0
561	2021-03-10	16:42:49	55.1	55.6	56.2	56.2	56.0
566	2021-03-10	16:42:54	55.9	56.4	55.9	55.5	55.6
571	2021-03-10	16:42:59	55.5	55.5	55.5	55.6	56.1
576	2021-03-10	16:43:04	56.4	56.5	56.1	56.5	56.5
581	2021-03-10	16:43:09	56.5	56.7	56.4	56.0	56.5
586	2021-03-10	16:43:14	56.8	57.3	58.1	58.1	58.9
591	2021-03-10	16:43:19	60.3	61.0	61.0	60.8	60.1
596	2021-03-10	16:43:24	59.5	59.8	58.9	58.3	58.2
601	2021-03-10	16:43:29	57.9	57.8	58.1	58.0	57.7
606	2021-03-10	16:43:34	57.1	56.5	56.4	56.6	56.1
611	2021-03-10	16:43:39	55.8	55.2	55.1	54.9	54.9
616	2021-03-10	16:43:44	54.8	55.0	55.2	55.6	55.8
621	2021-03-10	16:43:49	55.7	55.5	55.6	55.4	55.9
626	2021-03-10	16:43:54	55.3	55.7	56.2	56.6	57.3
631	2021-03-10	16:43:59	58.4	57.7	57.9	57.3	57.2
636	2021-03-10	16:44:04	57.4	57.8	58.0	57.1	56.4
641	2021-03-10	16:44:09	55.9	56.9	56.2	56.5	56.5
646	2021-03-10	16:44:14	57.7	57.9	58.2	59.0	59.2
651	2021-03-10	16:44:19	59.0	58.8	58.6	58.5	57.8
656	2021-03-10	16:44:24	57.3	56.7	56.8	56.2	55.9
661	2021-03-10	16:44:29	56.1	56.2	56.2	56.2	56.9
666	2021-03-10	16:44:34	57.8	58.2	58.5	58.3	57.9
671	2021-03-10	16:44:39	57.9	57.9	58.6	58.5	57.6
676	2021-03-10	16:44:44	57.1	58.2	59.5	59.6	59.8
681	2021-03-10	16:44:49	59.8	59.4	58.1	56.7	55.8
686	2021-03-10	16:44:54	56.1	55.4	55.4	55.7	56.3
691	2021-03-10	16:44:59	56.6	56.6	57.6	58.4	58.9
696	2021-03-10	16:45:04	59.4	58.4	57.6	57.2	57.5
701	2021-03-10	16:45:09	59.2	58.9	58.6	58.4	57.9
706	2021-03-10	16:45:14	57.6	57.3	57.0	56.8	56.6
711	2021-03-10	16:45:19	57.7	56.8	55.8	55.1	54.3
716	2021-03-10	16:45:24	54.6	56.2	58.0	59.3	59.4
721	2021-03-10	16:45:29	57.6	55.8	54.7	53.9	53.5
726	2021-03-10	16:45:34	54.1	54.2	54.6	55.1	55.9
731	2021-03-10	16:45:39	57.6	58.8	59.6	59.8	59.5
736	2021-03-10	16:45:44	59.3	59.7	59.5	58.2	57.2
741	2021-03-10	16:45:49	56.5	56.6	56.7	57.0	56.5
746	2021-03-10	16:45:54	56.1	56.8	56.5	56.2	56.8
751	2021-03-10	16:45:59	57.6	57.7	57.1	56.5	56.4
756	2021-03-10	16:46:04	56.6	57.0	61.8	62.6	65.3
761	2021-03-10	16:46:09	63.7	61.9	60.2	59.2	58.2
766	2021-03-10	16:46:14	58.1	58.2	60.4	63.0	62.0
771	2021-03-10	16:46:19	61.9	61.7	60.8	60.1	60.7
776	2021-03-10	16:46:24	60.3	60.5	61.1	62.5	63.6
781	2021-03-10	16:46:29	63.3	62.0	61.4	61.0	60.6
786	2021-03-10	16:46:34	60.1	59.6	59.7	61.1	61.3
791	2021-03-10	16:46:39	61.4	60.6	60.0	59.5	59.4
796	2021-03-10	16:46:44	58.7	58.3	58.8	57.9	57.6
801	2021-03-10	16:46:49	57.1	57.1	58.0	58.9	59.2
806	2021-03-10	16:46:54	59.4	59.4	58.6	57.8	56.8
811	2021-03-10	16:46:59	56.2	55.9	55.5	55.9	56.4
816	2021-03-10	16:47:04	56.3	56.4	55.5	55.0	55.0
821	2021-03-10	16:47:09	56.0	57.3	56.2	55.7	55.7
826	2021-03-10	16:47:14	55.4	55.7	57.9	56.6	56.0
831	2021-03-10	16:47:19	56.4	56.3	56.0	57.1	56.6
836	2021-03-10	16:47:24	57.1	57.3	58.0	58.5	59.0
841	2021-03-10	16:47:29	59.2	58.5	59.1	59.5	60.1
846	2021-03-10	16:47:34	60.2	59.6	59.1	58.3	57.9
851	2021-03-10	16:47:39	56.7	55.6	54.8	55.2	55.7
856	2021-03-10	16:47:44	56.6	56.8	57.1	57.1	57.7
861	2021-03-10	16:47:49	57.7	58.5	59.4	59.1	58.8
866	2021-03-10	16:47:54	58.4	58.3	58.1	58.1	59.5
871	2021-03-10	16:47:59	59.4	59.1	59.4	60.0	59.8
876	2021-03-10	16:48:04	59.0	57.8	56.8	56.5	56.2
881	2021-03-10	16:48:09	56.0	56.6	57.1	57.3	57.5
886	2021-03-10	16:48:14	57.2	57.8	58.0	57.6	57.4
891	2021-03-10	16:48:19	57.2	57.1	56.8	57.0	57.3
896	2021-03-10	16:48:24	56.9	56.7	56.6	56.7	56.7
901	2021-03-10	16:48:29	57.6	58.2	58.3	58.3	57.3
906	2021-03-10	16:48:34	57.0	55.8	55.0	55.3	55.6

