4.4 Cost of upgrading Moorebank Av brought forward 15 years

Moorebank Av upgrade from a two-lane to a four-lane road.

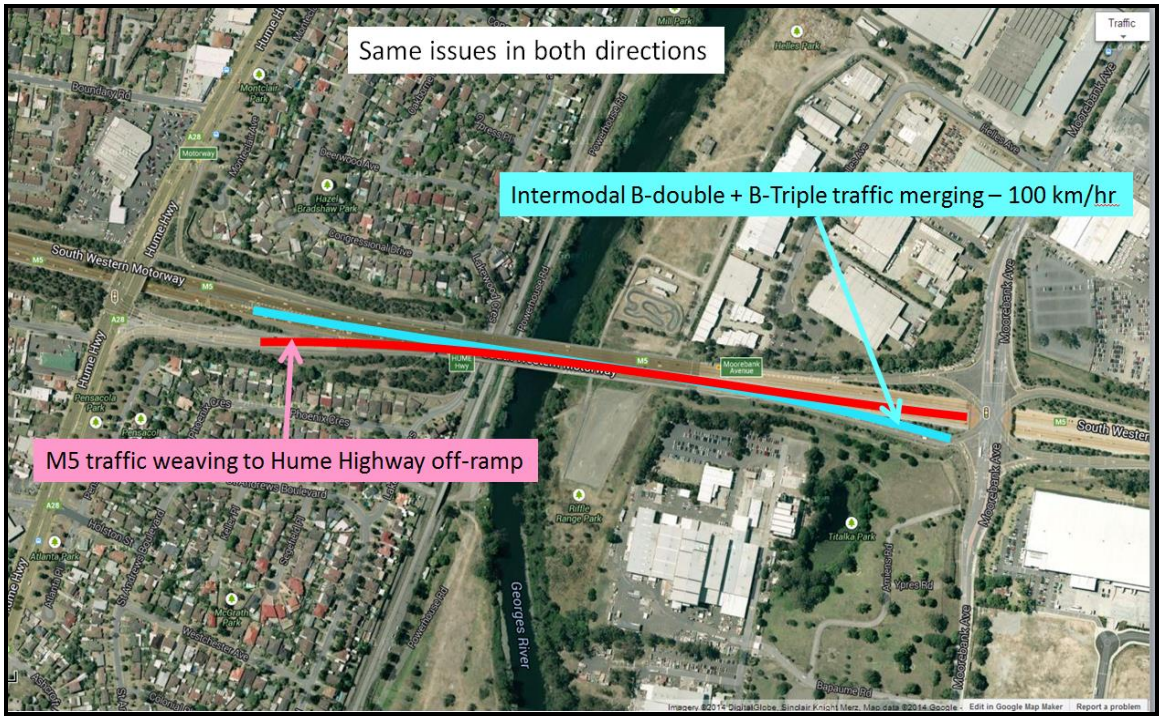
In the Detailed Business Case this upgrade was budgeted for 2029/30. Both the SIMTA and MIC concept designs show that this upgrade is part of the initial design. This means that the budgeted expenditure is brought forward 15 years.

4.5 Intermodal direct access to M5

The Detailed Business Case stated that the Intermodal has direct access to the M5. While that statement is politically correct, the implementation of the connection is technically challenging and very expensive. Indeed, the SIMTA EIS has a report dedicated to this issue. (10)

4.6 Weaving on the M5 Motorway on the Georges River Bridge

Figure A4 4 Weaving issue on bridge over the Georges River on the M5 Motorway



On this section of the network in the westbound direction, there is a merging movement from the SIMTA traffic into a fast (100 km/hr) traffic stream. At the end of the section, there is a weaving movement from the M5 Motorway traffic wanting to enter the Hume Highway off-ramp. The physical distance between the on-ramp and off-ramp is too short for these movements to occur at a 100km/hr zone.

SIMTA timing runs have shown that the average speeds are between 50-60 km/hr. This indicates that the traffic stream on this section is close to capacity. When the traffic stream is close to capacity, there are few “gaps” in the traffic stream.

As it is, there are few “gaps” in the traffic stream. There will be even fewer gaps when the traffic flow increases naturally. Intermodal truck traffic requires large gaps in the traffic stream for the big and relatively slow accelerating vehicles as they are heavily loaded with containers.

There are no simple engineering solutions to this merging and weaving movement.

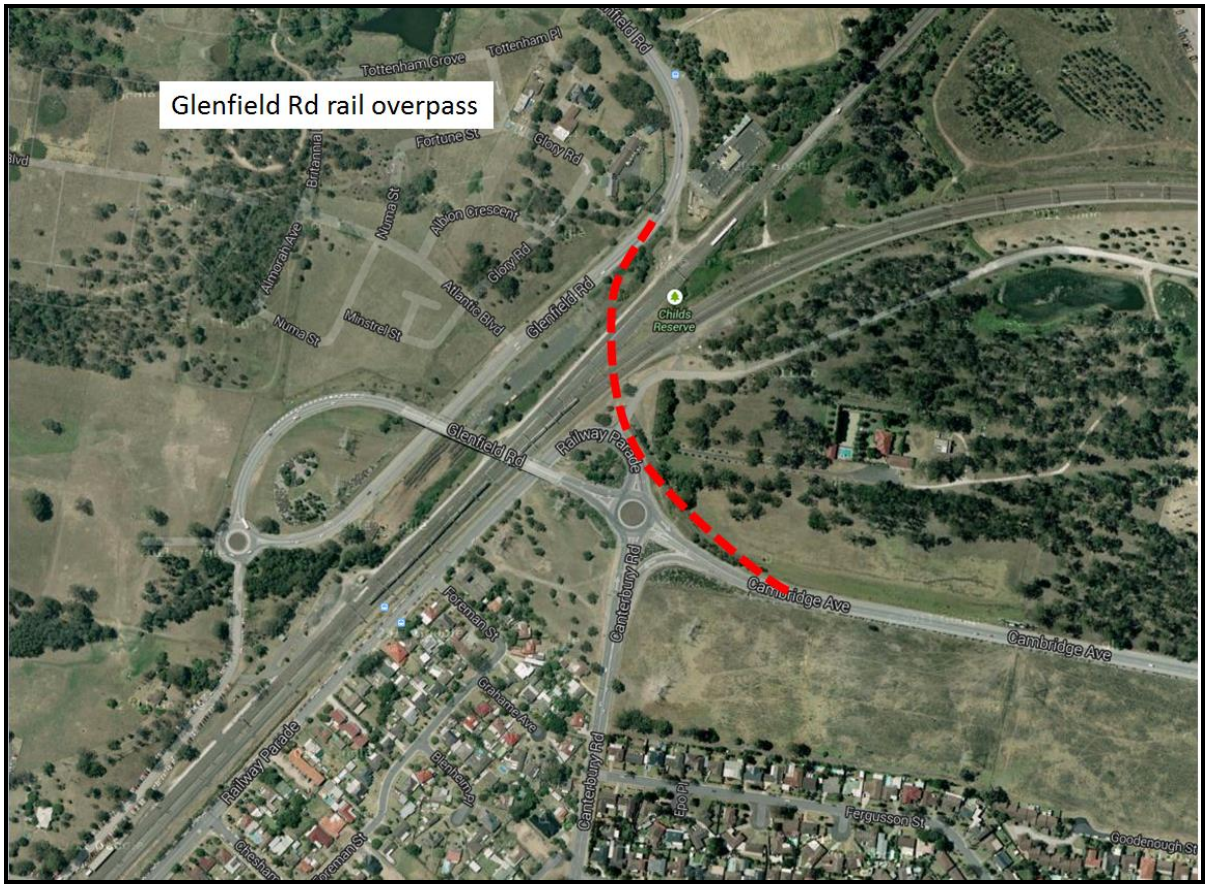
4.7 Possible new rail overpass connecting Cambridge Av and Glenfield Rd

The existing Glenfield Rd with its 270 degree loop on a slope will be a very difficult path for loaded B-Doubles and B-Triples.

MIC is investigating “a possible new road in the corridor to the M5 and M7 Motorways (an initiative recommended by some community participants at the information sessions. (11)

This is shown schematically in Figure A5 5 below.

