What is a noise wall?
Noise walls are physical barriers that reduce noise levels for residential properties adjacent to a main road with high traffic volumes. Noise walls are installed to achieve the noise level objectives in the Western Australian Planning Commission (WAPC) Road and Rail Noise Policy (State Planning Policy 5.4).

Noise walls may be installed close to the road, or on the boundary of an adjoining residential property, depending on where it will be most effective, based upon a site’s attributes and constraints.

How do the walls reduce traffic noise, and what are the other benefits?
The noise wall is placed between the road and residential properties, forcing sound waves to travel around the edges of the walls, reducing direct sound and noise experienced at adjoining residential properties.

On High Street, the walls will act to reduce noise and improve amenity both inside and outside houses. Additionally, the walls will provide privacy screening for residents who have been exposed to the road since it was first constructed.

Another key benefit is the wall provides a barrier that blocks the majority of particulates from vehicle emissions.

High Street residents will now be able to enjoy a quieter area in front of their properties that will improve the amenity of the neighbourhood.

Monitoring will be undertaken six months after project completion to confirm the targeted average noise levels have been achieved.

Where are noise walls placed?
The indicative location of noise walls for the High Street Upgrade project is shown in the attached map. This will be further refined during the detailed design phase, once the design and construction contract has been awarded in mid 2019.

Noise walls are provided where noise modelling shows that residential properties are likely to experience high levels of traffic noise within the project area (as defined under WAPC SPP 5.4). Noise walls are not provided where commercial or public open spaces interface the road corridor.
How high will the noise walls be?
The height of the new walls is expected to be between 3m and 5m high to mitigate current and predicted future noise levels, and to meet the requirements of State Planning Policy 5.4. The increased height will ensure that residents can’t see the top of trucks (ie exhaust stacks, which are approximately 3.6m high).

How is the location and height of the walls determined?
The height of the noise wall is determined by a process of noise modelling. Noise modelling is completed by a specialist, independent consultant using noise monitoring equipment to record the existing noise levels from the road as a baseline for forecasting future noise levels.

The noise model takes into account factors such as road geometry and topography, vehicle types, proposed traffic speed, future traffic volumes, road surfacing, height of the new highway, and the distance between the road and the properties.

What material will the noise wall be made out of, and how will it look?
Noise walls are typically made using concrete panels. The process involves erecting steel posts and placing concrete panels between the posts. Noise wall colour and design will be determined during the detailed design stage of the project, in consultation with the local community.

A landscaping and urban design strategy is also being prepared as part of the project.

Who will be responsible for the maintenance of the noise wall once it is constructed?
Main Roads is responsible for the structural maintenance of the noise walls. If a wall is required on a property boundary, the existing boundary fence may be removed upon agreement with the resident and replaced by the noise wall. If a wall is placed on a property boundary, ongoing maintenance of the wall on the property side will be the property owner’s responsibility.

Will there be landscaping in front of noise walls not located on resident boundaries?
If there is sufficient space and width from a maintenance perspective, landscaping will be provided, in consultation with residents and the community.

Contact us
If you would like to register for project updates, visit the ‘Contact us’ page at mainroads.wa.gov.au
If you have questions or concerns, please call the Main Roads Customer Information Centre on 138 138.
For more information about the road improvement projects planned in your area, visit www.mainroads.wa.gov.au