911	2021-03-10	16:48:39	55.6	55.6	55.2	54.6	56.2
916	2021-03-10	16:48:44	56.0	56.9	59.0	60.1	59.2
921	2021-03-10	16:48:49	57.8	57.1	57.1	56.8	57.1
926	2021-03-10	16:48:54	57.7	58.1	58.8	59.9	59.9
931	2021-03-10	16:48:59	59.3	58.3	57.7	57.1	57.4
936	2021-03-10	16:49:04	57.1	56.4	56.3	56.0	55.3
941	2021-03-10	16:49:09	55.6	55.3	55.3	55.2	54.8
946	2021-03-10	16:49:14	54.8	55.5	54.7	54.1	53.9
951	2021-03-10	16:49:19	54.1	54.8	56.2	57.1	57.5
956	2021-03-10	16:49:24	58.6	58.4	58.1	62.7	60.4
961	2021-03-10	16:49:29	58.6	57.5	56.8	57.5	59.2
966	2021-03-10	16:49:34	59.3	58.8	58.5	58.1	57.8
971	2021-03-10	16:49:39	58.0	58.4	58.6	58.6	58.9
976	2021-03-10	16:49:44	59.2	59.3	59.9	59.7	58.7
981	2021-03-10	16:49:49	59.1	58.9	59.3	58.7	58.5
986	2021-03-10	16:49:54	57.7	57.6	57.6	57.6	56.9
991	2021-03-10	16:49:59	56.9	57.9	58.2	58.3	58.6
996	2021-03-10	16:50:04	58.9	58.8	58.9	58.9	58.7
1001	2021-03-10	16:50:09	58.2	57.3	56.5	55.9	55.8
1006	2021-03-10	16:50:14	57.5	57.9	59.3	59.9	59.5
1011	2021-03-10	16:50:19	58.9	58.4	57.0	56.6	56.5
1016	2021-03-10	16:50:24	56.5	57.0	58.4	58.9	60.4
1021	2021-03-10	16:50:29	60.5	60.9	60.8	59.1	57.4
1026	2021-03-10	16:50:34	56.6	56.0	56.0	56.3	56.5
1031	2021-03-10	16:50:39	56.4	56.5	55.8	55.5	56.3
1036	2021-03-10	16:50:44	56.9	56.7	56.1	56.6	57.6
1041	2021-03-10	16:50:49	58.0	58.5	58.2	57.6	57.4
1046	2021-03-10	16:50:54	57.0	57.1	57.1	56.6	56.2
1051	2021-03-10	16:50:59	55.6	55.7	55.6	55.3	55.5
1056	2021-03-10	16:51:04	55.1	55.5	56.3	56.8	56.5
1061	2021-03-10	16:51:09	57.1	57.5	58.0	57.8	57.2
1066	2021-03-10	16:51:14	56.0	55.4	56.5	57.0	57.0
1071	2021-03-10	16:51:19	57.0	57.3	57.6	57.7	57.9
1076	2021-03-10	16:51:24	57.9	58.0	57.4	56.5	56.4
1081	2021-03-10	16:51:29	56.2	57.0	57.0	56.3	55.9
1086	2021-03-10	16:51:34	56.1	56.2	56.7	56.5	57.0
1091	2021-03-10	16:51:39	58.0	59.1	59.7	60.3	60.8
1096	2021-03-10	16:51:44	60.7	61.3	61.3	60.5	60.0
1101	2021-03-10	16:51:49	59.6	58.5	57.5	56.7	56.2
1106	2021-03-10	16:51:54	56.1	55.5	54.7	54.2	54.3
1111	2021-03-10	16:51:59	55.0	55.0	55.6	57.2	57.8
1116	2021-03-10	16:52:04	57.4	59.2	57.9	56.2	55.1
1121	2021-03-10	16:52:09	54.7	54.3	54.6	54.1	53.8
1126	2021-03-10	16:52:14	53.4	53.5	53.9	53.4	53.6
1131	2021-03-10	16:52:19	53.3	53.3	54.4	54.9	55.2
1136	2021-03-10	16:52:24	54.6	54.1	54.1	53.8	53.3
1141	2021-03-10	16:52:29	54.0	55.1	55.0	54.6	55.3
1146	2021-03-10	16:52:34	56.8	58.0	57.7	57.3	56.3
1151	2021-03-10	16:52:39	55.1	55.0	54.7	54.7	54.9
1156	2021-03-10	16:52:44	54.7	54.3	54.4	55.1	55.3
1161	2021-03-10	16:52:49	55.6	56.5	57.9	58.3	59.5
1166	2021-03-10	16:52:54	60.2	61.3	64.4	63.8	62.1
1171	2021-03-10	16:52:59	60.4	59.0	58.8	59.3	58.9
1176	2021-03-10	16:53:04	57.4	56.7	56.5	56.6	56.0
1181	2021-03-10	16:53:09	55.8	55.9	55.3	55.8	55.9
1186	2021-03-10	16:53:14	56.1	56.3	56.5	57.1	57.5
1191	2021-03-10	16:53:19	57.2	56.7	56.0	55.7	56.1
1196	2021-03-10	16:53:24	56.8	57.6	57.9	57.8	57.6
1201	2021-03-10	16:53:29	57.6	57.1	56.9	56.7	56.5
1206	2021-03-10	16:53:34	56.0	55.9	56.3	57.5	58.2
1211	2021-03-10	16:53:39	57.7	56.6	56.0	56.3	58.3
1216	2021-03-10	16:53:44	62.6	64.6	63.9	62.0	61.1
1221	2021-03-10	16:53:49	60.9	61.2	60.8	59.5	57.4
1226	2021-03-10	16:53:54	56.1	56.1	56.4	56.9	57.7
1231	2021-03-10	16:53:59	57.6	57.5	56.7	56.6	56.4
1236	2021-03-10	16:54:04	57.3	57.3	57.7	59.0	57.8
1241	2021-03-10	16:54:09	57.8	57.5	59.6	63.4*	63.3*
1246	2021-03-10	16:54:14	63.2*	62.7*	60.5*	58.8*	57.5*
1251	2021-03-10	16:54:19	56.6*	56.1*	56.0*	55.8*	55.9
1256	2021-03-10	16:54:24	56.4				

REC A - HISTOGRAM



Ln	0	1	2	3	4	5	6	7	8	9
L(00)		69.9	65.0	63.3	62.3	61.8	61.4	61.1	60.8	60.5
L(10)	60.4	60.2	60.1	59.9	59.8	59.7	59.5	59.5	59.4	59.3
L(20)	59.2	59.1	59.0	58.9	58.9	58.8	58.7	58.6	58.6	58.5
L(30)	58.4	58.3	58.3	58.2	58.2	58.2	58.1	58.1	58.0	58.0
L(40)	57.9	57.9	57.8	57.8	57.7	57.7	57.7	57.6	57.6	57.6
L(50)	57.5	57.4	57.4	57.3	57.3	57.2	57.2	57.1	57.1	57.0
L(60)	57.0	56.9	56.9	56.8	56.8	56.7	56.7	56.6	56.6	56.5
L(70)	56.5	56.5	56.4	56.4	56.4	56.3	56.3	56.2	56.2	56.1
L(80)	56.1	56.0	56.0	55.9	55.9	55.8	55.7	55.6	55.6	55.5
L(90)	55.4	55.3	55.2	55.1	55.0	54.9	54.7	54.4	54.1	53.5

ITM INSTRUMENTS INC.

TORONTO
16975 Leslie Street
Newmarket, ON L3Y 9A1
Tel: (905) 952-3750
Fax: (905) 952-3751

MONTRÉAL
20800 Boul. Industriel
Ste-Anne-de-Bellevue, QC H9X 0A1
Tel: (514) 457-7280
Fax: (514) 457-4329

CALGARY
#209, 4615 112 Ave SE
Calgary, AB T2C 5J3
Tel: (403) 272-9332
Fax: (403) 248-5194

VANCOUVER
1282 Cliveden Av
Delta, BC V3M 6G4
Tel: (604) 254-9622
Fax: (604) 254-3123

www.itm.com - information@itm.com

Calibration Certificate

Customer: *Matt Baird*

Certificate: C331385-00-01

Unit Identification

Manufacturer: **Extech**
Model: **407780A**
Description: **Integrating Sound Level Meter**
Serial: **190309665**
Unit ID: **N/A**

Calibration Date

Calibration Date: **6-Apr-2020**
Due Date: **6-Apr-2021**

Calibration Conditions

Temperature: **22.47°C**
Humidity: **21.16 %**
Barometric Pressure: **N/A**

General Information

Remark:N/A

Standards Used

Unit ID	Manufacturer	Model	Cal Date	Due Date
INV105	IET Labs Inc	1986	18-Sep-2019	18-Sep-2020

The calibration was performed using measurement standards traceable to the National Measurement Institute Standards (NMIS) part of the National Research Council of Canada (NRC) or the National Institute of Standards and Technology (NIST), or to accepted instrinsic standards or measurement, or is derived by ratio type self-calibration techniques. Measurement uncertainties given in this report are based on a coverage factor of k=2 corresponding to a confidence level of approximately 95%.

Calibrated by: ***J. Naidoo***

Approved by:

ITM INSTRUMENTS INC.