Figure A4 5 Possible new rail crossing over the Southern Freight Line and Macarthur lines (MIC)



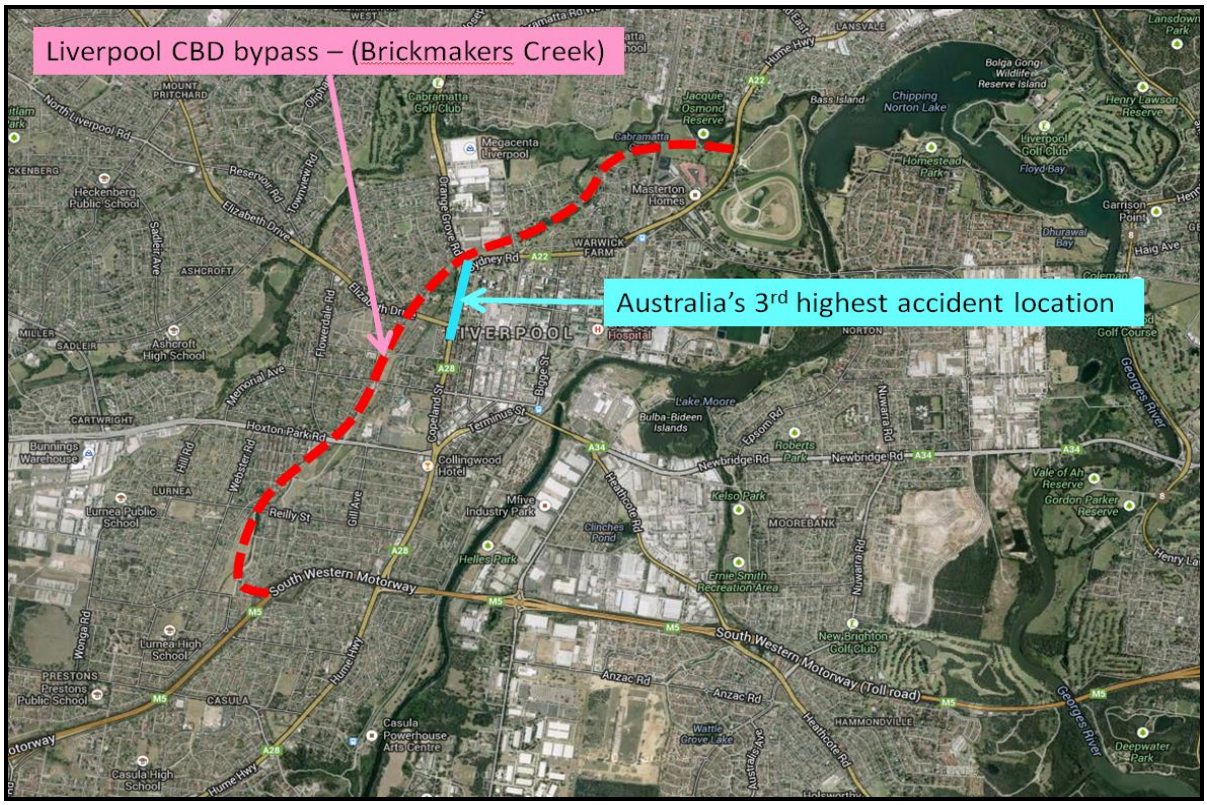
4.8 Possible new Liverpool CBD bypass

Liverpool CBD bypass: MIC is investigating “measures to prevent other traffic impacts, like ‘rat-running’. (11)

This translates to a Liverpool CBD bypass along Brickmakers Creek that would solve having such a high number of Intermodal trucks traversing Australia’s third highest accident hot spot.

However, building a bypass through an old creek bed, and established parkland, will require not only sound engineering skills, but also very good environmental impact statements.

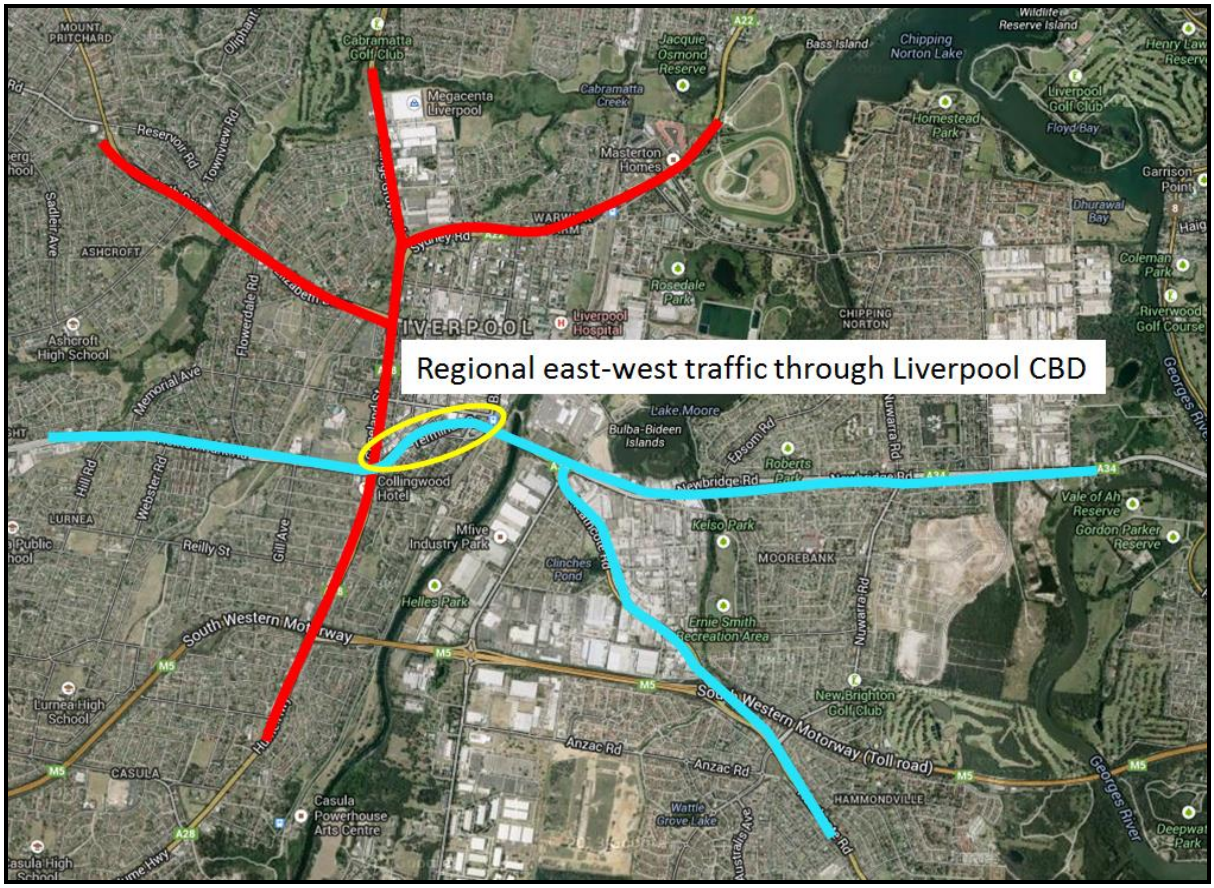
Figure A4 6 Possible new Liverpool CBD bypass (MIC)



4.9 Macquarie St – Terminus St congestion

Macquarie St – Terminus St carries the region's east-west traffic through the Liverpool CBD. Travel time surveys showed that the average speed is 18km/hr, while it has a sign-posted speed: 60km/hr (2010). This compares with a typical bicycle speed of 15km/hr.

