



**DISTRICT OF WEST VANCOUVER**  
 750 17TH STREET, WEST VANCOUVER BC V7V 3T3

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## COUNCIL REPORT

Date:	September 28, 2017
From:	Sarah Almas, Manager, Bylaw & Licensing Services
Subject:	Cressey (Seaview) Development LLP (2289 Bellevue Ave) Request for Order of Non-Enforcement of the Noise Control Bylaw No. 4404, 2005
File:	1605-15

### RECOMMENDATION

THAT:

The request from Cressey (Seaview) Development LLP for an Order of Non-Enforcement of the Noise Control Bylaw No. 4404, 2005 Section 6.1.2.(a) to allow for construction noise between the hours of 7:00 a.m. and 8:00 p.m. for a maximum total of 35 days between October 16, 2017 and September 30, 2018 on any day that is not a Saturday, Sunday or holiday (as defined in the *Interpretation Act*) with the additional conditions contained in the report titled "Cressey (Seaview) Development LLP (2289 Bellevue Ave) Request for Order of Non-Enforcement of the Noise Control Bylaw No. 4404, 2005", dated September 28, 2017, be approved.

#### 1.0 Purpose

The purpose of this report is to present for Council consideration a request from Cressey (Seaview) Development LLP (the Applicant) for an Order of Non-Enforcement of the Noise Control Bylaw No. 4404, 2005 to allow the completion of the large concrete pours for the project on 2289 Bellevue Avenue for a maximum total of 35 days between October 16, 2017 and September 30, 2018.

#### 2.0 Bylaw

The Noise Control Bylaw No. 4404, 2005 regulates, prohibits and imposes requirements in relation to noise in the community.

As per the Noise Control Bylaw No. 4404, 2005, "Construction Noise" means:

*"any noises or sounds made on or associated with a construction site:*

- a) in carrying on work in connection with the construction, demolition, reconstruction, alteration, or repair of any building or structure,*

*b) in carrying on any excavation or other operation, or  
c) in moving or operating a machine, engine, or construction  
equipment."*

The Noise Control Bylaw No. 4404, 2005 restricts construction noise to the following hours:

1. Monday through Friday from 7:30 a.m. to 5:30 p.m.;
2. Saturday from 8:00 a.m. to 5:00 p.m.; and
3. No construction noise permitted on Sundays and holidays.

### **3.0 Background**

#### **3.1 Previous Decisions**

There are no previous Council decisions directly related to this request for an order of non-enforcement.

#### **3.2 History**

On February 28, 2017, the district issued a demolition permit and on May 30, 2017, the district issued an excavation/shoring/foundation permit for the site.

### **4.0 Analysis**

#### **4.1 Discussion**

Cressey (Seaview) Development LLP (the Applicant) is the primary contractor for the multi-family residential site on 2289 Bellevue Avenue.

The Applicant has submitted a Letter of Request (**Appendix A**) for an Order of Non-Enforcement of the Noise Control Bylaw to allow a variance to the construction noise hours as regulated in the bylaw. The request is made in order to accommodate large concrete pours in excess of 8,000 square feet.

The noise associated with the work as outlined in the Application involves vehicle noise as concrete trucks arrive and leave the site; use of concrete finishing equipment such as power trowels; and on rare occasion, noise from concrete trucks and equipment related to concrete placement.

Approximately 35 concrete pours will be required to complete the horizontal/suspended slab portions of the building structure (typically, vertical columns are poured in the following days after a slab is poured and they do not take as long, due to the concrete volumes being lower). The 35 large pours are scheduled to take place between October 17, 2017 and September 30, 2018.

The Applicant has proposed the following conditions:

1. Construction Noise will be limited to vehicle noise as trucks arrive and leave the site, the use of concrete finishing equipment for

concrete finishing work, and on rare occasions, truck and equipment noise related to concrete placement;

2. Construction Noise will not occur on Sundays or Holidays;
3. Construction Noise will not occur later than 8:00 p.m.; and
4. Construction on Saturdays will comply with the Noise Control Bylaw.

