

From: cchien

Sent: Monday, October 25, 2021 11:58 AM

To: Clement Chong [clement.chong@richmondhill.ca](mailto:clement.chong@richmondhill.ca); Clerks Richmondhill [clerks@richmondhill.ca](mailto:clerks@richmondhill.ca); 'Stop Subway Option 3'; 'Keith Markham Councillor' [Klrish@markham.ca](mailto:Klrish@markham.ca) ; 'Roz Fitzpatrick'; 'Naama Zukier'; 'Dale Reid'; 'Peter Palframan'; Tim King

Subject: FW: please consider for your virtual even on Oct 28th, 2021 - transportation planning in-opposition to the North York Subway Expansion, Option #3

Dear Sir/Madam:

Please find attached Dr. Gerald Elliot Goldberg's submissions to my request for information about the potential harm caused by noise and vibration that could be anticipated, if a subway were to be tunneled and operated under a residential neighbourhood. As you are aware, Metrolinx has proposed that the Yonge Subway Expansion veer eastward off Yonge, through and under the Royal Orchard neighbourhood, to come up, above ground along, under or beside the CN corridor (my backyard), to not one, but TWO above ground subway stations around Highways 407 and 7.

Dr. Goldberg (B. Sc., MA, Ph.D., Registered Psychologist (Retired Status), Ontario College of Psychologists (Cert. No. 1794, ) and his wife Kim have lived in the Royal Orchard neighbourhood since the mid 1980's. They raised four children and Dr. Goldberg was a volunteer coach, for children's soccer, Beavers, Cubs and Scouts, for many years. His children attended Bay Thorn Public School when they were young.

Since 1989 , Dr. Goldberg has been an adjunct professor at York University teaching health and psychology courses. Dr. Goldberg is a published expert in psychological stress. He is a course director at York University and a Psychologist with Goldberg and Ankers Consulting.

This paper has been provided to the York Region Catholic School Board, since Metrolinx is proposing to tunnel 90 metres of distance, approximately 15 metres under St. Anthony's school. A recent presentation by Metrolinx suggests that there will not be just one tunnel, but two, right through the heart of the school. I expect that Bay Thorn Public School will also be receiving a copy of Dr. Goldberg's paper. That public school may also be affected by the construction and operation of a subway.

The current subway route proposed by Metrolinx to veer off Yonge and travel underground through the Royal Orchard neighbourhood, only to come to the surface along, beside or near the CN corridor, is very disturbing to many. I have written to your council, as well as every Councillor in Markham, the mayor of Toronto, the Premier of Ontario and various Ministers that should be concerned about this route. I have written to candidates for all political parties at both the provincial and federal level. I have

written to the Federal Ministers of the Environment, Health and Finance. I have written to the Prime Minister's office. I am constantly writing to Metrolinx and asking for information.

Metrolinx suddenly decided to have their own virtual meeting, on the same time as your published event. I cannot be in two virtual meetings at one time. I had most recently written to them in September and October, with very specific questions. I have yet to receive a full reply. I have never received any reply when I first began asking them question in April, 2021. They are not transparent, they are not forth coming and they are not informative. The secrecy and deception seem to plague all of their current projects. Someone should hold Metrolinx accountable.

Elected officials from Markham City council voted 11-2 (including the major), to oppose this route (referred to as Option 3). Vaughan council also rejected Option 3. Both Markham and Vaughan, as I understand it, support Option 1. Option 1 was the original plan to run the subway from Finch to York Region, under Yonge Street. Just about everyone in our community also supports that route. It had been planned for years and had met environmental scrutiny and did not require anyone to have a subway running under their homes, schools, or green spaces.

Metrolinx keeps telling anyone who asks that the impact of hundreds of subway trains per day, under a living community will be practically NIL. If that is truly the case, why can't they tunnel under the Holy Cross cemetery? If there would be no serious harm to people, how could there be any serious harm, whatsoever, to dead people? If they are only going around Royal Orchard to placate the "sensitivities" of the Catholic Church, why does their property have more rights than taxpayers who actually live here and have contributed to the community for years? Why does Royal Orchard have to be sacrificed to mostly serve the future needs of other York Region Municipalities?