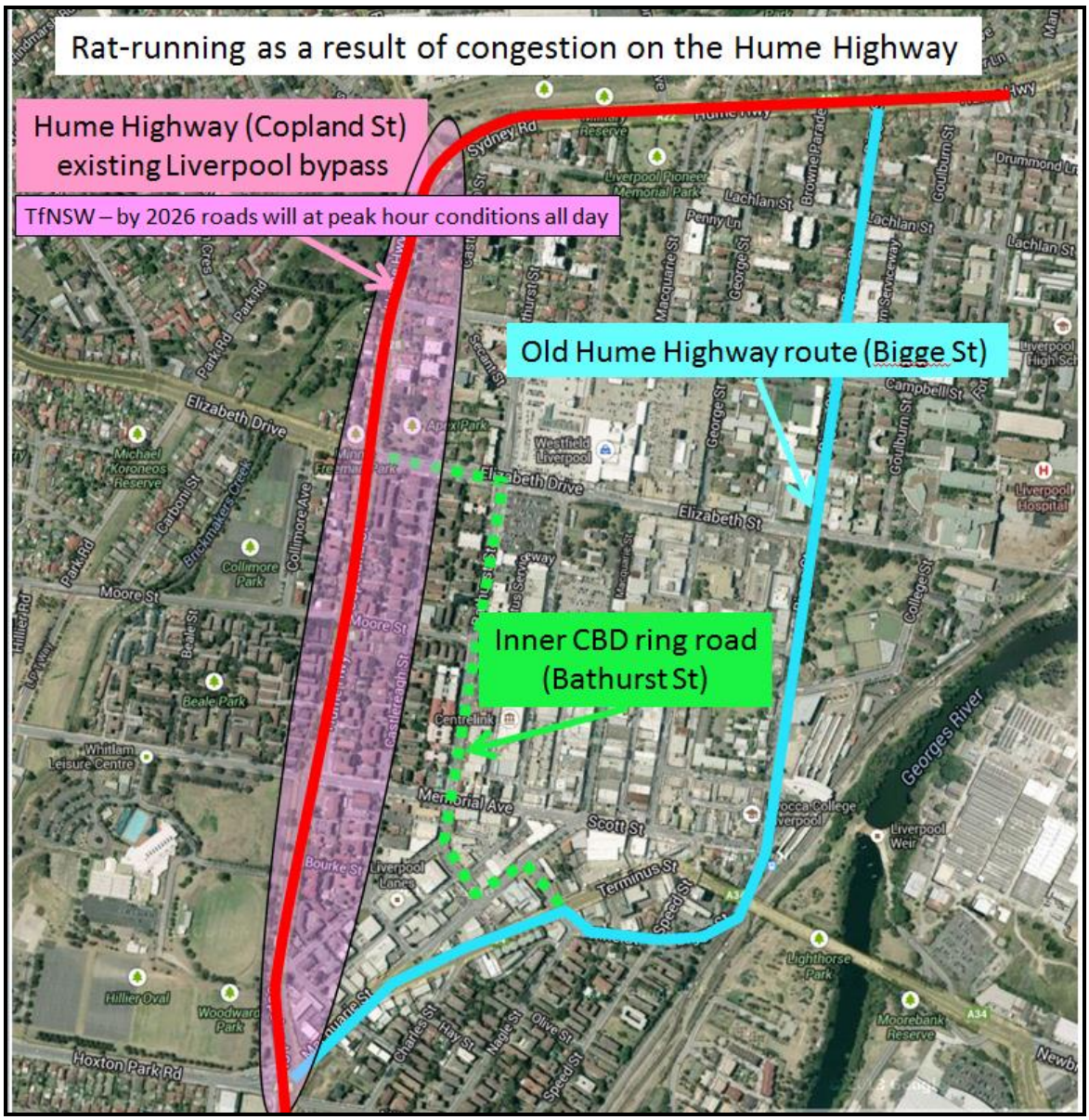
Figure A4 7 East-west traffic through Liverpool CBD. Surveyed speed: 18/km, sign posted: 60km/hr



4.10 Bigge St – Terminus St - resolving the rat-run through Liverpool CBD

Bigge St – Terminus St is likely to experience an increase in rat-running traffic because of the additional congestion on Copeland St. Other streets such as Bathurst St may similarly be impacted.

Figure A4 8 Possible rat-running as a result of more congestion on the Hume Highway

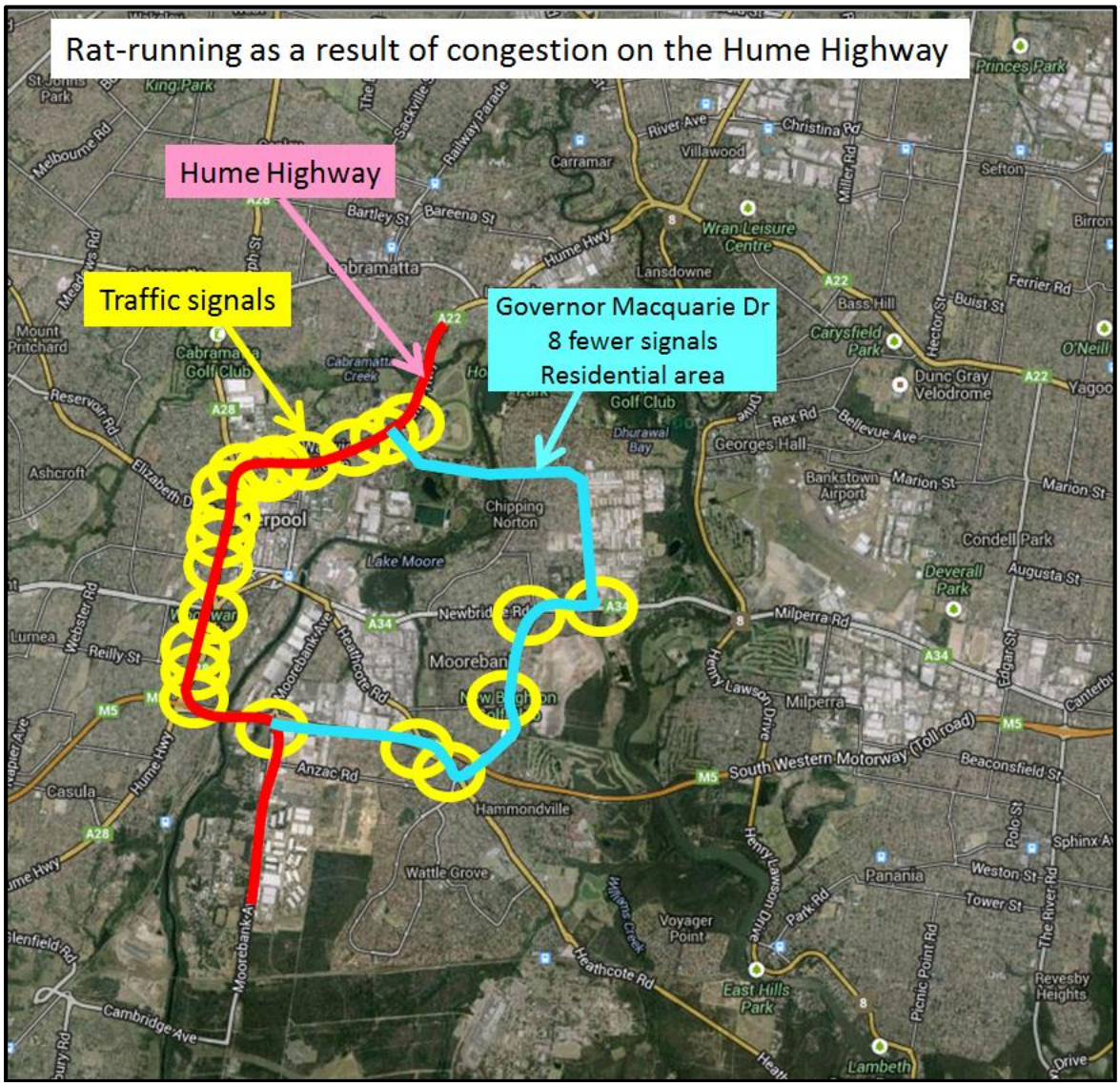


The Intermodal trucks may stay on the Hume Highway, but the cars will have more choice and some of these will choose the rat-runs.

4.11 Governor Macquarie Dr though residential area in Chipping Norton

Governor Macquarie Dr is likely to experience an increase of both truck and car traffic because of the congestion on the Hume Highway.

Figure A4 9 Rat-running as a result of congestion on the Hume Highway



Governor Macquarie Dr is an unofficial link between the Hume Highway and Newbridge Rd. The link passes through residential areas of Moorebank and Chipping Norton, has a 2-lane bridge over the Georges River and passes through Australia's premier horse racing industry.

Local development applications in Warwick Farm have shown that the Hume Highway – Governor Macquarie Dr has serious network capacity issues, and in addition, Munday St, which is mainly used by the industrial area and the horse racing industry, has serious issues of access to Governor Macquarie Drive and then the Hume Highway.

