

# Legacy Way Tunnel, Brisbane

FlameTrap units

Case study



# FlameTraps deliver on best practice in fire safety

Humes has delivered an elegant fire abatement solution for the Legacy Way road tunnel in Brisbane, helping to ensure the tunnel achieves industry best practice for fire safety and environmental management.

Legacy Way is a 4.6km road tunnel connecting Brisbane's Western Freeway with the Inner City Bypass. The tunnel is being constructed by the consortium Transcity, for Brisbane City Council.

The FlameTrap solution delivered by Humes is a key fire safety feature in the tunnel. Other features include heat detection and fire sprinkler systems, fire hydrants, hose reels and emergency telephones.

Humes supplied 140 FlameTrap units for the Legacy Way project. The FlameTraps are made with a built in weir which separates and contains chemicals in the precast chambers. In the event of a spill on the tunnel roadways, the hazardous fluids will flow by natural gravity into the FlameTrap, minimizing the opportunity for fire to start and spread within the tunnel. The trapped chemicals can be easily extracted by vacuum hose and appropriately disposed of. Any clean run-off from the wash down is then separately piped to the tunnel's low point structures.

Each FlameTrap unit comprised a bottom, middle and top chamber with a grated lid and solid cover, providing a storage volume of approximately 100 litres. The units were installed at regular intervals in the tunnel roadway. Humes manufactured the FlameTrap components at its Ipswich facility, using state of the art moulds, ensuring the integrity of all joints and edges. The three chambers in each FlameTrap unit are connected by cast-in rebates, and sealed with an epoxy mortar for durability.

The mould designs for the precast elements needed to be flexible enough to accommodate varying site locations, with units being installed in both negatively and positively graded positions.

The high quality precast design of the FlameTrap units ensured a rapid and simple installation, and the integrity of the containment of chemicals in the tunnel.

**Humes**  
A Division of Holcim Australia

National sales 1300 361 601 | [humes.com.au](http://humes.com.au)

## Project

Legacy Way tunnel, Brisbane

## Principal

Brisbane City Council

## Contractor

Transcity

## Products supplied

140 FlameTrap units