Richmond Hill residents will not be completely spared. There will be construction yards for initial prep work and then construction for years to come. There will be rail yards for maintenance and traffic and congestion that is only to be imagined at a time when the Yonge/407/7 area is just coming out of a costly and lengthy re-construction. Why can't the Yonge subway stay underground, under Yonge? Isn't that what a subway is?

Metrolinx has been given vast authority that threatens the rights and lives of private property owners and tax payers. Holy Cross should not have been given a VETO while living and breathing families are being ignored. I am requesting that this council also reject Option #3. It is deeply flawed, with so many unknowns that there is bound to be danger to the health and safety of all of us. I can foresee it running over budget and over time. The Eglinton LRT, Union Station, and other Metrolinx projects are prime examples of some of the problems with Metrolinx plans.

Please take into consideration the serious impact that only two aspects of this project will have on our children: chronic noise and vibration do cause health and safety issues.

This proposed route, Option #3 is so unnecessary. There is a viable and less harmful route. Please, restore the subway expansion back under Yonge Street.

Sincerely,

Carolyn MacDonald  
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### ***The impact of 390? trains per day under a community:***

Vibration and Noise: Not just an annoyance but a health and safety risk

Gerry Goldberg Ph.D., C.Psych

There is reliably confirmed evidence that even minimal levels of chronic vibration and noise can result in physical and mental harm, especially to children. To this point Metrolinx has stated that the vibrations will be “minimal” without providing details or specifics. Our community need to understand the levels of risk that is being imposed upon us. Given the potential risks, the Royal Orchard community requests the following information from Metrolinx.

- A precise understanding of the expected levels of vibration associated with operation of the subway under the Royal Orchard community.
- What empirical evidence exists to support that these will be the expected levels.
- Are there urban, residential, or environmental standards in Ontario regarding whole body vibrations of the nature created by a subway running under an established community?
- Do these guidelines attend to the chronic and non-continuous nature of the vibration that will result from a subway running under an established community? If so, by whom are they accepted?
- What measurement techniques of vibration have been used and will be used to ensure appropriate community health and safety standards?
- Why was this/these technique(s) used over other techniques?

### **Whole-body Vibration and Noise as a Health Risk**

Vibration and noise not only impact our emotions, and but several biological reflexes that are meant to protect us from harms when confronted dangers (e.g., approach of predators, stampedes, earthquakes, volcanic eruptions). Even minimal levels of sound and vibration can evoke several biological reflexes. In chronic situations these reactions meant to protect us can harm us. Further, they contribute to the **stress response** which is also triggered by vibration and noise. All this contribute to a lengthy list of harms caused by vibration and noise.

Below is a partial list of these harms found in published scientific studies in reputable journals.

- psychological (anxiety, ADHD, etc.)
- cardiovascular
- gastrointestinal
- neurological
- fetal abnormalities
- increase heart rate

- hyperventilation
- headache
- loss of balance
- motion sickness
- muscle fatigue
- discomfort
- impaired motor performance, speech, vision, difficulties reading
- cognitive functions
- low back pain, degeneration of the spine and discs
- female reproductive organ issues (menstrual disturbances, anomalies of position)
- disturbances of pregnancy (abortions, stillbirths, and harms to the fetus)
- hearing loss
- musculoskeletal pain in the neck, hands, shoulders, and hips.
- may also contribute to the development of peripheral and cardiovascular disorders, gastrointestinal problems certain cancers

### **Concerns Regarding Children**

Studies have found increased behavioural problems such as emotional symptoms, conduct problems, hyperactivity, especially within vulnerable or sensitive children. More significantly there are irreversible negative consequences regarding cognitive functions. These include central processing functions such as, language comprehension, deficits in sustained attention, visual attention, poorer auditory discrimination and speech perception, poorer memory on tasks requiring high processing and poorer reading ability. These have been found to produce lowered school performance on national standardized tests.

### **Comment:**

Exposure to the vibrations and possible noise of approximately 390 trains per day would impact many intimate or personal moments within the Royal Orchard community. Examples include, a new mother breast-feeding a child (The mother tries to relax but the vibration results in tension, the baby reacts to this tension, cries, and withdraws.) A young student with ADHD tries to study but is distracted by vibrations. A child put down to sleep but feels the “monster under the bed”. The wellbeing of any community depends on the quality of such moments.