

NOISE/SCREEN WALLS

As part of the Gateway WA Perth Airport and Freight Access Project approximately six kilometres of new noise/screen walls will be installed to mitigate traffic noise and provide privacy screening to protect local residents.

WHERE WILL THE NOISE/SCREEN WALLS BE LOCATED?

The noise/screen walls will be installed in various locations along the Leach, Tonkin and Roe Highways between the road and residential properties.

The positioning of the walls relative to residential properties is dependent on the road design and the availability of road reserve. Many of the walls will be installed in the road reserve with a maintainable gap between the existing residential fence and the noise/screen wall.

The locations and positioning of the walls have been based on extensive noise modelling, which takes into consideration the predicted traffic volumes on the highways in the year 2031.

HOW HIGH WILL THE NOISE/SCREEN WALLS BE?

In planning for the future, the heights of the new walls will be built to mitigate against predicted noise levels in the year 2050.

The heights of the walls from the residential side will vary between approximately 2.4 and 6 meters depending on the current and predicted future noise levels and the proximity of their locations to the road.

WHAT WILL THE NOISE/SCREEN WALLS LOOK LIKE?

The walls will be constructed of materials effective at buffering noise, with the majority being made of concrete panels and steel posts.

Generally the residential side of the wall will be a painted or coloured concrete finish in a neutral tone.

The noise/screen walls on the roadside will have a painted finish and relief pattern consistent with the project's urban design concept, which will create an iconic 'Gateway' to Perth and Western Australia. The walls will contribute to creating a themed journey and act as way-finding cues to Perth landmarks of the 'city, river and range'.

WHEN WILL THE NOISE/SCREEN WALLS BE INSTALLED?

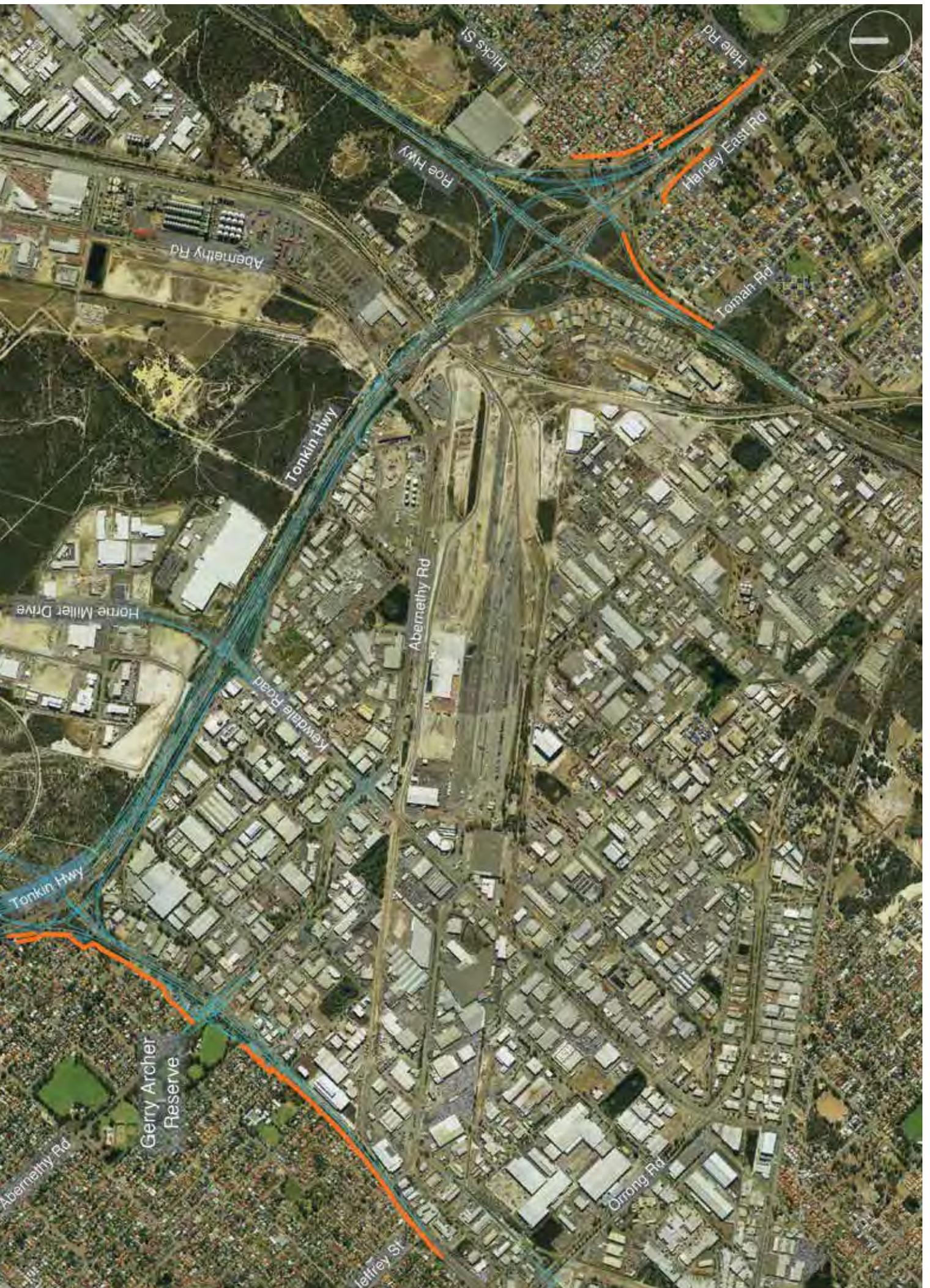
Gateway WA is endeavouring to install the walls as early as possible in the construction program in each area to provide mitigation from construction related noise. Wall construction commenced in late 2013 and will continue in stages.