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Test Results
Procedure: **Sound Level Meter (Type 2) Res_0.1 band A,C** Rev: 1
Data Type: **As Found** Results: **Pass**

Test Description	True Value	Reading	Lower Limit	Upper Limit	Test Status	Exp Uncert
--- FREQUENCY-WEIGHTING CHARATERISTICS ---						
CALIBRATION LEVEL = 114.0dB						
---------- A-WEIGHTING ----------						
97.9 dBA @ 125 Hz		98.1 dBA	95.9 dBA	99.9 dBA	Pass	2.6e-001 dBA
105.4 dBA @ 250 Hz		105.3 dBA	103.9 dBA	106.9 dBA	Pass	2.6e-001 dBA
110.8 dBA @ 500 Hz		110.7 dBA	109.3 dBA	112.3 dBA	Pass	2.6e-001 dBA
114.0 dBA @ 1 kHz		114.0 dBA	112.0 dBA	116.0 dBA	Pass	2.6e-001 dBA
115.2 dBA @ 2 kHz		115.6 dBA	112.2 dBA	118.2 dBA	Pass	2.6e-001 dBA
115.0 dBA @ 4 kHz		116.8 dBA	105.0 dBA	120.5 dBA	Pass	5.0e-001 dBA
---------- C-WEIGHTING ----------						
113.8 dBC @ 125 Hz		114.3 dBC	112.8 dBC	114.8 dBC	Pass	2.6e-001 dBC
114.0 dBC @ 250 Hz		114.3 dBC	113.0 dBC	115.0 dBC	Pass	2.6e-001 dBC
114.0 dBC @ 500 Hz		114.2 dBC	113.0 dBC	115.0 dBC	Pass	2.6e-001 dBC
114.0 dBC @ 1 kHz		114.1 dBC	112.5 dBC	115.5 dBC	Pass	2.6e-001 dBC
113.8 dBC @ 2 kHz		114.2 dBC	111.3 dBC	116.3 dBC	Pass	2.6e-001 dBC
113.2 dBC @ 4 kHz		114.9 dBC	104.2 dBC	118.2 dBC	Pass	5.0e-001 dBC

Historical Provincial Highways Traffic Volumes

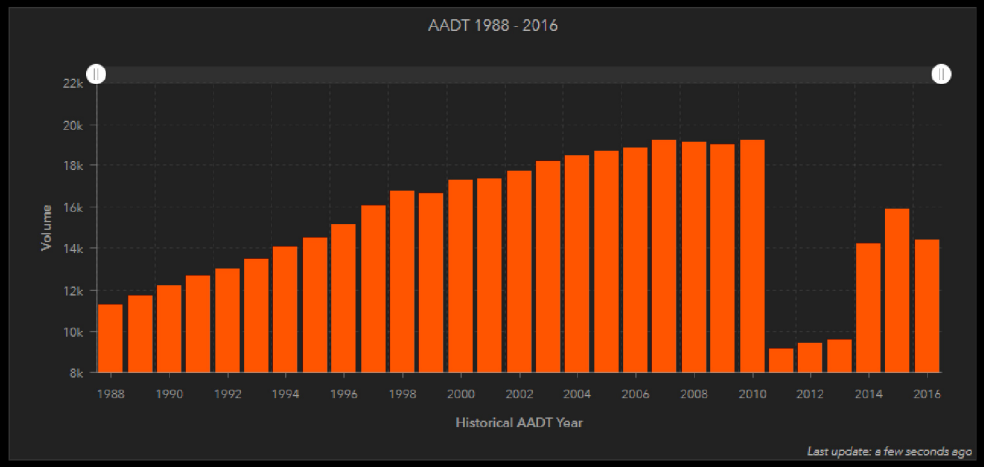
MTO iCorridor

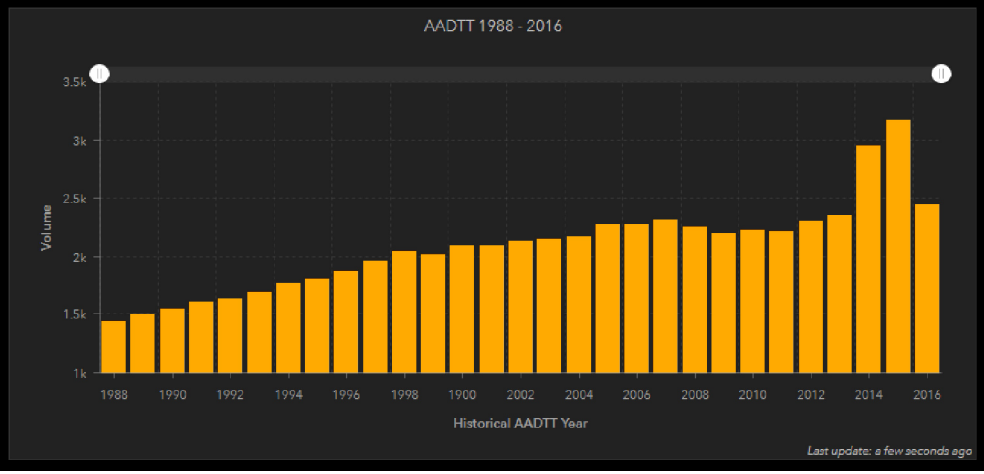
ABOUT

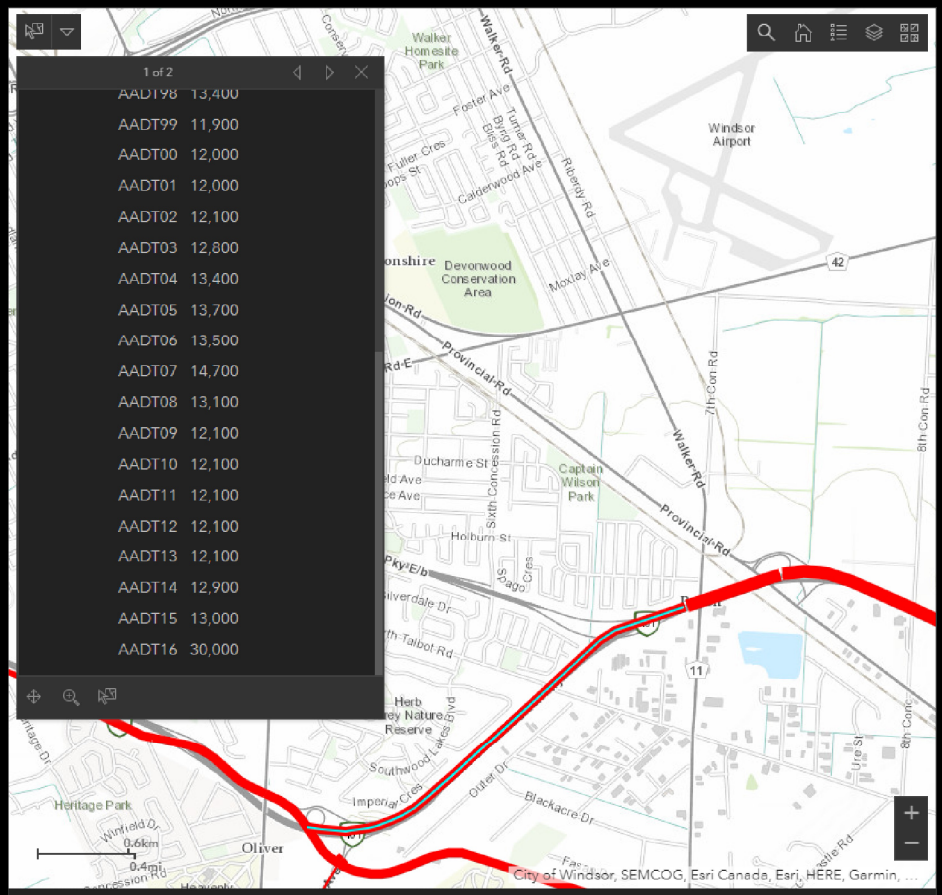
This application shows 1988 to 2016 annual average daily traffic and annual average daily truck traffic on provincial highways

The data is derived from the Ministry of Transportation's (MTO) inventory of annual traffic data for the Provincial Highways. The commercial vehicle volume data is sourced from the 2012 Commercial Vehicle Survey. The commercial volumes are first calculated using the AADT and the Commercial Percentage values for each traffic segment. These values are then adjusted to remove variations between segments caused by fluctuations in AADT.

MTO does not maintain volume by direction. For freeway segments with core/collector







1988 to 2016 annual average daily traffic (AADT), annual average daily truck traffic (AADTT), and Growth on provincial highways.

Shurjeel Tunio

From: Spagnuolo, Mike <mspagnuolo@citywindsor.ca>
Sent: February 17, 2021 4:07 PM
To: Jo Ann Foote
Cc: Nadim Mrad; Matt Baird; Shurjeel Tunio
Subject: RE: 1095 North Talbot Rd, Windsor (BairdAE PRJ 21-021)
Attachments: Receipt for Baird AE Inc..pdf; Southwood Lakes S of Talbot East Leg.xls; North Talbot E of Sixth Conc.xls; Sixth Conc N of North Talbot.xls

Your files and a copy of the receipt is attached.