The Applicant has noted the building is designed using a combination of reinforcing steel, structural steel and post-tension cables and therefore, the design incorporates large concrete pours. The Applicant notes that the structure requires large concrete pours to a predetermined size as approved by the structural Engineer. The Applicant indicates that on large concrete pour days, at least 8 hours is required for concrete placement and approximately 2 hours for the concrete to cure before concrete finishing work can be completed.

The Applicant indicates the following activities would take place if Council approves the Application:

- the concrete pump truck arrives on site no earlier than 7:00 a.m.;
- concrete trucks arrive on site no earlier than 7:00 a.m.;
- concrete placement takes place no earlier than 7:30 a.m. until approximately 5:00 p.m.;
- concrete finishing begins in the areas poured first, concrete cures for approximately two hours depending on the weather;
- concrete placed at 5:00 p.m. would cure for approximately two hours; and
- concrete finishing would continue as areas cure until no later than 8:00 p.m.

The District has previously considered and approved a similar application for large concrete pours, and an independent industry expert was consulted for that application. That expert concluded that due to the nature of post tension concrete construction, it has been industry practice to minimize the number of pours it takes to place a post tensioned slab. Post tensioned slabs can be broken up into sections which are then divided by gaps in the concrete called delay strips. These gaps provide access to ends of the cables for tensioning and are in-filled following this. The delay strips are an integral part of the structural design, and as such, any changes to the location or number of delay strips would require re-design.

The standard within structural design and industry practice indicates post tension pours cannot be interrupted once they begin without detrimental impact. Should a post tension slab pour be interrupted, for any reason, the portion of the slab that was poured would most likely need to be removed

once cured. This would require jack hammering/cutting and could lead to delays on site and additional impact on the neighbourhood.

The following projects are examples of similar projects in the Lower Mainland:

1. 980 Howe Street, Vancouver

The project consisted of similar pour sizes to the larger pours proposed by the Applicant. The pours typically took up to 12 hours including finishing. This is comparable to the timing proposed by the Applicant. A noise bylaw variance was required and approved for 980 Howe to allow the construction team to complete the pours in a single effort.

2. Anvil Centre and Office Tower, New Westminster

The project consisted of similar pour sizes and post tension with the Office Tower. The Anvil Centre and Office Tower was adjacent to a residential building. A noise bylaw variance was required and approved for the Anvil Centre to allow the construction team to complete the pours in a single effort.

3. Grosvenor Ambleside, West Vancouver

The project consisted of similar pour sizes and post tension structure design. A noise bylaw variance was required and approved for the Grosvenor Ambleside project to allow the construction team to complete the pours in a single effort.

Staff have reviewed the request and notes that the Applicant appears to be making efforts to mitigate the impact on the local community. These efforts include the division of the slabs into a number of smaller pours, and limiting their request for extended hours to weekdays only. Staff believe, subject to the recommended conditions below, that the application is reasonable in the circumstances, and consistent with the approach taken by other municipalities for large concrete pours. Some municipalities' bylaws simply allow concrete pours up until 8:00 p.m.

A more permissive exemption of the bylaw (which is not recommended) would allow construction noise up to a level of 80dBA. Staff have considered this option and do not recommend a more permissive exemption for two primary reasons:

1. An exemption allowing up to 80dBA should not be required in order to complete the proposed concrete finishing work;
2. An exemption allowing noise up to 80dBA outside of the permitted hours would increase the impact to residents and businesses in the area.

Staff recommend restricting construction noise levels during the extended hours of 7:00 a.m. to 7:30 a.m. and 5:30 p.m. to 8:00 p.m. Monday – Friday to 65 dBA. The 65 dBA limit is relevant because 65 dBA is a limit

for night-time noise as per the Noise Control Bylaw. As stated above, construction on Saturdays will comply with the Noise Control Bylaw, and no Construction Noise will be allowed on Sundays or holidays.

