

Noise and Vibration - Key Findings



Noise

- The Noise and Vibration Assessment Area is comprised of the Project Footprint plus an additional 500 metres from the perimeter of the Project Footprint.
- The acoustical environment in the Assessment Area is dominated by road traffic noise from Highway 401 to the south, Highway 418 in Clarington, major roadways, stationary noise sources and the existing Canadian Pacific (CP) Railway corridor.
- The Project has the potential to result in noise effects at nearby sensitive receptors* during construction activities such as heavy equipment operation.
- Mitigation to reduce operational noise generated by future rail activities located at 80 and 84 Aspen Springs Drive, Clarington is not feasible as these receptors are high-rise buildings.
- Potential for exceedances will be addressed by implementing appropriate mitigation measures and through development and implementation of a plan to manage construction noise before it begins.

Vibration

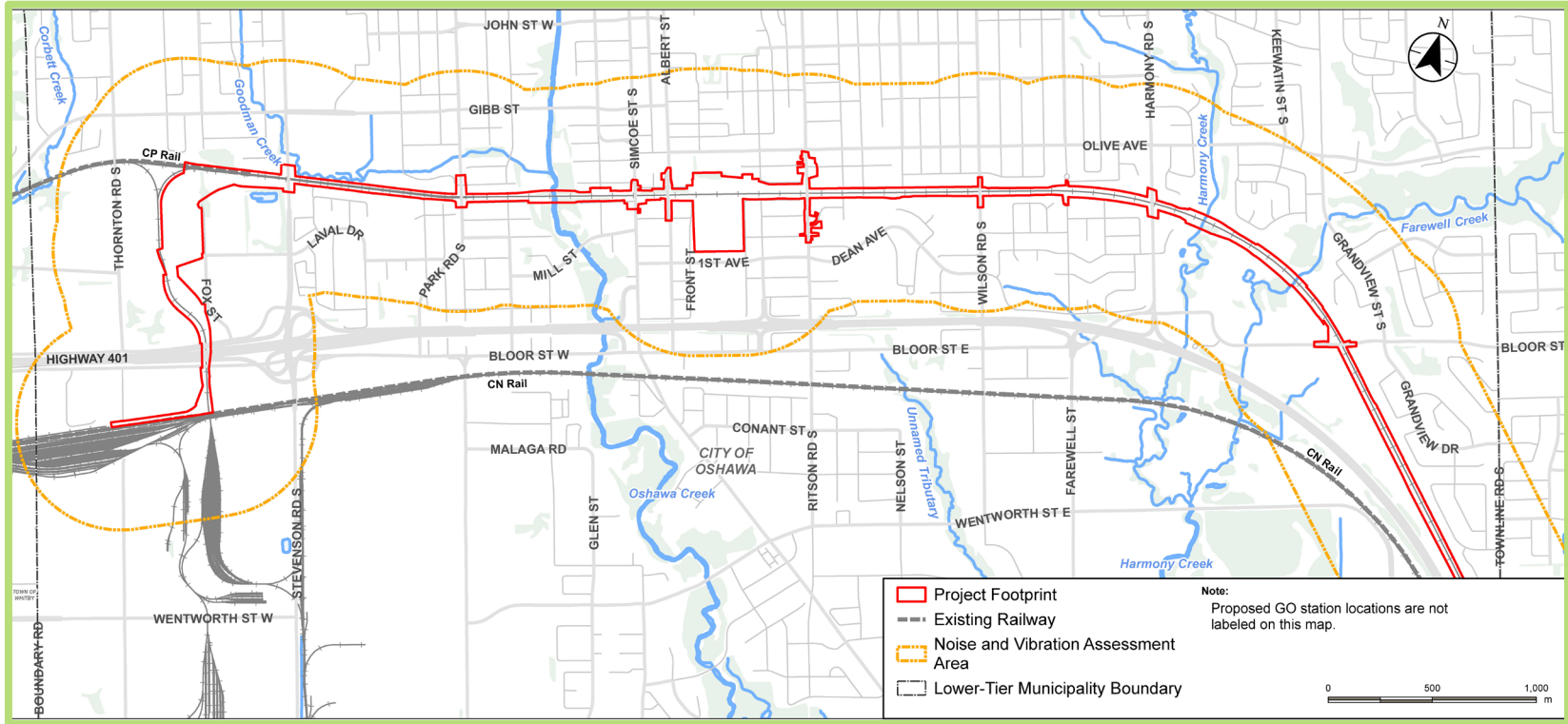
- Sources of vibration in the Assessment Area include commercial and industrial activities, road traffic and passing freight trains.
- The Project has the potential to result in vibration effects during construction activities such as heavy equipment operation.