MIKE SPAGNUOLO | TRAFFIC TECHNICIAN
THE CITY OF WINDSOR ONTARIO, CANADA
Office Of The City Engineer
1266 McDougall | Windsor, ON | N8X 3X7
(519) 255-6727
www.citywindsor.ca

From: Jo Ann Foote <JFoote@bairdae.ca>
Sent: Wednesday, February 17, 2021 3:04 PM
To: Spagnuolo, Mike <mspagnuolo@citywindsor.ca>; Perissinotti, Robert <rperissinotti@citywindsor.ca>
Cc: Nadim Mrad <NMrad@bairdae.ca>; Matt Baird <MBaird@bairdae.ca>; Shurjeel Tunio <STunio@bairdae.ca>
Subject: RE: 1095 North Talbot Rd, Windsor (BairdAE PRJ 21-021)

Attached, please find the completed form.

From: Nadim Mrad <NMrad@bairdae.ca>
Sent: February 17, 2021 1:32 PM
To: Jo Ann Foote <JFoote@bairdae.ca>
Subject: FW: 1095 North Talbot Rd, Windsor (BairdAE PRJ 21-021)

Hi Jo Ann,

Can you please process this payment.

Thank you,
Nadim
519.300.1705

From: Spagnuolo, Mike <mspagnuolo@citywindsor.ca>
Sent: Wednesday, February 17, 2021 12:00 PM
To: Shurjeel Tunio <STunio@bairdae.ca>; Perissinotti, Robert <rperissinotti@citywindsor.ca>

Cc: Matt Baird <MBaird@bairdae.ca>; Nadim Mrad <NMrad@bairdae.ca>
Subject: RE: 1095 North Talbot Rd, Windsor (BairdAE PRJ 21-021)

Credit card authorization form is attached. The cost will be $90+$11.70HST = $**101.70**

MIKE SPAGNUOLO | TRAFFIC TECHNICIAN
THE CITY OF WINDSOR ONTARIO, CANADA
Office Of The City Engineer
1266 McDougall | Windsor, ON | N8X 3X7
(519) 255-6727
www.citywindsor.ca

From: Shurjeel Tunio <STunio@bairdae.ca>
Sent: Wednesday, February 17, 2021 11:42 AM
To: Spagnuolo, Mike <mspagnuolo@citywindsor.ca>; Perissinotti, Robert <rperissinotti@citywindsor.ca>
Cc: Matt Baird <MBaird@bairdae.ca>; Nadim Mrad <NMrad@bairdae.ca>
Subject: RE: 1095 North Talbot Rd, Windsor (BairdAE PRJ 21-021)

Hi Mike

Yes, we require hourly volumes as well. Please let me know how we can pay for this request.

Regards
Shurjeel

From: Spagnuolo, Mike <mspagnuolo@citywindsor.ca>
Sent: February 17, 2021 11:37 AM
To: Shurjeel Tunio <STunio@bairdae.ca>; Perissinotti, Robert <rperissinotti@citywindsor.ca>
Cc: Matt Baird <MBaird@bairdae.ca>; Nadim Mrad <NMrad@bairdae.ca>
Subject: RE: 1095 North Talbot Rd, Windsor (BairdAE PRJ 21-021)

Good morning Shurjeel. I have the following ADT's in the immediate area;
North Talbot east of Sixth Concession – 8,100 (2014)
Sixth Concession north of North Talbot – 6,600 (2014)
Southwood Lakes Blvd south of North Talbot – 3,4000 (2008)

Should you require the 7 day hourly breakdown, they are available at $30+HST per location.
Regards,

MIKE SPAGNUOLO | TRAFFIC TECHNICIAN
THE CITY OF WINDSOR ONTARIO, CANADA
Office Of The City Engineer
1266 McDougall | Windsor, ON | N8X 3X7
(519) 255-6727

From: Shurjeel Tunio <STunio@bairdae.ca>
Sent: Wednesday, February 17, 2021 11:24 AM
To: Perissinotti, Robert <rperissinotti@citywindsor.ca>
Cc: Matt Baird <MBaird@bairdae.ca>; Nadim Mrad <NMrad@bairdae.ca>; Spagnuolo, Mike <mspagnuolo@citywindsor.ca>
Subject: 1095 North Talbot Rd, Windsor (BairdAE PRJ 21-021)

Good Morning Rob

We are currently working on Traffic Impact Study for proposed residential development in Windsor, Ontario. We are looking for traffic counts for intersections of North Talbot Road with Sixth Concession Road, Pioneer Avenue and Old W Avenue.

Please contact me if you have questions or required additional information.

Thanks
Shurjeel

Shurjeel Tunio, P.Eng.
Senior Project Manager

BAIRD|AE
architecture + engineering

100-267 Pelissier Street
Windsor, ON, N9A 4K4
T 519-419-4965 x208
shurjeel@bairdae.ca
Check out our new website at www.bairdae.ca

C8 Warning Clauses

The use of warning clauses or easements in respect of noise are recommended when circumstances warrant. Noise warning clauses may be used to warn of potential annoyance due to an existing source of noise and/or to warn of excesses above the sound level limits. Direction on the use of warning clauses should be included in agreements that are registered on title to the lands in question. The warning clauses would be included in agreements of Offers of Purchase and Sale, lease/rental agreements and condominium declarations. Alternatively, the use of easements in respect of noise may be appropriate in some circumstances. Additional guidance on the use of noise warning clauses is provided in Section C7.1.1, Section C7.1.2.1, Section C7.1.2.2, Section C7.3 and Section C7.4.

C8.1 Transportation Sources

The following warning clauses may be used individually or in combination:

Type A: (see Section C7.1.1)

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

Type B: (see Section C7.1.1 and Section C7.4)

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

Type C: (see Section C7.1.2.1, Section C7.1.2.2 and Section C7.4)

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

Type D: (see Section C7.1.2.1, Section C7.1.2.2 and Section C7.4)

"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."

C8.2 Stationary Sources

It is not acceptable to use warning clauses in place of physical noise control measures to identify an excess over the MOE sound level limits. Warning clause (Type E) for stationary sources may identify a potential concern due to the proximity of the facility but it is not acceptable to justify exceeding the sound level limits.

Type E: (see Section C7.6)

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

C8.3 Class 4 Area Notification

Type F: (see Section B9.2 and Section C4.4.2)

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

Government of Canada / Gouvernement du Canada

Windsor Airport, Ontario

Latitude 42.28° N | Longitude 82.96° W

Past 24 Hour Conditions

Imperial units | Graphic

Date / Time (EST)	Conditions	Temperature (°C)	Wind (km/h)	Relative humidity (%)	Dew point (°C)	Pressure (kPa)	Visibility (km)
11 March 2021							
10:00	Cloudy	15 (14.7)	SSW 37 gust 59	68	9	101.4	16
09:00	Cloudy	14 (14.3)	SSW 39 gust 59	64	8	101.4	16
08:00	Mostly Cloudy	14 (14.0)	SSW 32 gust 48	62	7	101.4	16
07:00	Mainly Sunny	13 (13.2)	SSW 35 gust 50	64	7	101.5	16
06:00	Clear	14 (13.5)	SSW 33 gust 46	61	6	101.4	16
05:00	Partly Cloudy	14 (13.8)	SSW 33 gust 46	60	6	101.4	16

Date / Time (EST)	Conditions	Temperature (°C)	Wind (km/h)	Relative humidity (%)	Dew point (°C)	Pressure (kPa)	Visibility (km)
04:00	Cloudy	14 (14.1)	SSW 30 gust 45	61	7	101.4	16
03:00	Cloudy	15 (14.8)	SSW 35 gust 50	59	7	101.5	16
02:00	Cloudy	14 (14.4)	SSW 30 gust 46	57	6	101.5	16
01:00	Cloudy	14 (13.9)	S 28 gust 41	56	5	101.5	16
00:00	Cloudy	14 (14.3)	SSW 28 gust 42	53	5	101.6	16
10 March 2021							
23:00	Cloudy	14 (14.3)	SSW 28 gust 41	52	5	101.6	16
22:00	Cloudy	16 (15.5)	SSW 26 gust 42	50	5	101.6	16
21:00	Cloudy	15 (15.2)	S 24 gust 33	56	7	101.7	16
20:00	Cloudy	16 (15.6)	SSW 22 gust 35	56	7	101.7	16