#### Recommended Conditions

Staff have reviewed the application and requested terms, and recommend that Council approve the Order of Non-Enforcement of the Noise Control Bylaw on the following terms:

1. Extended hours permitted on a maximum total of 35 days between October 17, 2017 and September 30, 2017;
2. Of those 35 days, there can be no more than 5 extended hour days per month;
3. Extended hours permitted between 7:00 a.m. to 7:30 a.m. and 5:30 p.m. to 8:00 p.m. Monday through Friday only, excluding holidays;
4. Construction noise levels during the extended hours are limited to a maximum of 65 dBA;
5. The Applicant must provide a monitor onsite during the extended hours to ensure the contractor is adhering to the above conditions and will be the primary contact with District staff and members of the public; and
6. The Applicant will provide the District with 72 hours notice of large pours.

#### 4.2 Public Engagement and Outreach

If Council approves the Order of Non-Enforcement, a letter will be delivered to residents and businesses in the area to inform them of the Order of Non-Enforcement.

#### 4.3 Other Communication, Consultation, and Research

In review of the Application, the Permits & Inspections and Bylaw & Licensing Services staff have consulted with staff from Community Relations and Development Engineering.

### **5.0 Options**

#### 5.1 Recommended Option

Council approve the Order of Non-Enforcement as proposed by staff.

#### 5.2 Considered Options

Council may approve the Order of Non-Enforcement on other terms; or  
Council may not approve the Order of Non-Enforcement.

## 6.0 Conclusion

After internal staff review and adding the additional recommended conditions, staff believe that the application is reasonable in the circumstances, and consistent with the approach taken by other municipalities. Accordingly, staff recommend approving the application as recommended in this report. Staff will continue to monitor the project on an ongoing basis. Staff, including the Manager of Community Relations, will also continue to liaise with the Applicant, and residents in the surrounding neighbourhood.

Author:

  
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Sarah Almas, Manager, Bylaw &  
Licensing Services

Concurrence

  
\_\_\_\_\_  
Kevin Spooner, Manager, Permits &  
Inspections

Appendices:

Appendix A: Request for Order of Non-Enforcement



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**To: Chris Bishop**  
Manager of Land Development

**District of West Vancouver**  
750 17<sup>th</sup> Street,  
West Vancouver, B.C. V7V 3T3

**From: Matthew Burchill**  
Project Manager  
**Cressey (Seaview) Development LLP**  
#200-555 West. 8th Avenue,  
Vancouver, B.C. V5Z 1C6  
(Business License # 00211694)

**CC: District Council**

**Date:** August 2, 2017

**Re:** 'Bellevue' - 2289 Bellevue Avenue, West Vancouver,  
Building Permit # BP115017  
Request for Order of Non-Enforcement of the Noise Control Bylaw No. 4404, 2005

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Chris,

Please accept this letter as a formal request for non-enforcement of the noise control bylaw during the 'concrete/structure' phase of the above-mentioned project. Please refer to the below details supporting our request:

**Duration of Non-Enforcement:** October 17th, 2017 - September 30th, 2018.

**Details During Non-Enforcement Duration:**

- **Approximate Number of Concrete Pours:** 35 pours required to complete the horizontal/suspended slab portions of the building structure (Parkade and Tower).
- **Approximate Area of Concrete Pours:** Excess of 8,000 Sq. Ft.
- **Approximate Duration of Concrete Pours:** 10 – 12 Hours (Pumping and Finishing).
- **Days of the Week of Concrete Pours:** Monday – Friday (7am – 8pm).  
\*Tower suspended slab pours will occur on a weekly 5 day cycle (same day every week).
- **Equipment Used During Concrete Pours:** Concrete Supply Trucks, Concrete Pump Truck, Tower Crane and Power Trowels.

**Description of Work Being Completed:** Concrete will be pumped from a Concrete Pump Truck located on Bellevue Avenue and placed onto the formed suspended floor decks by placing crew. Power Trowels will be used to provide finish to the semi-cured concrete slabs.

**Reasons Why the Non-Enforcement Should be Issued:** This building is designed using a combination of reinforcing steel, structural steel and post-tension cables. In turn, this type of structural design necessitates long concrete pours. The pours must be done to a predetermined size as approved by the Structural Engineer.

