NOVATECH
Engineers, Planners & Landscape Architects

M E M O R A N D U M

DATE: **NOVEMBER 29, 2024**

TO: **EVAN GARFINKEL, REGIONAL GROUP**

FROM: **TREVOR MCKAY**

RE: **GREYSTONE VILLAGE – FORECOURT TOWNHOMES**
295 & 355 DESCHATELETS AVENUE - OTTAWA, ONTARIO
NOISE CONTROL BRIEF
114025-FT-NC-MEMO.1

Further to your request and authorization, this memorandum has been prepared to summarize the findings of the previously completed noise control study for the Greystone Village subdivision (175 Main Street), and to confirm the applicability of the finding of this study to the current planning applications for two parcels of land within the Greystone Village subdivision limits (295 and 355 Deschatelets Avenue).

Background

As part of the Greystone Village Phase 2 & 3 Subdivision Application (D07-16-16-0001), a Noise Impact Assessment Report was completed. Refer to "*Greystone Village, 175 Main Street – Site Servicing, Stormwater Management, Noise, Erosion and Sediment Control Brief – Phase 2 and 3*" dated May 26, 2017, by Novatech Engineering. This study was completed in accordance with the City of Ottawa's Environmental Noise Control Guidelines (ENCG), January 2016, and was reviewed and approved by the City of Ottawa.

Results

The analysis of the roadway traffic along Main Street to the west and Highway 417 to the north of the proposed development indicates that the indoor sound levels for all buildings proposed within the 295 Deschatelets Avenue (Block 29) and 355 Deschatelets Avenue (Block 28) properties will not exceed the maximum allowable limits outlined in the City of Ottawa's Environmental Noise Control Guidelines and therefore noise attenuation measures will not be necessary for the Forecourt Townhomes project. Please refer to Table 7.4 and Figure 16 in the attached excerpts from the 2017 approved report.

We trust that this is sufficient to satisfy the requirements for a noise control study for the site plan control and zoning bylaw applications for the 295 and 355 Deschatelets Avenue properties.

Yours truly,

NOVATECH

Trevor McKay, P. Eng.

LICENSED PROFESSIONAL ENGINEER
T. J. MCKAY
100195434
November 29, 2023
PROVINCE OF ONTARIO

Attachments:
Excerpt - Pages 29-33 & Figure 16 from "Greystone Village, 175 Main Street – Site Servicing, Stormwater Management, Noise, Erosion and Sediment Control Brief – Phase 2 and 3" Report No. R-2017-089, dated May 26, 2017.

Suite 200, 240 Michael Cowpland Drive, Ottawa ON K2M 1P6 Tel: 613.254.9643 www.novatech-eng.com

6.4 Phase 2

The phase 2 which has approximately 273 units and includes the Grande Allée / Forecourt and the North Village will be serviced by the storm outlet #1 near Clegg Street as well as the storm outlet #2 near Springhurst Avenue, the sanitary outlet #1 at the end of Clegg Street as well as the sanitary outlet #2 at the end of Springhurst Avenue and by the watermain loop from Clegg Street to Main Street. The Grande Allée/Forecourt will drain through Phase 1a and therefore services will be through storm outlet #1, sanitary outlet #1 as well as the watermain loop from Clegg Street to Main Street.

6.5 Phase 3

The phase 3 which has approximately 372 proposed units (with 53 existing units within the Deschâtelets building) will be serviced by the storm outlet #2 near Springhurst Avenue, the sanitary outlet #2 at the end of Springhurst Avenue and by the watermain loop from Clegg Street to Main Street.

The building fronting on Main Street at the corner of Oblats Avenue can be completed concurrently with any of the phases above and will be serviced by the storm and sanitary sewers as well as watermain located on Main Street.

7.0 NOISE CONTROL

7.1 Introduction

For the purposes of this report, an assessment of the environmental impact of noise was considered for various locations within phase 1A and 1B, as well as phase 2 and 3.

7.2 Noise Sources

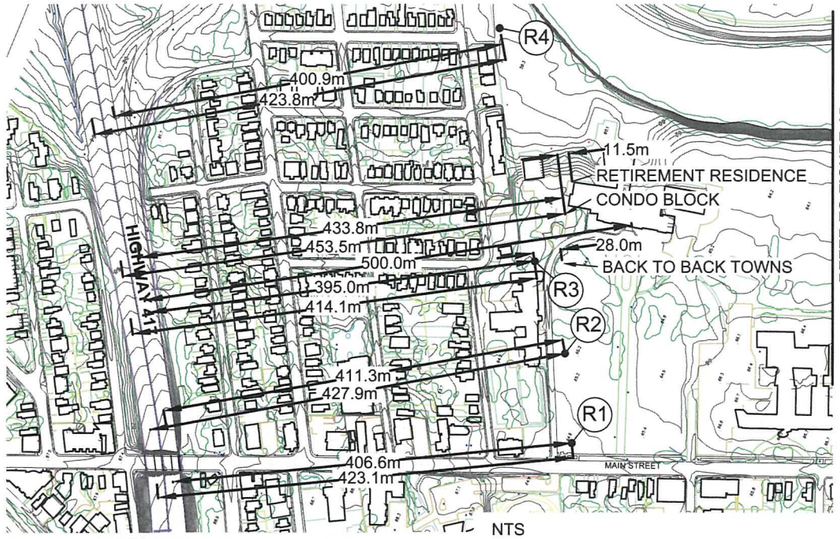
The City of Ottawa Official Plan stipulates that a noise study shall be prepared when a new development is proposed within distances as follows;