Date / Time (EST)	Conditions	Temperature (°C)	Wind (km/h)	Relative humidity (%)	Dew point (°C)	Pressure (kPa)	Visibility (km)
19:00	 Mostly Cloudy	16 (16.1)	SSW 35 gust 52	56	7	101.7	16
18:00	 Cloudy	17 (17.0)	SSW 35 gust 54	54	8	101.6	16
17:00	 Partly Cloudy	17 (17.4)	SSW 35 gust 54	51	7	101.6	16
16:00	 Mostly Cloudy	19 (18.6)	SSW 39 gust 54	46	7	101.6	16
15:00	 Mostly Cloudy	19 (18.8)	SSW 32 gust 46	45	7	101.7	16
14:00	 Mostly Cloudy	19 (19.1) ↑	SSW 37 gust 50	42	6	101.8	16
13:00	 Mainly Sunny	18 (17.6)	SSW 41 gust 50	41	4	101.9	16
12:00	 Mostly Cloudy	16 (16.2)	SSW 37 gust 54	41	3	102.0	16
11:00	 Mainly Sunny	15 (14.6)	SSW 37 gust 52	41	2	102.1	16
10:00	 Mostly Cloudy	12 (12.4) ↓	SSW 37 gust 48	45	1	102.2	16

▼ Legend

n/a: not available

This table displays weather elements available for this station

Highest temperature ↑

Lowest temperature ↓

Equal temperature values are all highlighted

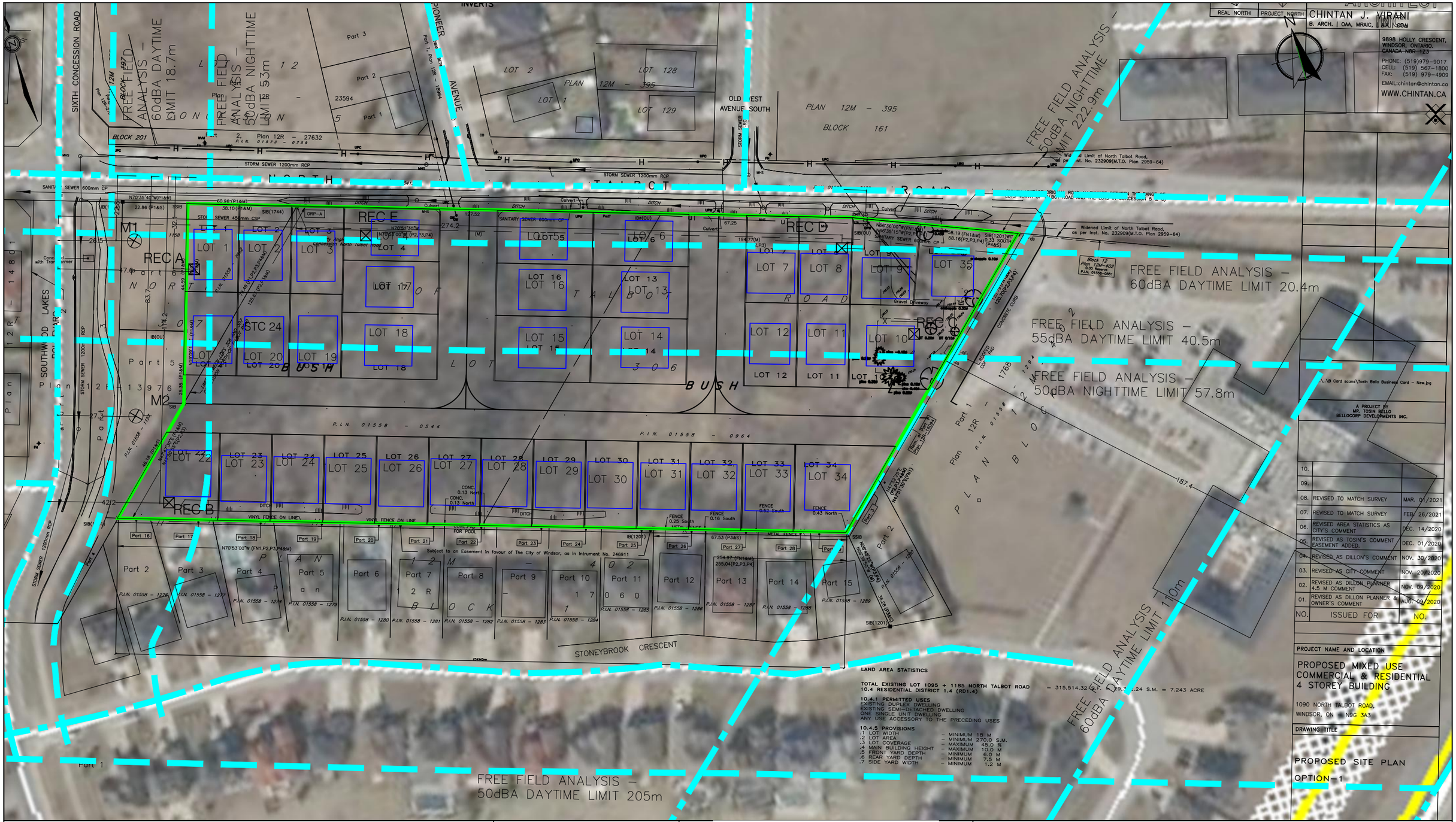
This is an automated product, generated using preliminary data.

If you require additional historical weather information, please visit Climate website.

Date modified: 2021-03-11

Appendix B

FREE FIELD NOISE LEVEL,
ATTENUATED NOISE LEVEL
AND
MITIGATION MEASURES



LEGEND

- RECEIVER LOCATION
- PROPOSED DEVELOPMENT
- NOISE MONITORING

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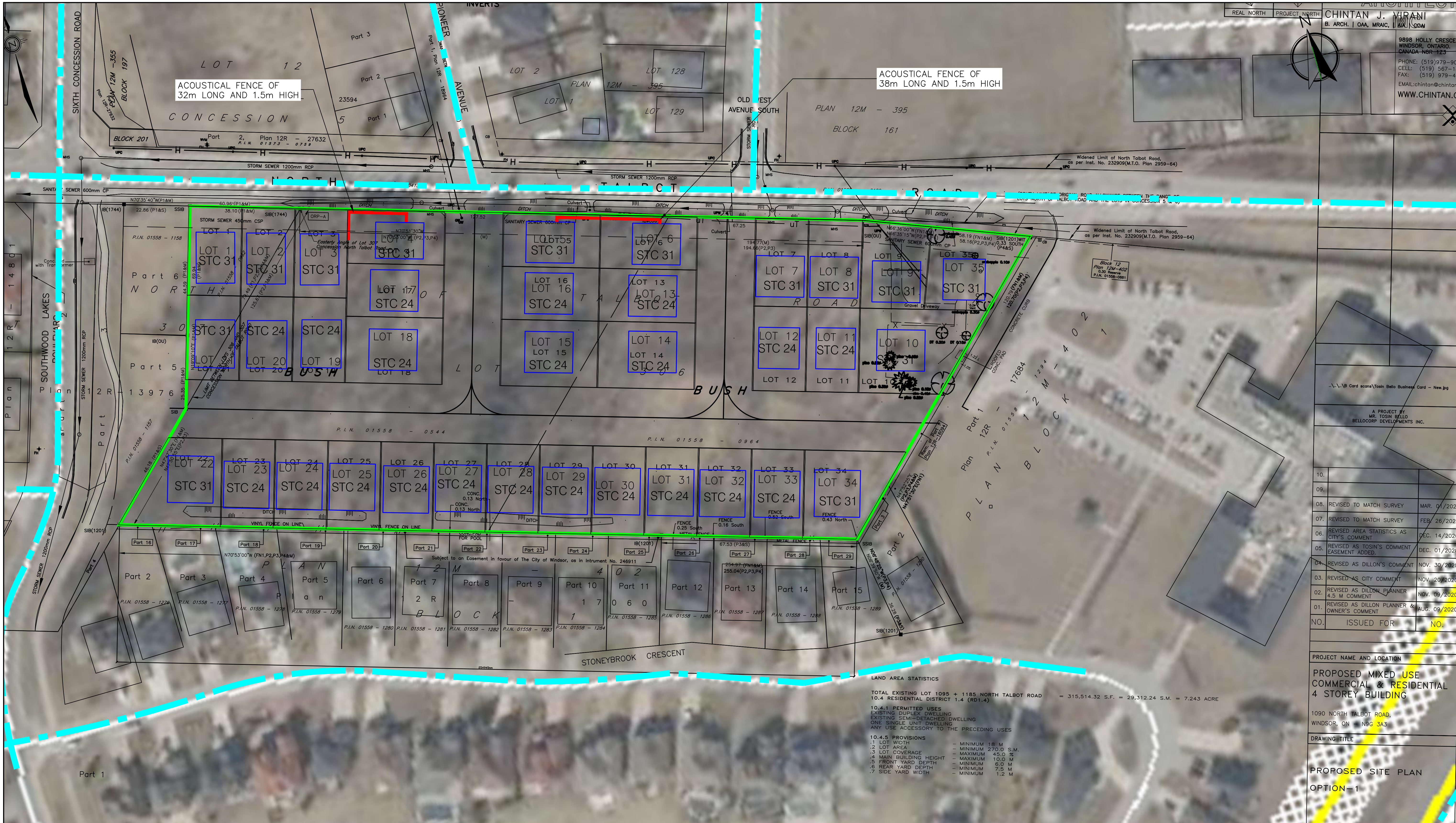
FIGURE 1 - NOISE INFORMATION PLAN	S.T.	NTS	MAR 12 2021
	ST.	1 OF 4	21-021