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Additionally, a typical tower suspended slab is poured in one duration with the amount of concrete required to be placed in these pours totaling +/- 500 cubic meters (M3). Generally, our goal is to pour and place up to 50 meters of concrete per hour, which equates to a minimum of 8 hours of concrete placing - assuming there are no issues. Upon the concrete being placed, there is a curing time of roughly 2 hours prior to the finishing sequence occurring (weather dependent however additives can be included within concrete mix to expedite curing time). We do not wait for the entire suspended slab area to be placed and cured before we begin to finish it. We begin the finishing sequence on the area that was poured first.

If we start to place the concrete at 8:00 am, (assuming we are able to set up the pumps at 7:00 am) and it takes 8-9 hours to pump and place the concrete, we would be finished around 5:00pm. The placed concrete would then have to cure for 2 hours before the finishing occurs. This takes us to 7:00pm and gives us 1 hour to complete. This is why we are asking for an exception until 8:00 pm on the large concrete pour days

**Additional Items to Consider for Approval of Non Enforcement:** Placing large volume concrete pours has some additional risks that must be accounted for. These include but are not limited to:

- **Concrete Supply:** the supply is very important as we need to ensure continuous concrete is supplied to the pump trucks. If there is an accident within the trucking route causing excess traffic, the concrete trucks would be delayed getting to site in turn delaying the concrete pumping and placement.
- **Breakdowns/Failures at the Concrete Supply Plants:** Unfortunately mechanical and/or equipment breakdowns/failures within the supply plants do occur. When they do, the concrete supplier is forced to deliver the concrete from a different supply plant. The concrete supply plant for this project is located in North Vancouver so should a breakdown occur we would be receiving concrete from another municipality (Vancouver, Surrey or Richmond).
- **Mechanical Break Downs with Pumps Trucks:** We always ensure the pump trucks are fully maintained and lines cleaned but break downs do occur. When a breakdown does occur, the concrete pumping and placement is stopped until the pump truck is repaired or a new one is brought to site.
- **Weather:** When the weather is cooler or humidity is high, it can delay the concrete curing time. Although we do try and counteract this by inserting additives within the concrete mixes to expedite curing time, this will still impact the time when the finishing crews can access the slab to finish it. This is something we cannot control.
- **Slab Removal:** If we are in the midst of completing a large pour and are potentially forced to stop or are delayed in the pouring sequence due to some unpredictable problem and can't complete the pour prior to 5:30 pm, the concrete slab could possibly have to be jack hammered out, causing a much significant noise impact on the community – not to mention a delay to the overall schedule.



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**Additional Questions/Clarifications:**

- **Can the Slabs be Reduced in Size to Accommodate Smaller Pours:** The pour breaks for the parkade slabs have already been reduced in size to accommodate a daily pour duration as described above. Any further reduction to the pour breaks would result in a redesign by the Structural Engineer as well as lead to additional concrete pour days resulting in a delay to the overall schedule. With regards to the tower suspended slabs, there is no alternative to reduce the slab/pour areas as these suspended slabs/floorplates are completed in one continuous pour. This is critical to the weekly cycle (horizontals and verticals) and overall completion date of the concrete/structure schedule.
- **Can an Additional Pump be Used to Place the Concrete:** Unfortunately our site conditions do not accommodate the use of an additional pump truck. Further lane closures surrounding the site would be required which would in turn disrupt our neighbours and the general public. In addition to this, the design of the typical floor plates do not lend themselves to requiring a second pump.
- **Noise Expectations:** Our plan is to have all of the concrete pumped and placed between the hours of 7:30am and 5:30 pm. Considering this, the only noise outside of standard bylaw hours, would be from a power trowel resembling the noise level of a lawn mower. On rare occasions where a problem has occurred during the daily pour and a delay was incurred, the noise activity would include a concrete vibrator and perhaps the engines from the concrete supply and pump trucks. The noise level of the trucks would resemble a typical truck idling.

I trust that the above information meets your requirements, however you should have any additional questions or require any further information, please don't hesitate to contact me.

Regards,

CRESSEY (SEAVIEW) DEVELOPMENT LIMITED LIABILITY PARTNERSHIP



Matthew Burchill  
Project Manager

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