

REM DE L'EST
FACT SHEET

Disturbances during construction and operations



*REM de l'Est construction and operation will be governed by a
regulatory framework*

with requirements established by the Government of Québec, once the project's environmental impact study is complete.

This regulatory framework is included in the Order in Council authorizing the project, and is also governed by the environmental authorization certificate issued by Québec's Ministère de l'Environnement et de la Lutte contre les changements climatiques (MELCC)



DISTURBANCES DURING CONSTRUCTION

Construction work will likely generate noise, vibrations and dust. Traffic pattern disruptions should also be expected.

The primary objective will be to **minimize the impact the work has on the neighbourhood**. To achieve this, models will be created to **predict noise and vibration levels**, compare those to the thresholds to which the project is subject, and then plan mitigation measures according to the type of work and sensitivity of the sectors affected, as needed. Monitoring will also take place during construction to adjust work methods as needed.

As for noise and air quality, measuring stations will be installed in sensitive sectors and environmental experts will take ad-hoc measurements at the start of each new work phase. Seismographs will be used to continuously measure vibrations and adjust work methods as necessary to ensure the integrity of surrounding sensitive structures.

Special attention will also be paid to **maintaining traffic flow** during the construction period, as the route runs on busy roads. Access to businesses and services will be maintained. Alternative routes may be proposed, depending on work phase.

There is a wide range of potential mitigation measures. The specific context of each area will determine the measures to be taken. Here are some examples:

- Work methods that minimize noise at the source
- Equipping machinery with silencers and trucks with white noise backup alarms
- Installation of temporary acoustic barriers
- Using dust suppressants to control dust and prevent it from propagating
- Coordinating traffic disruptions with the appropriate authorities, including the Ville de Montréal, the boroughs and the *Ministère des Transports du Québec*
- Continuously raising workers' awareness
- A rigorous complaint management procedure

DISTURBANCES DURING OPERATION

Noise will be generated from two main sources: car transit and fixed infrastructure. The electric automated light rail system is, at its very basis, quieter than that of heavy trains. Its 100% electric motorization, the absence of whistles or alarms for level crossings, its limited number of cars - two for the REM de l'Est - among other things, limit noise at the source.

The Order in Council for the project will set the noise thresholds to which the REM de l'Est will be subject. Source mitigation measures will be provided to minimize car noise, such as welded rails or specially designed equipment to avoid squealing noise on curves.

To evaluate anticipated noise from the REM de l'Est, the models will take into consideration:

Car transit frequency

Car speed

Structure elevation

Route curves

various operating scenarios

The current situation will also be taken into account, such as ambient noise, road traffic, topography, proximity of residential and other sensitive areas, etc.

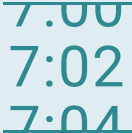





In-depth sound modelling will be performed to determine whether additional measures should be proposed. The purpose of the modelling will be to evaluate the existing soundscape (without the REM de l'Est) and to model the anticipated soundscape after the project is complete, to determine whether there is a significant difference between the two.

Where appropriate, additional mitigation measures, such as noise barrier walls will be installed in locations where significant impacts are anticipated. These mitigation measures will be installed as close as possible to the rails to minimize noise at the source and prevent it from propagating.

The mitigation measures will therefore be taken into account during the project design phase, and will be implemented during the construction period, prior to commissioning.

Monitoring will also take place during the operating period to adjust work methods as needed. Adjustments will be implemented if monitoring data shows additional significant impacts. A preventive maintenance program for rolling stock will also be provided.

For vibrations, modelling will primarily be based on :

		
Car transit frequency	Car speed	Type of rolling stock selected
		
Type of rails and supports	Exact rail configuration	Condition of infrastructure foundations along the route

Similarly, vibrations during the operating phase will be subject to strict requirements.

Modelling will be carried out along the entire route and measures will be implemented at the source if sensitive infrastructures are impacted.

These measures could include, for example, insulating the rail foundation or slab on which the rails are laid with layers of rubber.



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