LEGEND

☒	RECEIVER LOCATION	STC	SOUND TRANSMISSION CLASS
☐	PROPOSED DEVELOPMENT	(red line)	ACOUSTICAL FENCE
⊗	NOISE MONITORING		

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FIGURE 4 - ATTENUATED NOISE FEATURES	S.T.	NTS	MAR 12 2021
	ST.	4 OF 4	21-021

Appendix C

STAMSON OUTPUT

STAMSON 5.0 NORMAL REPORT Date: 15-02-2006 21:41:20
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rec1.te Time Period: Day/Night 16/8 hours
Description: **Monitoring Location 1**

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

Car traffic volume : 8711/2178 veh/TimePeriod *
Medium truck volume : 181/45 veh/TimePeriod *
Heavy truck volume : 181/45 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 8100
Percentage of Annual Growth : 2.00
Number of Years of Growth : 17.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 80.00

Data for Segment # 1: Talbot (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 22.80 / 22.80 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: southwood (day/night)

Car traffic volume : 4118/1029 veh/TimePeriod *
Medium truck volume : 86/21 veh/TimePeriod *
Heavy truck volume : 86/21 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 3400
Percentage of Annual Growth : 2.00
Number of Years of Growth : 23.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 80.00

Data for Segment # 2: southwood (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.00 / 27.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Talbot (day)

Source height = 1.19 m

ROAD (0.00 + 56.13 + 0.00) = 56.13 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.66	63.62	0.00	-3.02	-4.47	0.00	0.00	0.00	56.13

Segment Leq : 56.13 dBA

Results segment # 2: southwood (day)

Source height = 1.19 m

ROAD (0.00 + 51.67 + 0.00) = 51.67 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.66	60.38	0.00	-4.24	-4.47	0.00	0.00	0.00	51.67

Segment Leq : 51.67 dBA

Total Leq All Segments: 57.46 dBA

Results segment # 1: Talbot (night)

Source height = 1.19 m

ROAD (0.00 + 53.39 + 0.00) = 53.39 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.58	60.59	0.00	-2.87	-4.33	0.00	0.00	0.00	53.39

Segment Leq : 53.39 dBA

Results segment # 2: southwood (night)

Source height = 1.18 m

ROAD (0.00 + 48.94 + 0.00) = 48.94 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.58	57.31	0.00	-4.03	-4.33	0.00	0.00	0.00	48.94

Segment Leq : 48.94 dBA

Total Leq All Segments: 54.72 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 57.46
(NIGHT): 54.72

STAMSON 5.0 NORMAL REPORT Date: 15-02-2006 17:52:59
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: recb.te Time Period: Day/Night 16/8 hours
Description: Description: **Monitoring Location 2**

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

Car traffic volume : 8711/2178 veh/TimePeriod *
Medium truck volume : 181/45 veh/TimePeriod *
Heavy truck volume : 181/45 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 8100
Percentage of Annual Growth : 2.00
Number of Years of Growth : 17.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 80.00

Data for Segment # 1: Talbot (day/night)

Angle1 Angle2 : -90.00 deg 0.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 83.00 / 83.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: southwood (day/night)

Car traffic volume : 4118/1029 veh/TimePeriod *
Medium truck volume : 86/21 veh/TimePeriod *
Heavy truck volume : 86/21 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 3400
Percentage of Annual Growth : 2.00
Number of Years of Growth : 23.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 80.00

Data for Segment # 2: southwood (day/night)

Angle1 Angle2 : 0.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.00 / 27.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Talbot (day)

Source height = 1.19 m

ROAD (0.00 + 46.82 + 0.00) = 46.82 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.66	63.62	0.00	-12.33	-4.47	0.00	0.00	0.00	46.82

Segment Leq : 46.82 dBA

Results segment # 2: southwood (day)

Source height = 1.19 m

ROAD (0.00 + 51.67 + 0.00) = 51.67 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.66	60.38	0.00	-4.24	-4.47	0.00	0.00	0.00	51.67

Segment Leq : 51.67 dBA

Total Leq All Segments: 52.90 dBA

Results segment # 1: Talbot (night)

Source height = 1.19 m

ROAD (0.00 + 44.53 + 0.00) = 44.53 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	0	0.58	60.59	0.00	-11.73	-4.33	0.00	0.00	0.00	44.53

Segment Leq : 44.53 dBA

Results segment # 2: southwood (night)

Source height = 1.18 m

ROAD (0.00 + 48.94 + 0.00) = 48.94 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.58	57.31	0.00	-4.03	-4.33	0.00	0.00	0.00	48.94

Segment Leq : 48.94 dBA

Total Leq All Segments: 50.28 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 52.90
(NIGHT): 50.28

STAMSON 5.0 NORMAL REPORT Date: 15-02-2006 22:23:46
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ffa1.te Time Period: Day/Night 16/8 hours
Description: **FREE FIELD ANALYSIS – TALBOT STREET**

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

Car traffic volume : 8711/2178 veh/TimePeriod *
Medium truck volume : 181/45 veh/TimePeriod *
Heavy truck volume : 181/45 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 8100
Percentage of Annual Growth : 2.00
Number of Years of Growth : 17.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 80.00

Data for Segment # 1: Talbot (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 20.40 / 57.80 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Talbot (day)

Source height = 1.19 m

ROAD (0.00 + 59.95 + 0.00) = 59.95 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	63.62	0.00	-2.22	-1.46	0.00	0.00	0.00	59.95

Segment Leq : 59.95 dBA

Total Leq All Segments: 59.95 dBA

Results segment # 1: Talbot (night)

Source height = 1.19 m

ROAD (0.00 + 50.02 + 0.00) = 50.02 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.58	60.59	0.00	-9.25	-1.32	0.00	0.00	0.00	50.02

Segment Leq : 50.02 dBA

Total Leq All Segments: 50.02 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 59.95
(NIGHT): 50.02

STAMSON 5.0 NORMAL REPORT Date: 15-02-2006 22:24:28
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ffa2.te Time Period: Day/Night 16/8 hours
Description: **FREE FIELD ANALYSIS – SOUTHWOOD LAKES**

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

Car traffic volume : 7583/1896 veh/TimePeriod *
Medium truck volume : 158/39 veh/TimePeriod *
Heavy truck volume : 158/39 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 8100
Percentage of Annual Growth : 2.00
Number of Years of Growth : 10.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 80.00

Data for Segment # 1: Southwood (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 18.70 / 53.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Southwood (day)

Source height = 1.19 m

ROAD (0.00 + 59.98 + 0.00) = 59.98 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	63.02	0.00	-1.59	-1.46	0.00	0.00	0.00	59.98

Segment Leq : 59.98 dBA

Total Leq All Segments: 59.98 dBA

Results segment # 1: Southwood (night)

Source height = 1.19 m

ROAD (0.00 + 50.00 + 0.00) = 50.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.58	59.98	0.00	-8.66	-1.32	0.00	0.00	0.00	50.00

Segment Leq : 50.00 dBA

Total Leq All Segments: 50.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 59.98
(NIGHT): 50.00