*A sensitive receptor is a building in which a person resides on a permanent or semi-permanent basis, such as a house or an apartment. A critical receptor is a location where sensitive populations reside or spend a significant amount of time daily, such as schools, retirement homes, hospitals, or day cares.

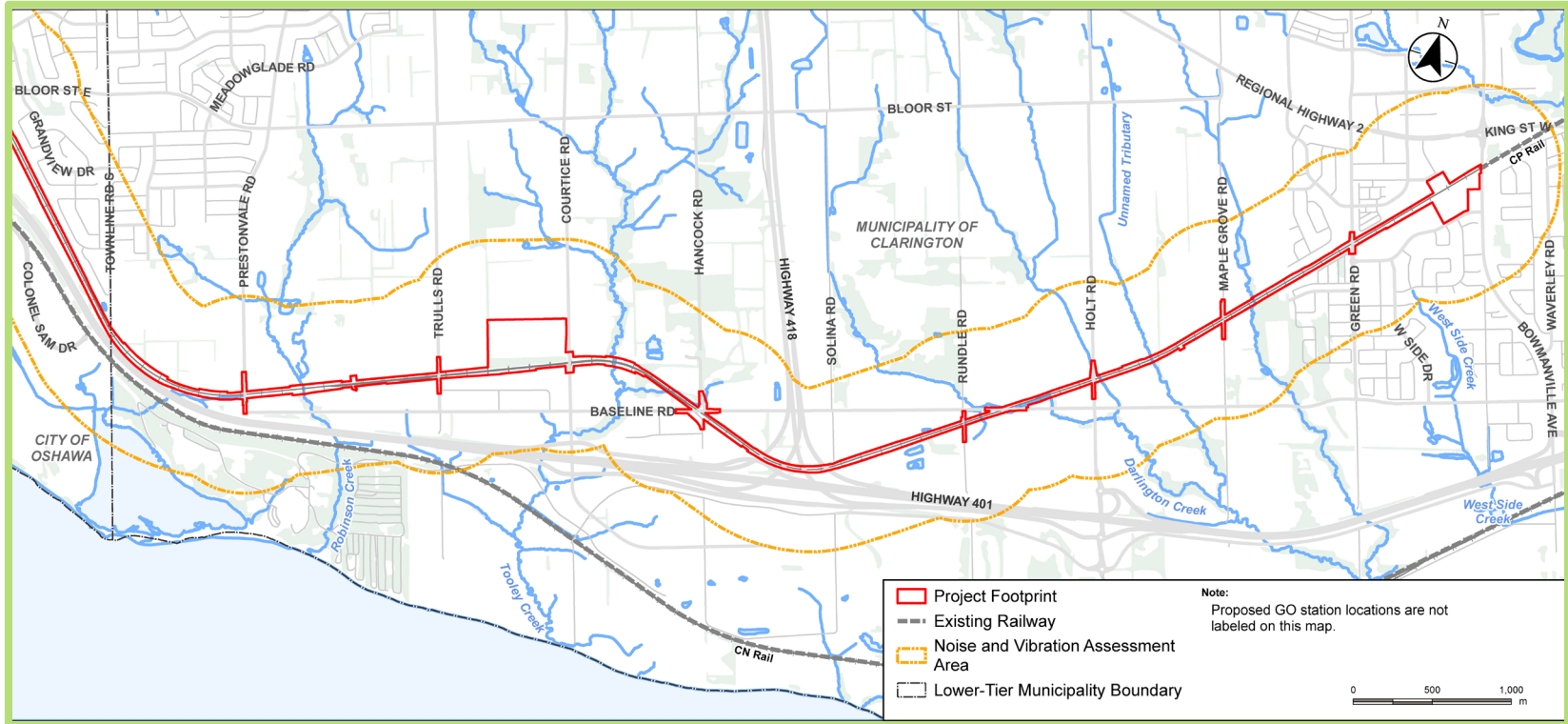
Oshawa to Bowmanville Rail Service Extension

