

**WEST GATE TUNNEL PROJECT ENVIRONMENT EFFECTS STATEMENT**  
**INQUIRY AND ADVISORY COMMITTEE**

**CITY OF MELBOURNE**

**TECHNICAL NOTE NUMBER:** #12

**DATE:** 15 September 2017

**LOCATION:** Port, CityLink and City Connections

**EES/MAP BOOK REFERENCE:** Technical Report A

**SUBJECT:** Further response to PN40

**NOTE:**

1. This Technical Note contains additional material in response to Project Note 40 to that which is contained in the City of Melbourne's Technical Note #3 (Document 123).
2. The City of Melbourne asked Marco Lucioni, Freeway Design expert, to further review and comment on Project Note 40 which was dated 16 August 2017.
3. This Technical Note has been prepared with the assistance of Mr Marco Lucioni and his Project Team.

**RESPONSE:** Further detailed analysis is attached.

**CORRESPONDENCE:** N/A

**ATTACHMENTS:** The further response to PN40 is attached.

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**Observations of 2031 performance of the Appleton Dock access and Wurundjeri Way / Flinders St**

The '2031 Project' AM microsimulation video indicates that the length of the queue extends beyond the extent of the southern approaches modelled at the intersection of Footscray Road / Moreland St and at Footscray Road / Appleton Dock Road, (as depicted in the images below).



The '2031 Project' PM microsimulation video also shows vehicles queuing out of the model at Flinders Street / Wurundjeri Way – refer below.



The videos indicate unreleased vehicles at these locations (during the periods shown). If there are unreleased vehicles at the end of the modelling period, there will be less vehicles modelled on the network during the simulation period (which has follow on affects to modelled results and outputs).

However, there is insufficient information in PN40 to confirm the number of 'unreleased vehicles' in the '2031 Project' models. Therefore, it is not possible to undertake an adequate review of the modelling provided in PN40.

It is understood that LOS results as reported in VISSIM models typically don't include unreleased vehicles, and that this would therefore *under* estimate or report LOS results in these locations.

However, there is not enough information in PN40 to confirm if the LOS modelling results (reported as part of the EES) include delay for unreleased vehicles in these locations, particularly the Appleton Dock Road link (it is also noted that no results are provided for the Moreland Road and Flinders Street intersections, preventing a more detailed assessment of unreleased vehicles of these intersections).

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Further review of the modelling results for the intersection of Appleton Dock Road / Footscray Road indicates the following for the south approach.<sup>1</sup>

**Unreleased vehicles (south approach)**

- **600** approach vehicles included in the AM peak **2031 no project** model (Table 32 – Technical Report A – Part 2)
- **460** approach vehicles included in the AM peak **2031 project** model (Table 93 – Technical Report A – Part 2)

As these volumes are different it suggests that the 2031 project model includes 140 *unreleased* vehicles in the AM peak hour (i.e. the network was modelled with 140 vehicles *less* than predicted by the VLC Zenith model which could have implications for network modelling results and outputs).

**Delay / LOS (south approach)**

- **85 sec** (1:25min) average delay AM peak **2031 no project** (LOS F) (Table 32 – Technical Report A – Part 2)
- **174 sec** (2:54min) average delay AM peak **2031 project** (LOS F) (Table 93 – Technical Report A – Part 2)

The above suggests that the *average* time to exit the port is approximately 3min in the AM peak 2031 project case, which is roughly double the **2031 no project case**.

However, given the above comments **on unreleased vehicles**, it is possible that the AM peak hour 2031 project model *underestimates delay* and could therefore be in excess of 3 minutes.

However, there is not enough information provided in PN40 to undertake a sufficient analysis to draw more certain conclusions.

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<sup>1</sup> *Full modelling results have not been included for the Footscray Road / Moreland St & Flinders Street/Wurundjeri Way intersection so it is difficult to review unreleased vehicles at this location.*