- 100 metres from the right-of-way of an arterial road, major collector road or bus Transitway
- 250 meters from the right-of-way of a highway, light rail transit corridor or a Secondary Main Railway line
- 500 meters from the right-of-way of a freeway or 400-series provincial highway or a Principle Main railway line

There are two potential surface road noise sources that are considered for phase 2 and 3 of the site: Main Street to the west and Highway 417 to the North, as all other roadways within the zone of influence were not arterial or major collector roadways. Main Street and Highway 417 will not be considered in a noise assessment for phase 1A and 1B as both potential noise sources are outside the zone of influence. A detailed noise analysis will be required for at site plan stage for the condo buildings along Main Street/Oblate Avenue, once the design details are finalized. See **Figure 16** – Noise Source Distance Plan and Receiver Location Plan for further details.

Main Street classification is based on the City of Ottawa's Official Plan. The current protected Right-of-Way (ROW) and classification of Main Street is a of 2-Lane Urban Arterial roadway (15,000 veh/day) with a protected ROW of 20.0m (24.0m fronting our site). The posted speed

FIGURE-417



REFER TO FIGURE-417

REFER TO FIGURE-15

LEGEND

PROPERTY LINE

REFER TO FIGURE-417

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NOVATECH
Engineers, Planners & Landscape Architects
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6
Telephone (613) 254-9643
Facsimile (613) 254-5867
Website www.novatech-eng.com

CITY OF OTTAWA
GREYSTONE VILLAGE
175 MAIN STREET

NOISE SOURCE DISTANCE PLAN
AND RECEIVER LOCATION PLAN

1:2000 0 20 40 60 80

MAY 2017 | 114025 | FIGURE 16

that will be considered in the analysis is 50kph. The Main Street roadway has been reconstructed as a 2-lane roadway with on-street parking as part of the Main Street redevelopment.

Highway 417 classification is based on the City of Ottawa's Environmental Noise Control Guidelines. Highway 417 is a six (6) lane Queensway highway with an AADT of 18,333 veh/lane/day. The posted speed that will be considered in the analysis is 100kph.

There is no railway within 250m that impacts this site.

There is no airport noise affecting this site.

7.3 Noise Level Analysis

The noise levels were analyzed using version 5.03 of the STAMSON computer program issued by the MOE. Noise levels were generated for a number of receiver locations as shown on **Figure 16** – Noise Source Distance Plan and Receiver Location Plan, using Main Street and Highway 417 traffic and roadway parameters. Proposed grades required by STAMSON were attained from grading plans and City of Ottawa topographic maps.

The residential condo immediately adjacent to Main Street will experience the highest sound levels due to its proximity to the noise source. Therefore, the analysis was initiated on the condo immediately beside Main Street to establish a baseline sound level exposure from which various noise attenuation strategies were investigated.

The traffic and roadway parameters used for sound level predictions are shown in Table 7.1.

Table 7.1: Traffic and Roadway Parameters

	Main Street Avenue	417 Queensway
Roadway Classification	2 Lane Urban Arterial-Undivided	6-Lane 400 Series Highway
Annual Average Daily Traffic (AADT)	15,000 vehicles/day	18,333 vehicles/lane/day
Day/Night Split (%)	92/8	92/8
Medium Trucks (%)	7	7
Heavy Trucks (%)	5	5
Posted Speed	50 km/hr	100 km/hr

7.4 Noise Level Criteria

The City of Ottawa is concerned with noise from aircraft, roads, transitways and railways as expressed in the City of Ottawa Official Plan (May 2003) since it can affect the quality of life of residents. To protect residents from unacceptable levels of noise, the City of Ottawa has specific environmental noise control guidelines, which are based on the technical guidelines and recommendations prepared by the Ontario Ministry of Environment. The City of Ottawa's Environmental Noise Control Guidelines (ENCG), January 2016 has been used for the purpose of this report.