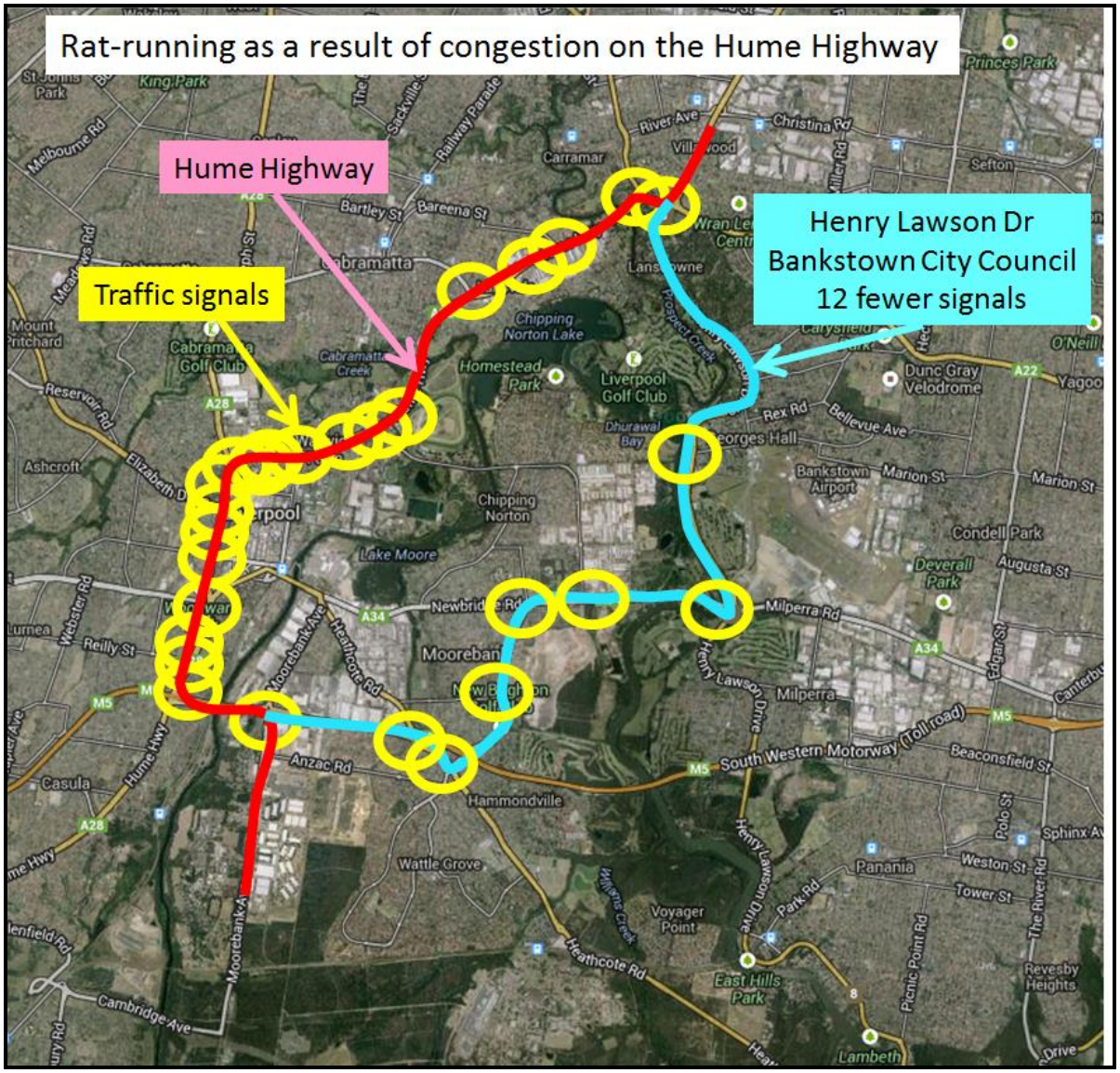
4.12 Henry Lawson Dr between Milperra Rd and Hume Highway

Henry Lawson Dr between Milperra Rd and Hume Highway needs upgrading. (8)

There are two paths between the Moorebank Intermodal and Woodville Rd: (1) the Hume Highway, and (2) Henry Lawson Dr.

The Henry Lawson Dr path has 12 fewer signalised intersections. For a driver of a loaded B-double of B-triple that must be a distinct advantage.

Figure A4 10 Rat-running as a result of congestion on the Hume Highway



4.13 Nuwarra Rd – between Heathcote Rd and Newbridge Rd

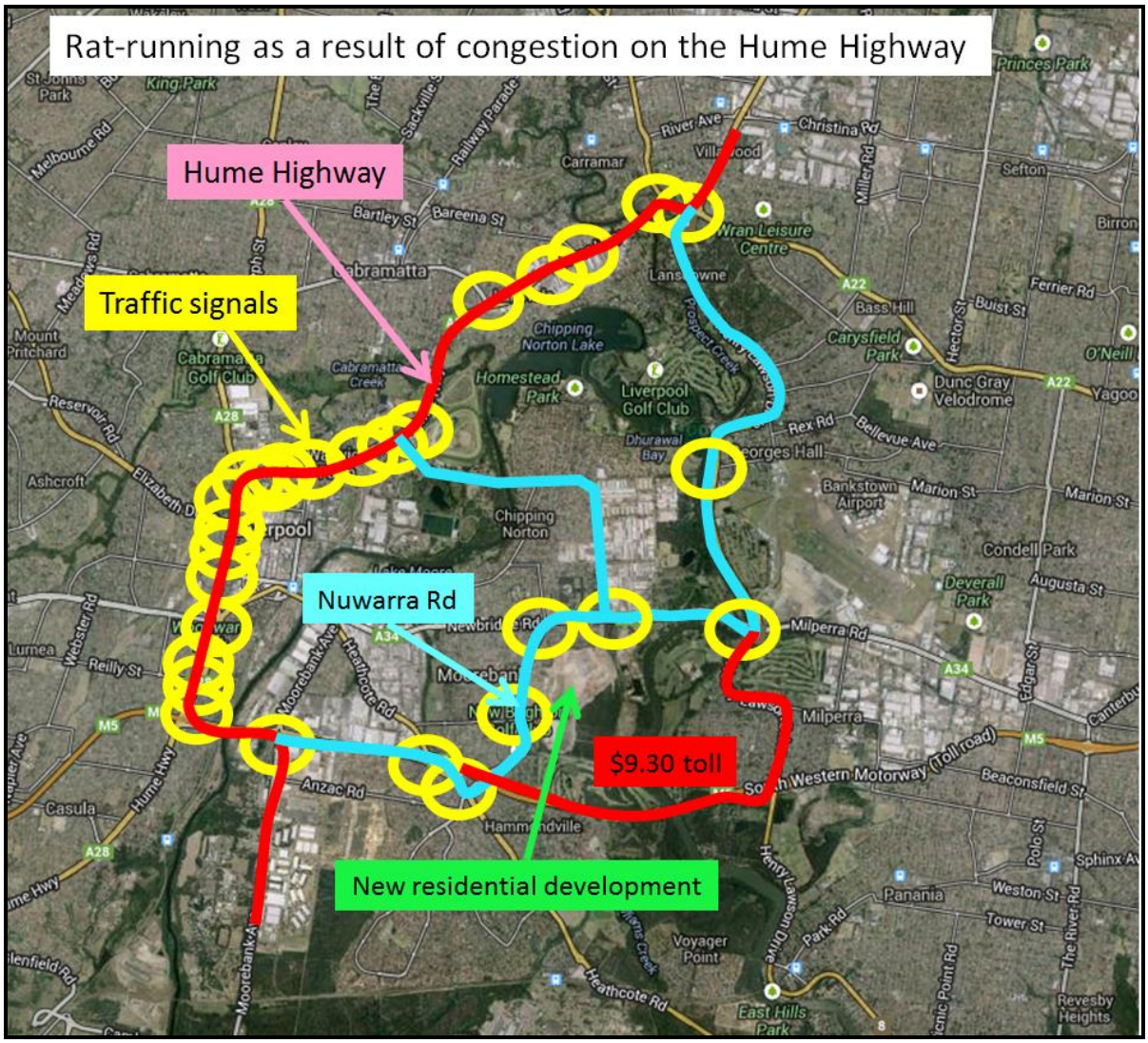
Nuwarra Rd – between Heathcote Rd and Newbridge Rd.

Traffic use Nuwarra Rd to avoid the $9.30 toll on the M5 Motorway.

Nuwarra Rd is a 2-lane roadway with right tuning bays. A very new residential development is being developed which has access point onto Nuwarra Rd.

For truck operators who wish to avoid the heavy congestion of the Hume Highway, this path will lead to the 'short-cut' to Governor Macquarie Dr and Henry Lawson Dr (see Figure A5 11 below).