STAMSON 5.0 NORMAL REPORT Date: 15-02-2006 22:26:59
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ffa3.te Time Period: Day/Night 16/8 hours
Description: **FREE FIELD ANALYSIS – HIGHWAY 401**

Road data, segment # 1: hWY 401 (day/night)

Car traffic volume : 15504/3876 veh/TimePeriod *
Medium truck volume : 323/81 veh/TimePeriod *
Heavy truck volume : 323/81 veh/TimePeriod *
Posted speed limit : 100 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

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

24 hr Traffic Volume (AADT or SADT): 15000
Percentage of Annual Growth : 2.00
Number of Years of Growth : 15.00
Medium Truck % of Total Volume : 2.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 80.00

Data for Segment # 1: hWY 401 (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 110.00 / 222.92 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: hWY 401 (day)

Source height = 1.19 m

ROAD (0.00 + 57.01 + 0.00) = 57.01 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	72.83	0.00	-14.36	-1.46	0.00	0.00	0.00	57.01

Segment Leq : 57.01 dBA

Total Leq All Segments: 57.01 dBA

Results segment # 1: hWY 401 (night)

Source height = 1.19 m

ROAD (0.00 + 50.00 + 0.00) = 50.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.58	69.82	0.00	-18.51	-1.32	0.00	0.00	0.00	50.00

Segment Leq : 50.00 dBA

Total Leq All Segments: 50.00 dBA

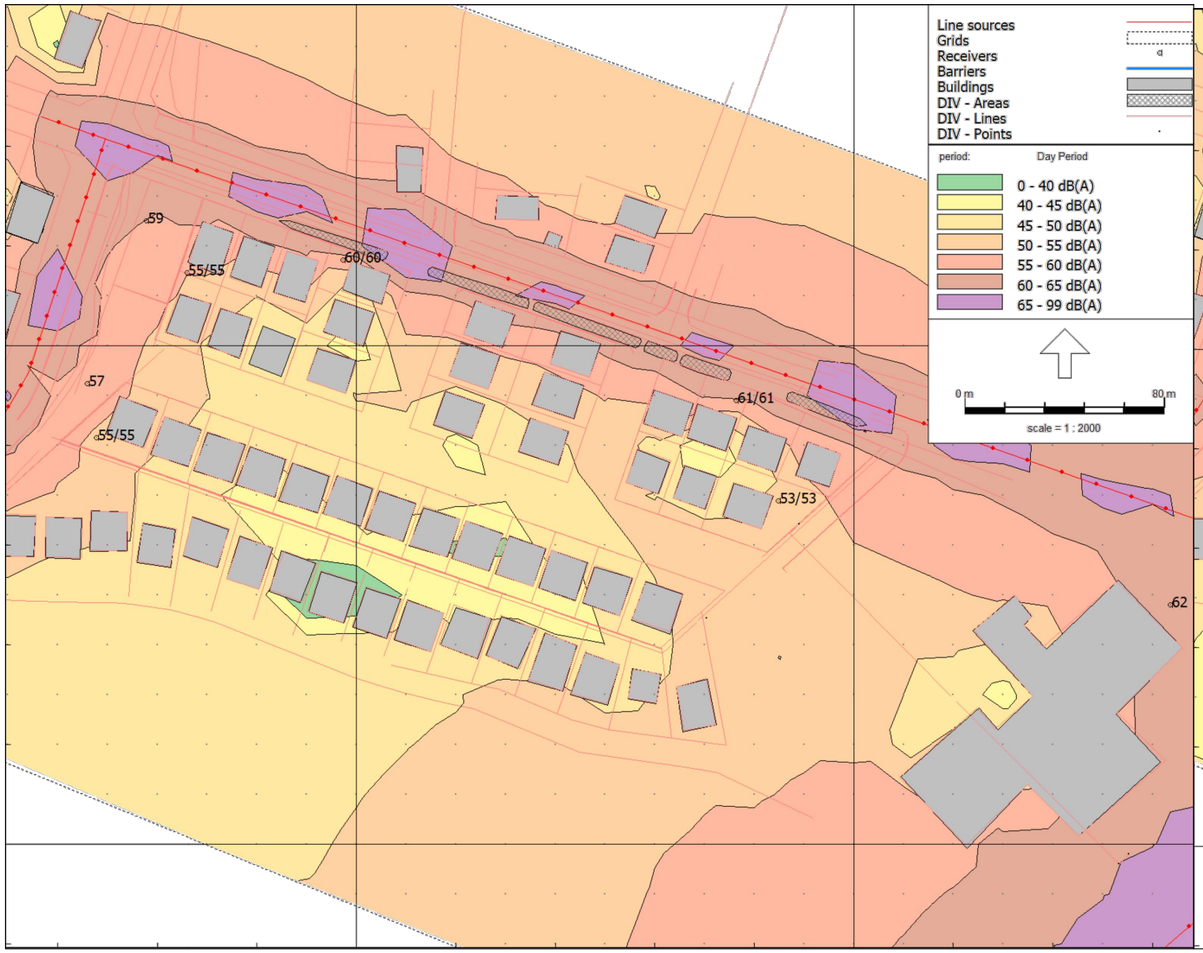
TOTAL Leq FROM ALL SOURCES (DAY): 60.01
(NIGHT): 50.00

