



Airport Link ventilation



BrisConnections has developed a sophisticated \$300 million sophisticated longitudinal ventilation system to allow each of the Airport Link tunnels to meet stringent standards for in-tunnel air quality and external air quality goals at both national and state standards.

The Airport Link tunnel will be ventilated by three outlets (VSOs) along the road's alignment. The VSOs are located at Toombul near the junction of Sandgate Road and the East West Arterial Road, at Kedron behind the Emergency Services complex and at Bowen Hills just south of Federation Street.

To achieve air quality within the nominated limits, the air in the tunnels is diluted with large volumes of fresh air drawn from the surface through the tunnel portals. This air flow is regulated using large jet fans installed along the roof of each tunnel.

The air in each tunnel is extracted prior to reaching the exit portal and expelled via the outlets at each ventilation station. The ventilation stations contain axial fans which propel the diluted air upwards through the ventilation outlets for dispersion into the atmosphere.

Experience has shown that reduced traffic on surface roads, as a result of motorists opting to use the alternative tunnel route, leads to less stop start traffic and congestion, an improvement in vehicle emissions and a smoother driving experience.

Air quality monitoring

Once Airport Link is operational comprehensive air quality monitoring will occur around the ventilation stations and inside the tunnels.

External monitoring

Prior to the tunnel's opening, background monitoring will be undertaken in the proximity of the VSOs. Once operational, external tunnel air quality must meet limits set by the Coordinator General in the Conditions of Approval. Results of the monitoring will be published on a daily basis on the Airport Link website.

Internal monitoring

Internal monitoring of carbon monoxide and other emissions will be conducted once the Airport Link tunnel is open to traffic. Monitoring will be conducted on a regular basis in line with international best practice similar to those that currently apply to other road tunnels in NSW and Victoria. Results of the monitoring will be made available to the general public in real-time on the Airport Link website, in accordance with the Coordinator General's Conditions of Approval.

The three VSOs for the Airport Link project will be located at:

Bowen Hills – the ventilation station is partially buried near Mann Park, adjacent to Federation Street, allowing for provision of a landbridge and the creation of new parkland for the community. The ventilation outlet itself will feature subdued night lighting and is positioned with the slim side facing Federation Street residents to reduce the visual impact and shadowing during the day.

The Bowen Hills outlet is approximately 30 metres high, 11.7 metres long and 6 metres wide. The outlet will be covered in anodized aluminium cladding.



Kedron – the ventilation station is located behind the Emergency Services complex. The structure is similar in scale to buildings already existing in the surrounding area, including two Emergency Services offices recently built on the adjacent side.

The Kedron ventilation station building is 20 metres high and 64.5 metres long. The vent outlet itself is an additional 10 metres high. The outside of the Kedron ventilation station will consist of precast concrete with architectural features.

Toombul – the VSO is fully below ground, allowing for provision of a new pathway and parkland connection for the community. The VSO will feature subdued night lighting and is positioned with the slim side facing residents, again to reduce the visual impact and shadowing during the day.

The VSO structure is approximately 25 metres high, 15 metres long and 5.8 metres wide. The outlet will be covered in anodized aluminum cladding, with a feature panel which will reflect different colours in varying lighting conditions.