Figure A4 11 Impact on Nuwarra Rd for local residents as a result of rat-running

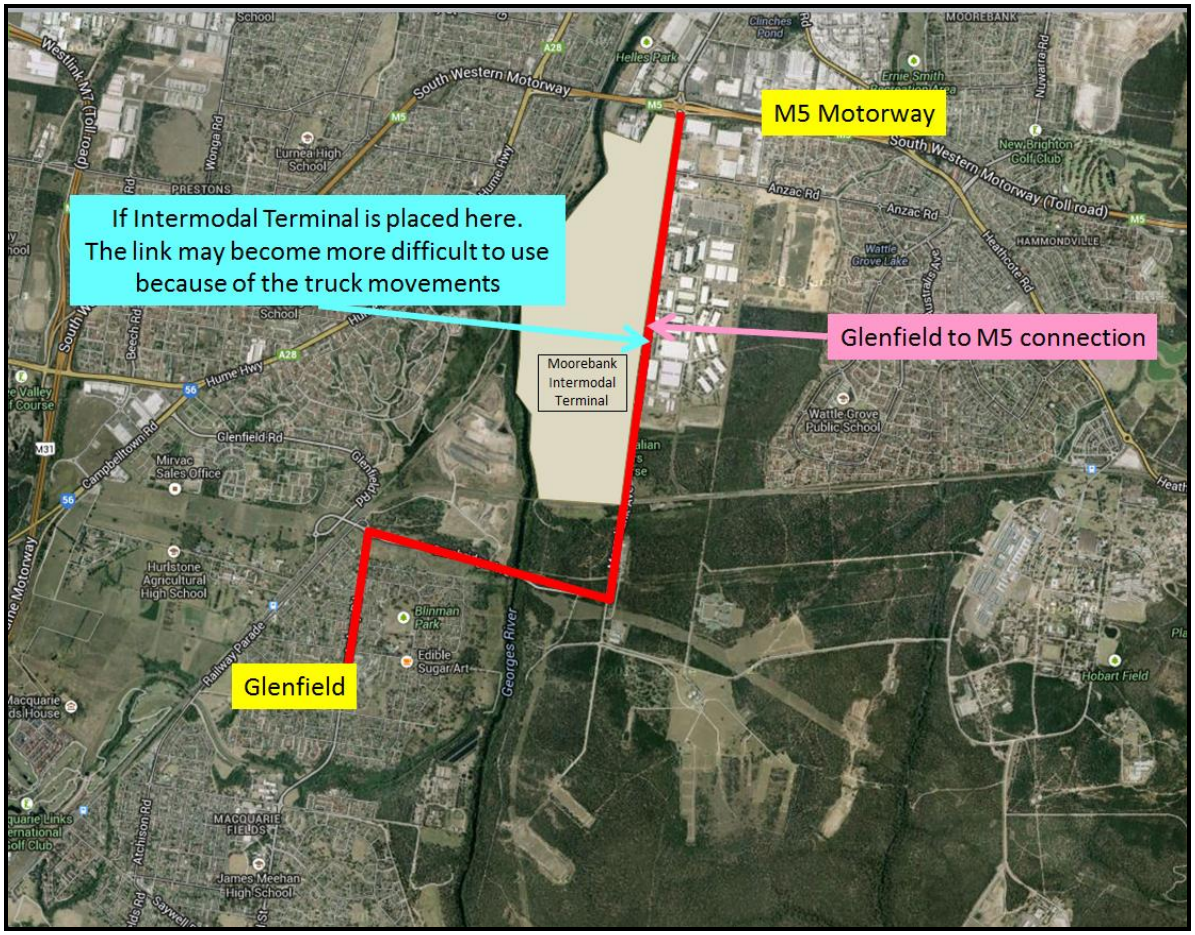


4.14 Glenfield to M5 Motorway link

Glenfield to M5 Motorway link

Moorebank Av is currently part of the Glenfield to M5 connection. If the Intermodal is built, it will have dramatic impacts on this link.

Figure A4 12 Glenfield to the M5 Motorway connection



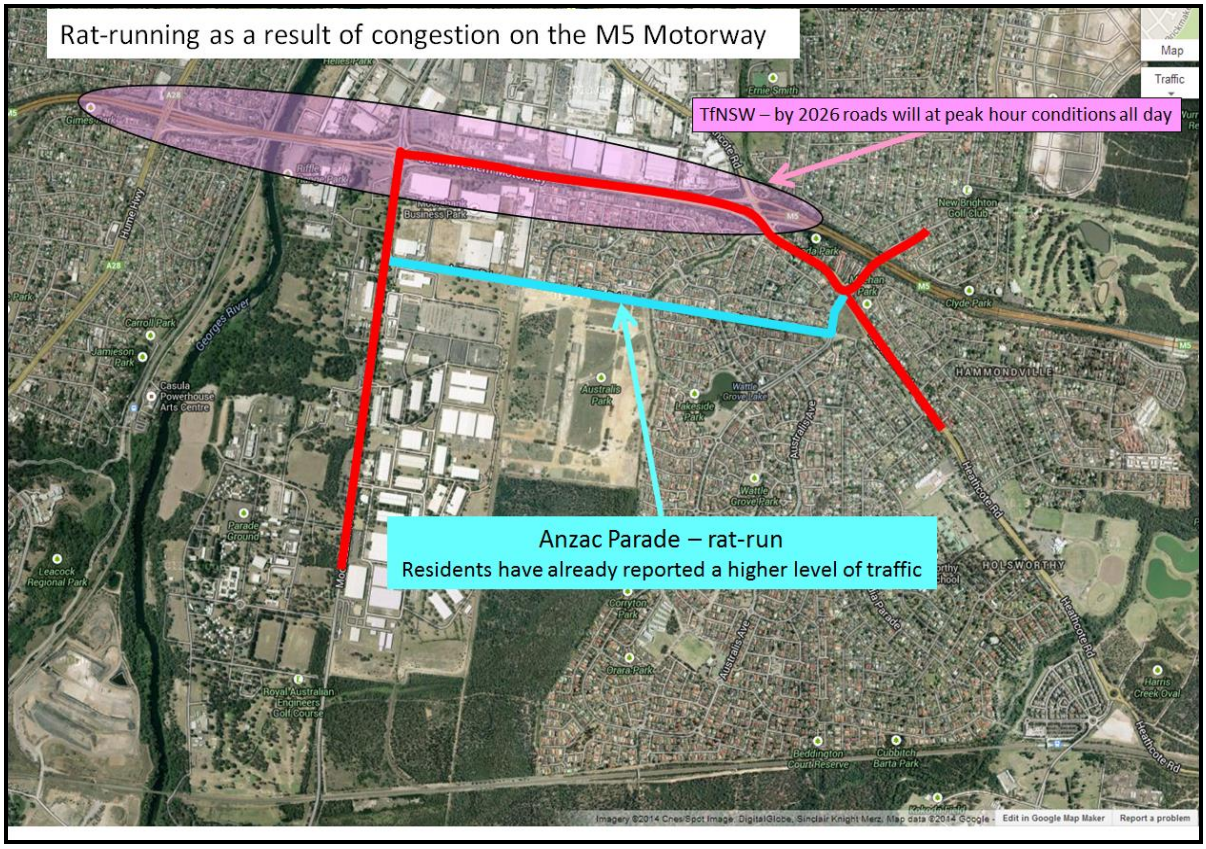
4.15 Traffic on Anzac Parade

Traffic on Anzac Parade has increased significantly in recent times. It is a parallel path to the congested M5 Motorway.

It is a concern that when the Intermodal Terminal is built, the trucks can be stopped from traveling on Anzac Parade but cars will have the option of choosing the shortest paths, which is through the residential area.

This can be managed by traffic management schemes but these must be included in the costs.

Figure A4 13 Rat-running on Anzac Parade due to congestion on the M5 Motorway



4.16 Intersections that may require grade separation (overpass – underpass)

4.16.1 Hume Highway – Hoxton Park Rd – Macquarie St

The north-south regional traffic on the Hume Highway crosses the east-west traffic on Hoxton Park Rd – Macquarie St. Therefore, it is a major intersection in the regional network.

The double right hand turn bay from the Hume Highway into Macquarie St was constructed to have a queue length as long as physically possible. At the time of its initial design it was known that the expected queue length was going to be extraordinary long. The modelling indicated that the queue length should be significantly longer than was physically possible.

The TfNSW is advocating the construction of the west facing ramps to ease the traffic conditions on the M5 Bridge and Moorebank Av.