Appendix D

INOISE OUTPUT RESULTS AND ASSUMPTION

N

UNATTENUATED DAYTIME NOISE LEVEL



UNATTENUATED NIGHTTIME NOISE LEVEL

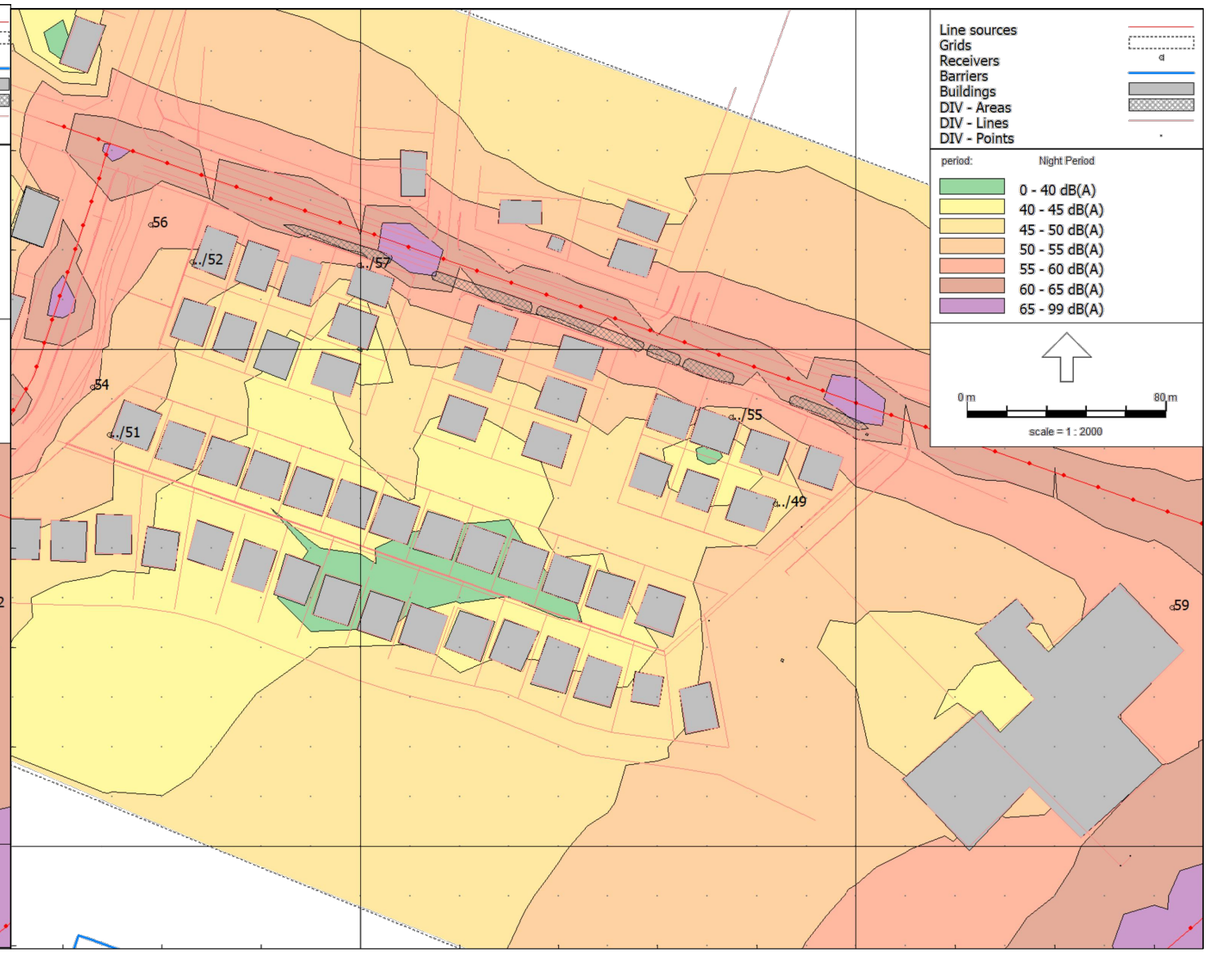


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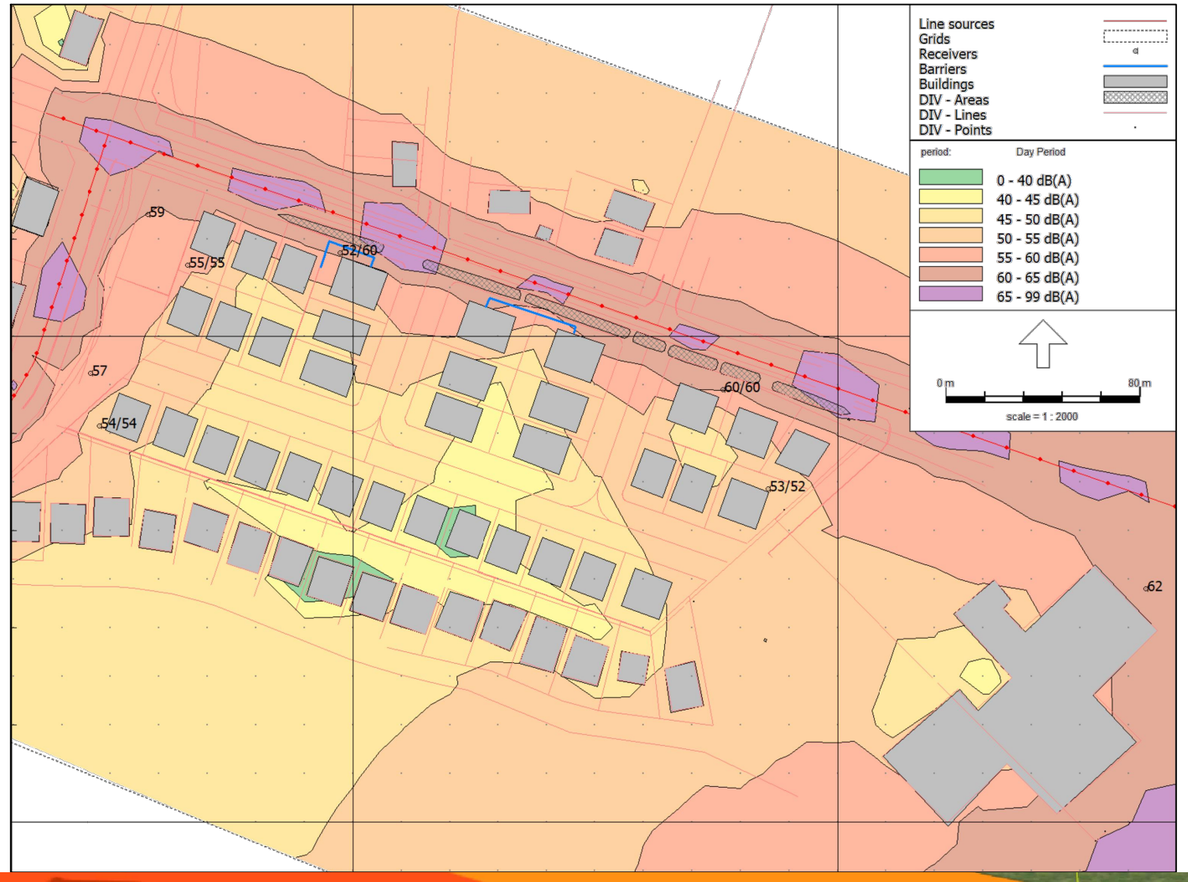
FIGURE 2 - INOISE RESULTS UNATENUATED NOISE LEVELS	S.T.	NTS	MAR 12 2021
	ST.	2 OF 4	21-021

ATTENUATED NOISE LEVEL



3D VIEW

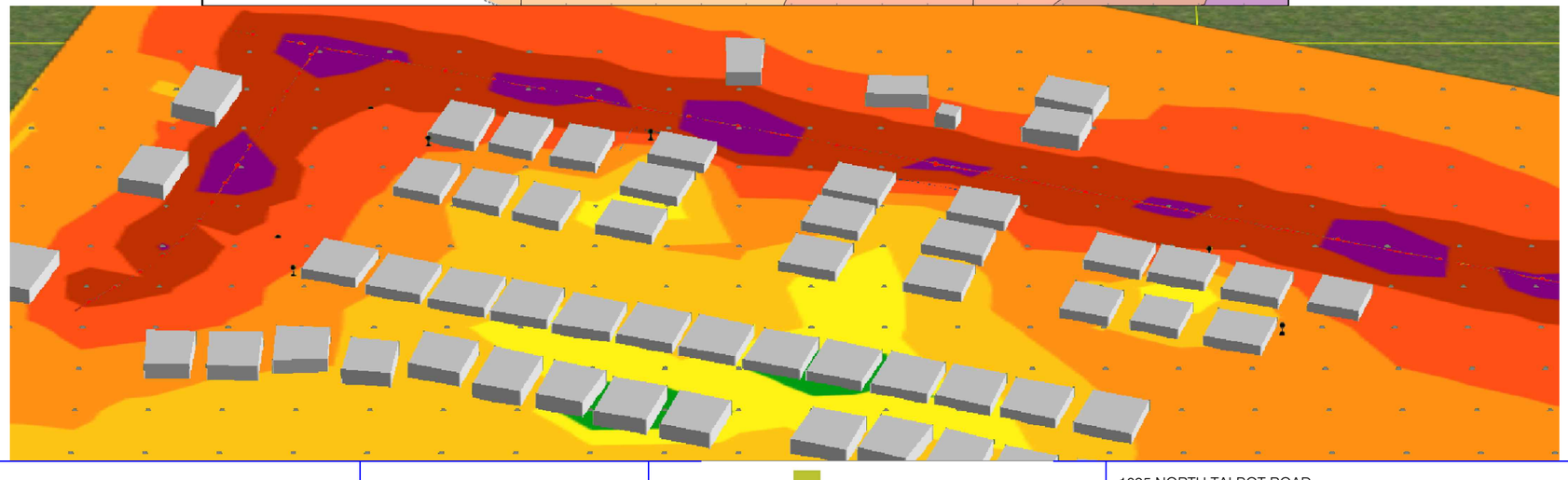


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FIGURE 3 - INOISE RESULTS ATTENUATED RESULTS AND 3D VIEW	S.T.	NTS	MAR 12 2021
	ST.	3 OF 4	21-021

Report: Table of Results
Model: initial model
LAeq: total results for receivers
Group: (main group)
Group Reduction: No

Name Receiver	Description	Height	Day	Evening	Night
M1_A		1.50	59.4	59.4	56.4
M2_A		1.50	61.6	61.6	58.6
M2_A		1.50	57.1	57.1	54.1
Rec A_A		1.50	54.7	54.7	51.7
Rec A_B		4.50	54.8	54.8	51.8
Rec B_A		1.50	54.5	54.5	51.5
Rec B_B		4.50	54.4	54.4	51.4
Rec C_A		1.50	53.1	53.1	50.0
Rec C_B		4.50	52.1	52.1	49.1
Rec D_A		1.50	59.9	59.9	56.9
Rec D_B		4.50	59.8	59.8	56.8
Rec E_A		1.50	52.4	52.4	49.4
Rec E_B		4.50	60.0	60.0	57.0

All shown dB values are A-weighted