The quantitative sound level criteria, which require that specific outdoor and indoor living areas of residential developments meet certain energy equivalent sound levels (Leq), are summarized in Table 7.2 and Table 7.3. Compliance with the outdoor sound level criteria will generally ensure compliance with the indoor sound level criteria.

Table 7.2: City of Ottawa Outdoor Noise Level Criteria (Road and/or Rail Noise)

Time Period	Receiver Location	Noise Level Criteria (Leq)
Daytime (07:00 – 23:00)	Outdoor Living Area (OLA)	55 dBA

The outdoor living area is defined as that part of an outdoor amenity area, which is provided for the quiet enjoyment of the outdoor environment during the daytime period. These amenity areas are typically backyards, gardens, terraces and patios.

Table 7.3: City of Ottawa Indoor Noise Level Criteria

Time Period	Receiver Location	Noise Level Criteria (Leq)
Daytime (07:00 – 23:00)	General offices, reception areas, retail stores, etc.	50 dBA
Daytime (07:00 – 23:00)	Living/Dining Rooms of residential dwelling units, theatres, places of worship, school, individual or semi-private offices, conference rooms, reading rooms, classrooms, etc	45 dBA
Nighttime (23:00 – 07:00)	Sleeping quarters of residential units, hospitals, nursing homes, senior citizen homes, etc	40 dBA

Noise attenuation requirements at an Outdoor Living Area (OLA) and a Plane of Window (POW) are outlined in Table 7.2 and 7.3.

7.5 Noise Level Results/Recommendations

The predicted noise levels at the selected receiver locations within the development are illustrated in Table 7.4. Daytime and nighttime noise levels are shown.

Table 7.4: Simulation Results

		Noise Levels Leq (dBA)	
Location	File/Receiver Name	Daytime	Night-time
Condo Building Main Street – 6th Floor	R1	67.99	60.39
Condo Building Oblats Avenue – 6th Floor	R2	52.62	44.97
Townhouse Dwelling Unit	R3	52.67	45.07
Single Dwelling Unit	R4	52.62	45.02

The 6 storey condo building along Oblate Avenue/Main Street (R1) exceeds the allowable noise level criteria for the indoor noise criteria. This condo building will require a detailed analysis and warning clauses at site plan stage when details are finalized. The following is a summary of the proposed attenuation measures that may be utilized in accordance with the City of Ottawa Noise Control Guidelines.

- Installation of a forced air ventilation system with provision for central air conditioning;
- Installation of central air conditioning;
- Custom building design, construction and/or acoustical insulation;
- Warning clause be registered on title.

The condo building located at the Oblats/Deschâtelets Ave. intersection (R2), the townhouse blocks (R3) and the single units (R4) all exceed the allowable indoor noise criteria specified in **Table 7.3.** As per section 2.2 of the City of Ottawa Noise Control Guidelines (2016), developments should be consistent with NPC-300 (MOE publication, 2013). As stated in section 7.1.2 and 7.1.3 of NPC-300, ventilation provisions and warning clauses are not required if the plane of window (daytime) noise level is below 55dBA and the plane of window (nighttime) sound level is below 50 dBA. Additionally, building components (such as windows, walls and doors) shall be designed so that the indoor sounds levels comply with the noise level criteria only when plane of window sound levels exceed 65 dBA for daytime and 60dBA for nighttime. Refer to **Appendix E** for excerpts from NCP-300. The Building Code construction requirements for building components (windows, walls, doors) exceed the minimum requirements to mitigate indoor noise levels. The Building Code required building components generally mitigate noise levels up to 65 dBA for daytime and 60dBA for nighttime.

All condo buildings north of the existing Deschâtelets building are further from the 417 noise source than Receiver R2. Therefore, noise levels are expected to be below R2 and no further mitigation is required, as stated above.

All condo buildings and site plans south of the existing Deschâtelets building are outside the 500m limit and are not subject to noise analysis.

Upon further review, all the 9 storey condo buildings behind St. Paul University fall outside the zone of influence mentioned in section 7.2, and therefore do not require a detailed noise analysis. See **Figure 16** – Noise Source Distance Plan & Receiver Location Plan for further details.

The noise attenuation measures mentioned above are based on detailed grading plans for all phases of the development.

8.0 COMMUNITY TRANSPORTATION STUDY

An analysis of the effect from the proposed Greystone Village Inc. Lands development on the existing traffic patterns has been performed and detailed in the report entitled: *175 Main Street – Greystone Village – Community Transportation Study by Novatech dated January 2015* and is submitted under a separate cover. Please refer to this report for more details.

Also, an additional Community Transportation Study Addendum was prepared in support of the Greystone Village Subdivision Phases 2/3. It addresses the increased site traffic generated by the revised Phase 3 development and the proposed widening of Scholastic Drive to accommodate two-way traffic between Oblates and Deschâtelets. It was submitted by email to both Erin, Wally and Josh by email on May 16, 2017.