One of the effects of this “improvement” will be transferring the Liverpool CBD bound traffic from Moorebank Av onto the Hume Highway. This transferred traffic now has to negotiate a double right hand turn, which is currently operating over capacity.

A recent improvement under the RMS’s pinch point program has had only a marginal improvement on the operations of the intersection.

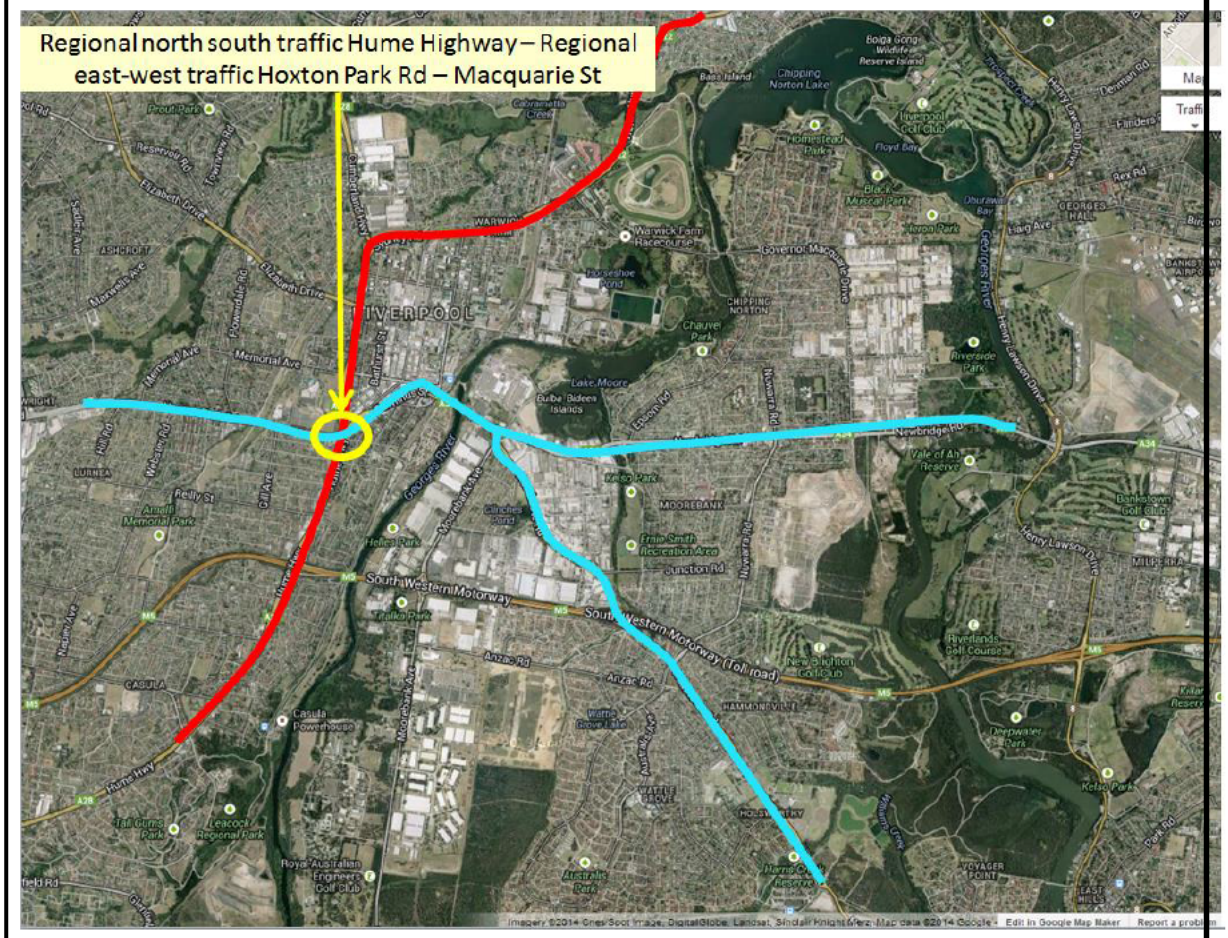
If the SIMTA modelling is correct, then 27% of the Intermodal traffic is going to use this intersection. The TfNSW estimates that the truck generation rate is 10 times higher than SIMTA’s estimate.

If both these estimates are correct, it translates to about ¾ of the current Port Botany truck traffic travelling through this intersection. See Figure A5 14 below.

If this were the case, a very different engineering solution will be required. This intersection will most likely require the separation of the north-south and east-west traffic. Given that the loaded B-doubles and B-triples require gentle slopes and wide curvatures, land-resumption may possibly be required.

Since this is a major road, any construction of such a massive structure can only be done during off peak time. This will add up to massive amounts of taxpayer money.

Figure A4 14 Critical intersection in the network - expected to be very heavily used by Intermodal traffic

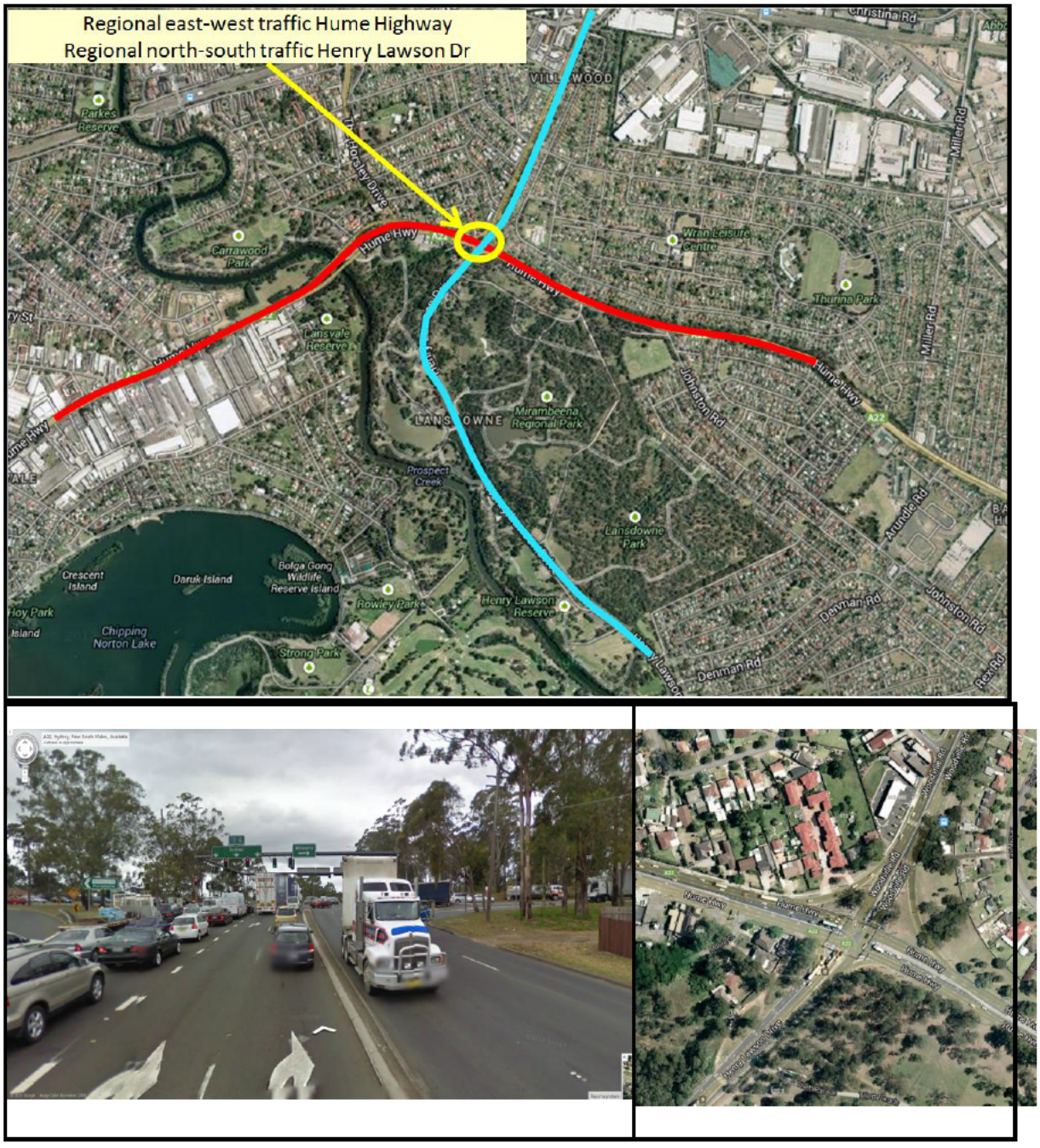


4.16.2 Hume Highway – Henry Lawson Dr

The east-west regional traffic on the Hume Highway crosses the north-south traffic on Henry Lawson Dr - Woodville Rd. This is a major intersection in the regional network.