Noise and Vibration - City of Oshawa Assessment Area



Oshawa to Bowmanville Rail Service Extension

Noise and Vibration - Municipality of Clarington Assessment Area



Noise – Potential Effects & Mitigation Measures



Project's Potential Noise Effects:

- Construction and operational noise may cause disturbance and/or annoyance.

Mitigation Measures:

- A Construction Noise Management Plan will be developed prior to construction.
- Nearby sensitive receptors will be notified of construction activities anticipated to create noise disturbance prior to commencement of the activities.
- Noise emissions of the construction equipment should be within the MECP* NPC* -115 and NPC-118 limits.
 - NPC-115 applies for construction equipment such as bulldozers, backhoes, loaders, etc. which usually have a maximum noise level from 83-85 decibels A (dBA).
 - NPC-118 applies for heavy vehicles with diesel engines and/or that weigh more than 4,500 kg and usually have a maximum noise level of 95 to 100 dBA.
- Noise control options, such as silencers/mufflers for specific equipment and noise shrouds for piling should be considered during construction.
- Temporary noise barriers for construction hoarding should be considered when the minimum setback distances cannot be maintained.
- GO trains are expected to stop and/or move at a reduced speed near/ at proposed GO stations during operations. At the proposed Thornton's Corners East GO Station, the curved portion of the track could be susceptible to wheel squeal, however the use of rail lubrication in accordance with Metrolinx standards would reduce the noise.
- Noise barriers are recommended along various portions of the rail corridor and in proximity to proposed GO stations.
- Locomotives should be positioned at the east end of the future tracks at the proposed Bowmanville GO Station.

Vibration - Potential Effects & Mitigation Measures



Project's Potential Vibration Effects:

- Exposure to vibration may cause disturbance and/or annoyance.
- Noise and vibration associated with construction activities may occur on evenings and weekends.
- Vibration may cause damage to buildings, utilities and other structures during construction.



Mitigation Measures:

- A Construction Vibration Management Plan will be developed. It will indicate structures where continuous vibration monitoring is required.
- The owners of properties within the Zone of Influence* will be notified in advance of construction activities.
- Construction planning such as maintaining setback distance and switching to less impactful equipment are recommended.
- Ballast mats or other feasible mitigation measures will be explored to mitigate effects from vibration during operations.

Oshawa to Bowmanville Rail Service Extension

Thank You for Attending!

We appreciate the time you have taken to learn about the EPR Addendum, and we value your opinions. Please provide input online from **June 8 to June 21, 2023** via slido or by emailing DurhamRegion@metrolinx.com.

Let us know if you have questions or comments regarding:

- Project Assessment Area
- Existing conditions or potential environmental effects
- EPR Addendum and TPAP process
- A Notice of EPR Addendum is anticipated to be issued in Fall of 2023 where:
 - Final EPR Addendum and supporting technical documents will be made available for a 30-day review period
 - Following 30-day public review period, the Minister of Environment, Conservation and Parks (MECP) has 35 days to review
 - MECP will issue a notice allowing the proposed Project to proceed or a notice requiring further work to address concerns
 - Statement of Completion will be posted on the Metrolinx website

Stay involved with the Bowmanville Extension by reaching out to the Durham Community Engagement Team below:

- Email us at DurhamRegion@metrolinx.com
- Call us at (416) 202-3900
- Visit our website www.metrolinx.com/bowmanville

Oshawa to Bowmanville Rail Service Extension