Unfortunately in some locations the noise/screen walls will not be able to be installed until later in the construction program due to the road design and existing road infrastructure.



Proposed noise/screen walls





HOW DO THE WALLS REDUCE TRAFFIC NOISE?

By positioning the walls between the road and residential properties the sound waves emanating from the road are forced to diffract around the edges of the walls, reducing the direct sound pressure.

Typically noise walls can reduce road traffic noise by approximately 5 to 10 decibels, essentially halving the perceived noise level.

The level of noise reduction achieved through the installation of noise walls is dependent on a number of factors including length and height of the wall.

HOW ARE THE EXISTING AND FUTURE NOISE LEVELS DETERMINED?

Extensive noise modelling by acoustic experts has been undertaken to determine the location and height of the noise walls to be installed as part of the project.

Existing noise levels were established by undertaking monitoring at a selection of residential properties using noise data loggers. Typically, the loggers were in place for one week and the average weekday noise level calculated taking into consideration the average day and night noise levels.

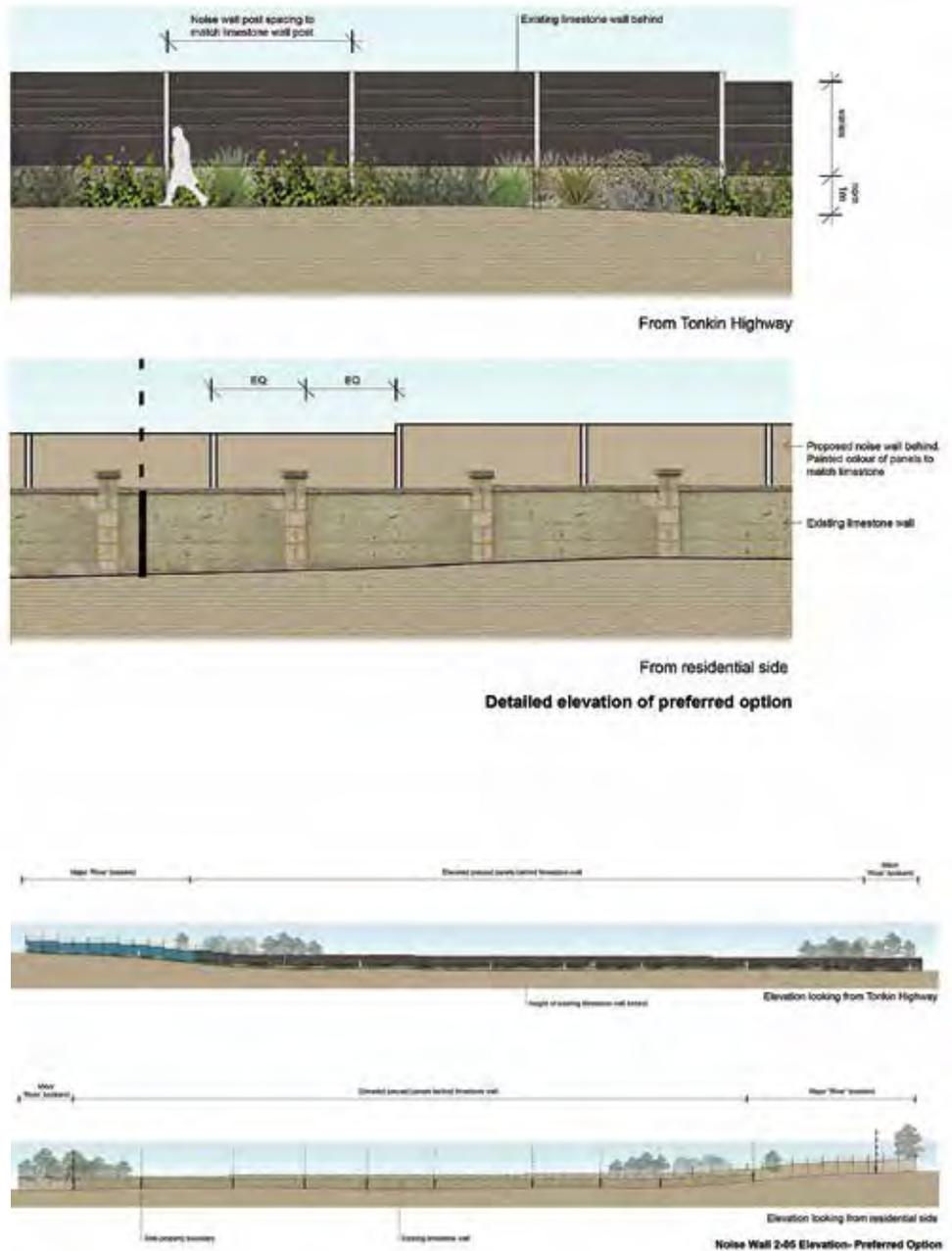
The noise monitoring results were then used to construct a noise model of the existing and future traffic conditions.

The road traffic noise modelling used for the project is three dimensional and has taken into account the following:

- > Road traffic volumes
- > Percentage of heavy vehicles
- > Posted speed limit
- > Road surface
- > Topography
- > Barriers
- > Buildings
- > Ground absorption

HOW WILL THE WALLS BE CONSTRUCTED?

The construction methodology for the noise/screen walls depends on the positioning of the walls. In locations where the wall is offset from the existing residential fence the noise/screen wall will be constructed via access from the road reserve. Residents will notice the construction of the noise/screen walls however the project will make every effort to reduce the impacts of construction.



WANT TO KNOW MORE?

Gateway WA will be meeting with all property owners where a noise/screen wall will be installed abutting their property boundary.

For further information about the noise/screen walls please contact the Gateway WA Project team directly.

CONTACT US

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