The intersection is locally known as the “meccano set”, from the overhead structure. Bankstown Council has indicated that this intersection, which already has long queues, will need to be upgraded to a grade separated intersection.

Figure A4 15 Critical intersection - expected to be heavily used by the Intermodal traffic

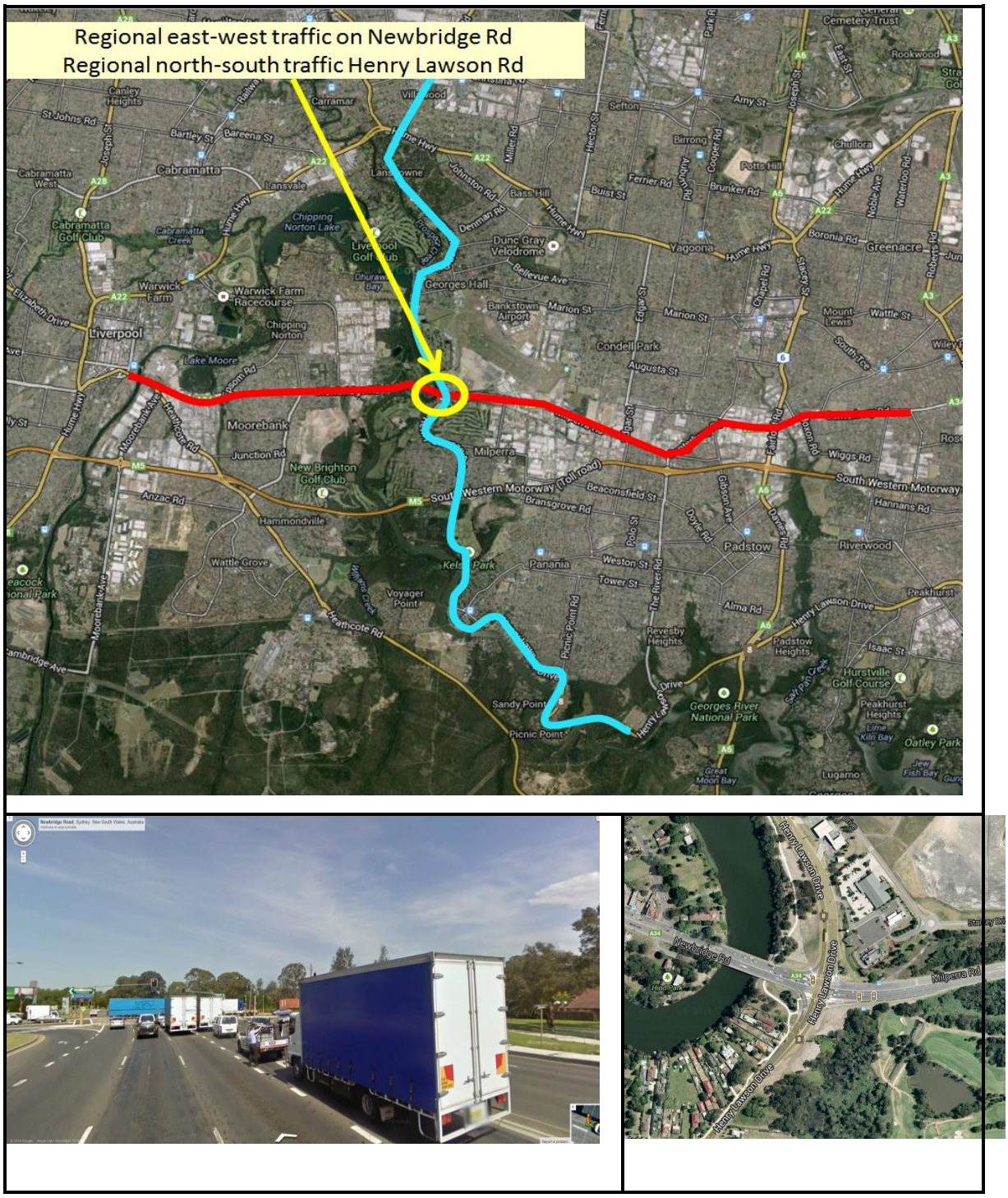


4.16.3 Milperra Rd – Henry Lawson Dr

The north-south regional traffic on the Henry Lawson Dr crosses the east-west traffic on Newbridge Rd. This is a major intersection in the regional network.

Bankstown Council has indicated that this intersection, which already has long queues, will need to be upgraded to a grade separated intersection.

Figure A4 16 Critical intersection - expected to be heavily used by the Intermodal traffic



5.17 Very complex Intersections

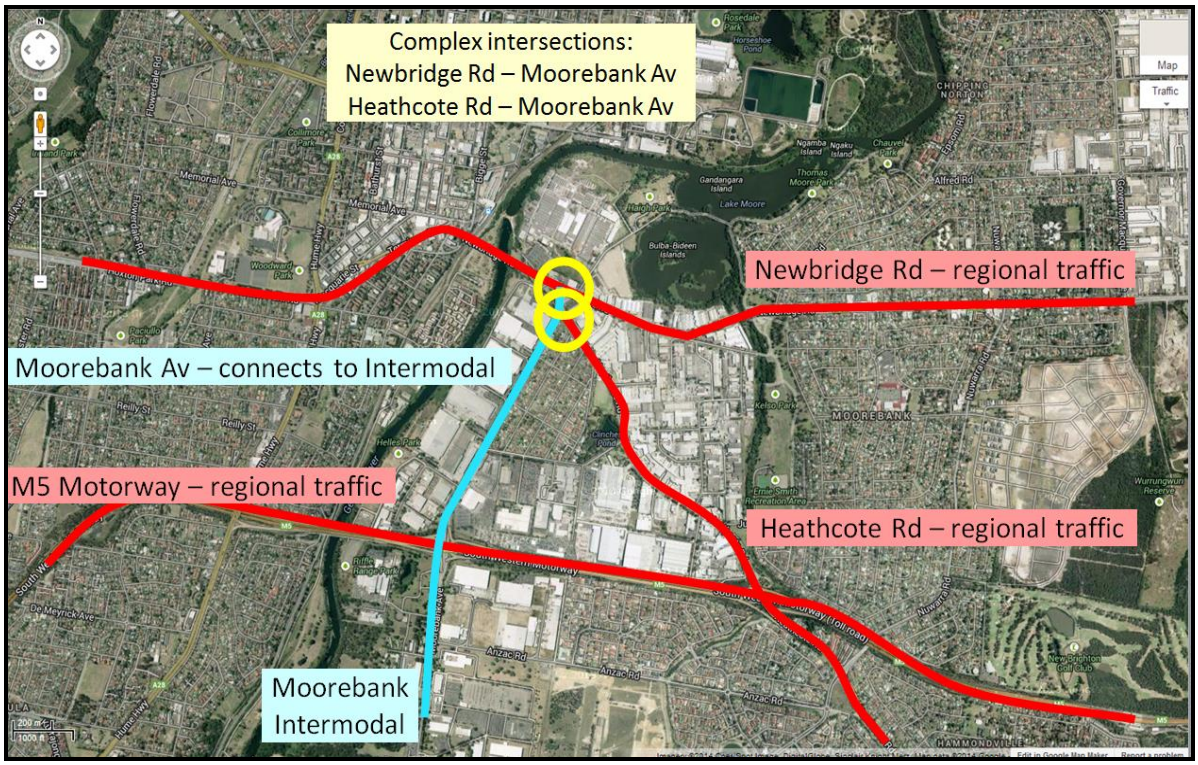
5.17.1 Moorebank Av – Newbridge Rd and Moorebank – Heathcote Rd Intersections

