



BOTANY RAIL DUPLICATION NOISE AND VIBRATION FACT SHEET

The Botany Rail Duplication will duplicate the remaining 2.9km section of single line track to Port Botany. This will allow freight to be moved more efficiently and effectively.

Construction of the project 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 works listed on the next page (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:

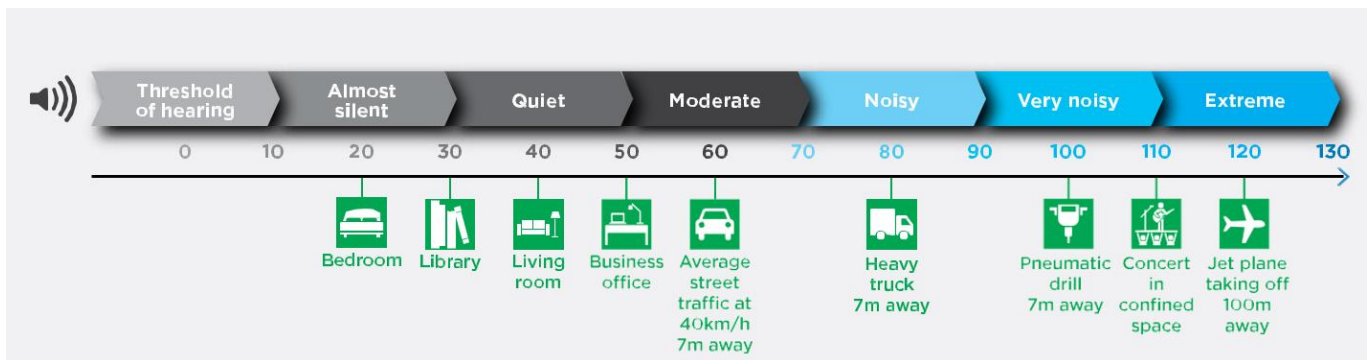
- Demolition – up to 84 dBA
- Bridge works – up to 82 dBA
- Earthworks – up to 73 dBA
- Retaining wall construction – up to 72 dBA
- Cable route installation – up to 73 dBA
- Drainage works – up to 73 dBA
- Trackwork – up to 86 dBA
- Signalling works/cable pulling – up to 73 dBA.

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.

Mitigation measures can include noise blankets, turning off equipment and vehicles when not in use, providing respite periods for high-noise activities, and consultation with affected residents and businesses.

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 standard construction hours, 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 approved construction hours are 7am to 6pm, Monday to Friday and 8am to 6pm 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.

Bengali

অনুবাদ এবং দোভাষী পরিষেবা - অনুগ্রহ করে 131 450 নম্বরে টেলিফোন করে প্রজেক্ট টিম-কে 1300 550 402 নম্বরে কল করার জন্য অনুরোধ করুন।

Chinese Simplified (Mandarin)

翻译与传译服务 -- 请致电131 450，然后请他们致电项目团队 1300 550 402。

Chinese Traditional (Cantonese)

翻譯與傳譯服務 -- 請致電131 450，要求聯絡項目團隊，電話 1300 550 402。

Greek

Υπηρεσίες Μετάφρασης και Διερμηνείας - Παρακαλείστε καλέστε το 131 450 και ζητήστε τους να καλέσουν την ομάδα έργου [project team] στο 1300 550 402.

Indonesian

Layanan Penerjemahan dan Juru Bahasa -Silakan menelepon 131 450 dan minta untuk menelepon tim proyek di nomor 1300 550 402.

Spanish

Servicios de Traducción e Interpretación - Llame al 131 450 y pídale que llamen al equipo de proyectos, en el 1300 550 402.

WANT TO KNOW MORE?

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