

CABRAMATTA LOOP PROJECT

NOISE AND VIBRATION FACT SHEET

The Cabramatta Loop Project will increase rail freight capacity on the Southern Sydney Freight Line by allowing freight trains travelling in either direction to pass each other. The project involves construction of a 1.65 kilometre long section of new track adjacent to the existing track and other works, including new bridges and changes to Broomfield Street in Cabramatta.

These construction activities will involve some noise and vibration. This fact sheet explains what is being done to help reduce and manage potential noise and vibration impacts.



What is noise?

Noise is perceived differently from one person to the next and is measured on a scale of units called decibels. We assess noise by averaging the quietest and loudest (actual or predicted) measurements while also considering how the human ear perceives it.

Construction noise is temporary and often changes as construction changes and work progresses. It also varies with distance from the source. Some activities can be particularly intrusive, including jackhammering, concrete cutting, and other activities with a high-noise impact – greater than 75 decibels (dBA). Additional mitigation will be provided for these types of activities as described on the next page.

What is vibration?

Vibration is the shaking sensation that can be caused by some construction. As is the case with noise, it can have varied impacts on people as everyone has different levels of tolerance and sensitivity. Buildings are constructed to withstand a certain level of vibration. People can be sensitive to vibration and can detect vibration levels that are well below the threshold for any risk of damage to buildings.

What causes noise and vibration during construction?

Construction activities that have the potential to generate noise or vibration include the following works (with indicative noise levels). Generally, the further away a person or building is from the noise source, the lower the impact will be. These works may take place outside standard construction hours, to ensure the safety of workers and the public or to avoid traffic and transport disruptions:

- Utility relocations – between 44 and 90 dBA
- Track construction and installation – between 53 and 82 dBA

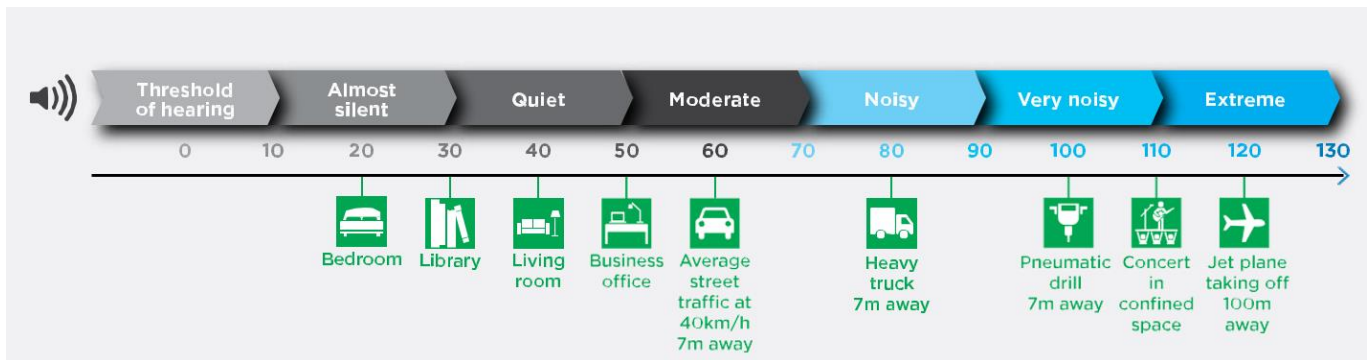
- Stormwater construction – between 44 and 90 dBA
- Excavation and demolition activities – between 44 and 90 dBA
- Concrete works – between 44 and 90 dBA
- Road pavement works – between 44 and 90 dBA
- Bridge construction works – between 44 and 79 dBA
- Geotechnical investigations – between 62 and 77 dBA
- Foundation and earthworks – between 44 and 90 dBA.

How we assess construction noise and vibration impact

Potential impacts from construction noise and vibration are considered during project planning and assessment. We carry out background noise measurements and prepare impact assessments that consider the distance from the work area to sensitive receivers. Noise levels are also monitored and reviewed during works, as required.

Where noise can impact nearby receivers, we actively seek mitigation measures to reduce noise and vibration impacts and aim to consult and notify potentially affected people.

The diagram below describes typical noise levels from day-to-day activities, as well as some construction activities. The noise levels are described in decibels (dBA).



How we manage construction noise and vibration

Strategies to minimise the vibration of construction activities are considered during construction planning. We have prepared a Noise and Vibration Management Plan to outline how we will work to reduce construction noise and vibration. It includes:

- Identification of potentially impacted stakeholders (residential and business)
- An outline of all construction noise conditions and requirements
- Details of mitigation measures which may be implemented
- Procedures for providing respite periods.

We manage impacts in a number of ways, including:

- Completing work during standard construction hours where possible
- Consulting with directly affected residents and businesses
- Providing respite periods for high-noise activities
- Using noise blankets where possible
- Monitoring and reviewing noise levels
- Turning off equipment and vehicles when not in use.

When work is required at night, high-noise work will be carried out for a maximum of two consecutive nights per week, unless agreed otherwise with impacted residents and stakeholders. Where high-noise work is anticipated for an extended period of time, mitigation measures and treatments will be discussed with residents depending on the expected noise levels at each property generated by the works.

When high-noise work takes place during the day, respite periods will be provided – for every three hours of high-noise work, one hour of respite will be provided unless agreed otherwise with impacted residents and stakeholders.



Standard hours of work

Our standard construction hours are 7am to 6pm, Monday to Friday and 8am to 1pm on Saturdays. Working times and conditions are detailed in the project project’s Planning Approval.

Work may take place outside standard construction hours in some circumstances, subject to further approval. These circumstances may include:

- Track access - we have limited opportunities throughout the year to access the track area due to the rail services that travel in the corridor and for safety reasons, many work activities need to be carried out during pre-planned track closures (the majority of which take place at weekends)
- Road access – where work needs to take place in or near a road, in many cases licences to work in the road are only approved outside peak hours or at night
- Low-noise activities – for example, surveying, use of hand-held tools, deliveries and vehicle movements
- Work carried out by utility authorities under separate environmental approvals and conditions
- Emergency work to mitigate risks to safety.



Translation and Interpretation Services

Please call **131 450** and ask them to call the project team on **1300 550 402**.

Vietnamese

Dịch vụ Thông Phiên Dịch – vui lòng gọi số 131 450 và nhờ họ gọi cho toán phụ trách dự án qua số 1300 550 402.

Chinese Simplified

翻译与传译服务——请致电131 450，并请他们接通项目团队电话1300 550 402。

Arabic

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Khmer

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Chinese Traditional

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