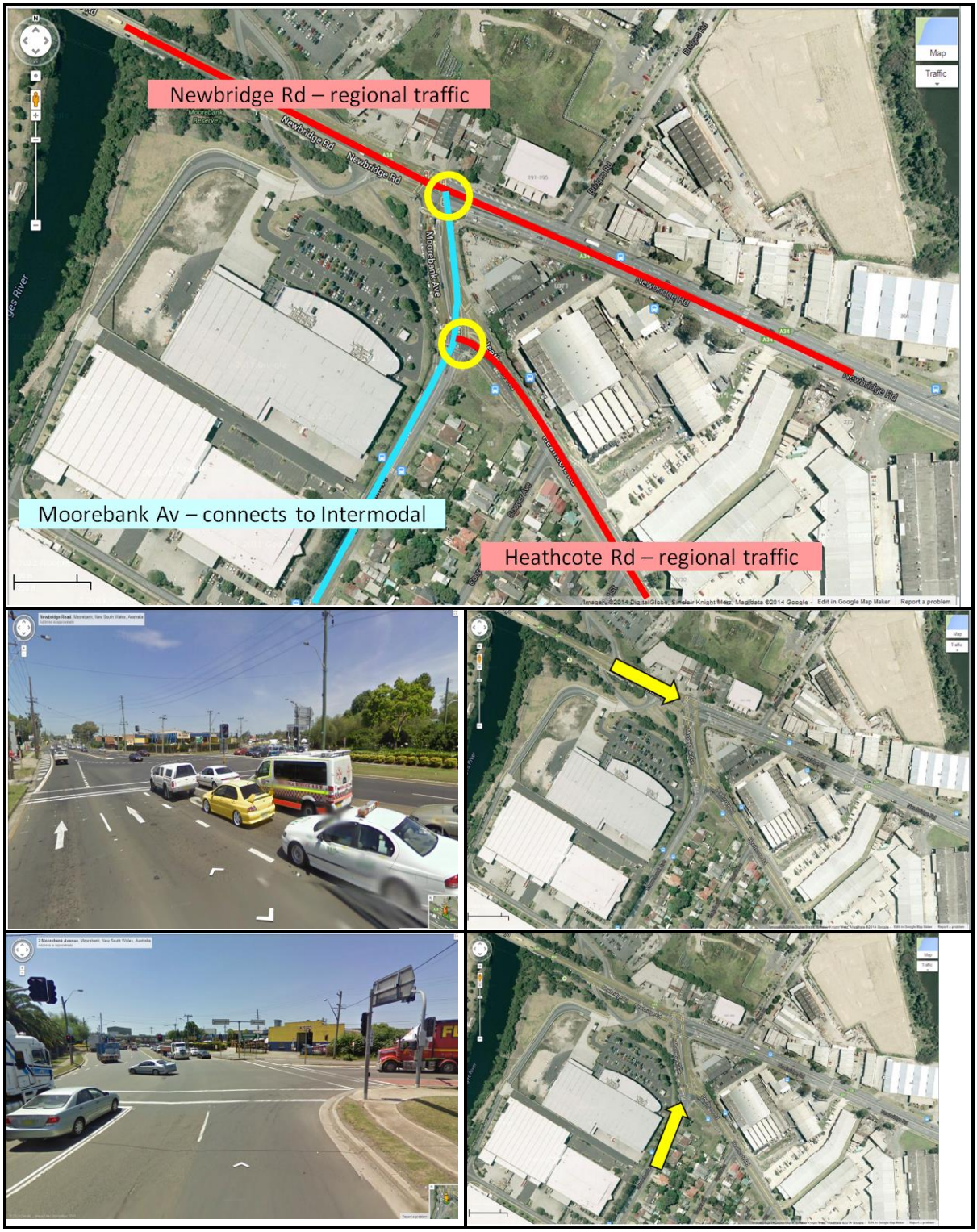
The Moorebank Av – Newbridge Rd and Moorebank – Heathcote Rd intersections are very close together.

Newbridge Rd is a major east-west route, and Moorebank Av is a major north-south route. Bus priority schemes operate on these two intersections.

The section on Moorebank Av, between Newbridge Rd and Heathcote Rd is used by both the regional traffic and the local traffic wishing to access the M5.

Figure A4 17 Critical intersections close together - expected to be heavily used by Intermodal traffic





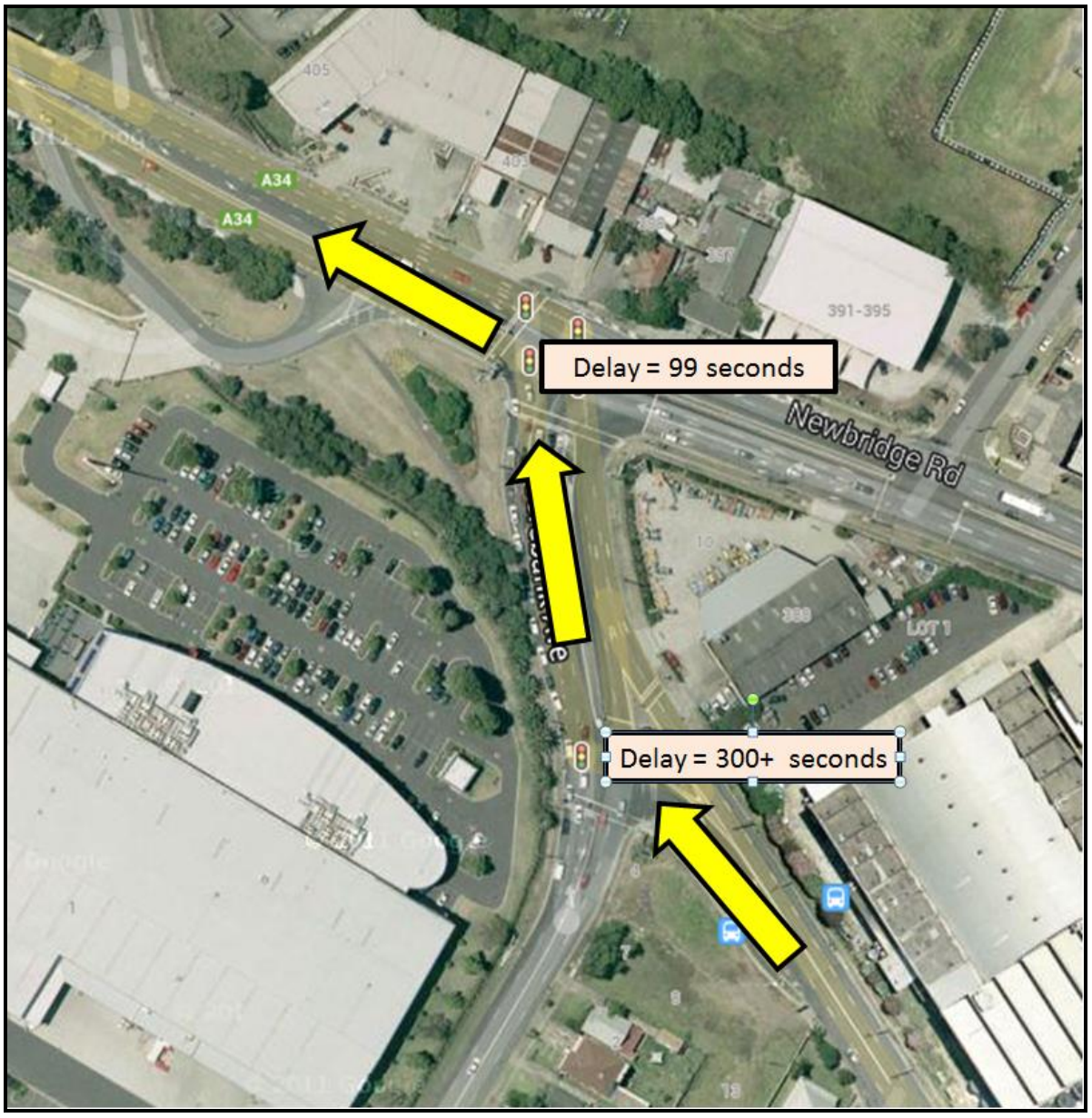
During the investigation of the M5 Motorway widening project, these intersections were identified as having extremely poor operating characteristics.

Any local resident knows that the queues on the Moorebank Av approaching Newbridge Rd, affects the operation of the Moorebank Av – Heathcote Rd intersection.

For and on behalf of our community
Narelle and Paul van den Bos
[redacted]

The SIMTA EIS states that 18% of its traffic will traverse these intersections. This means that in the afternoon, a quick trip into Liverpool, would take over 400 seconds (5 minutes and 40 seconds) from Heathcote Rd to Liverpool CBD.

Figure A4 18 SIMTA modelled delays for PM peak with SIMTA traffic



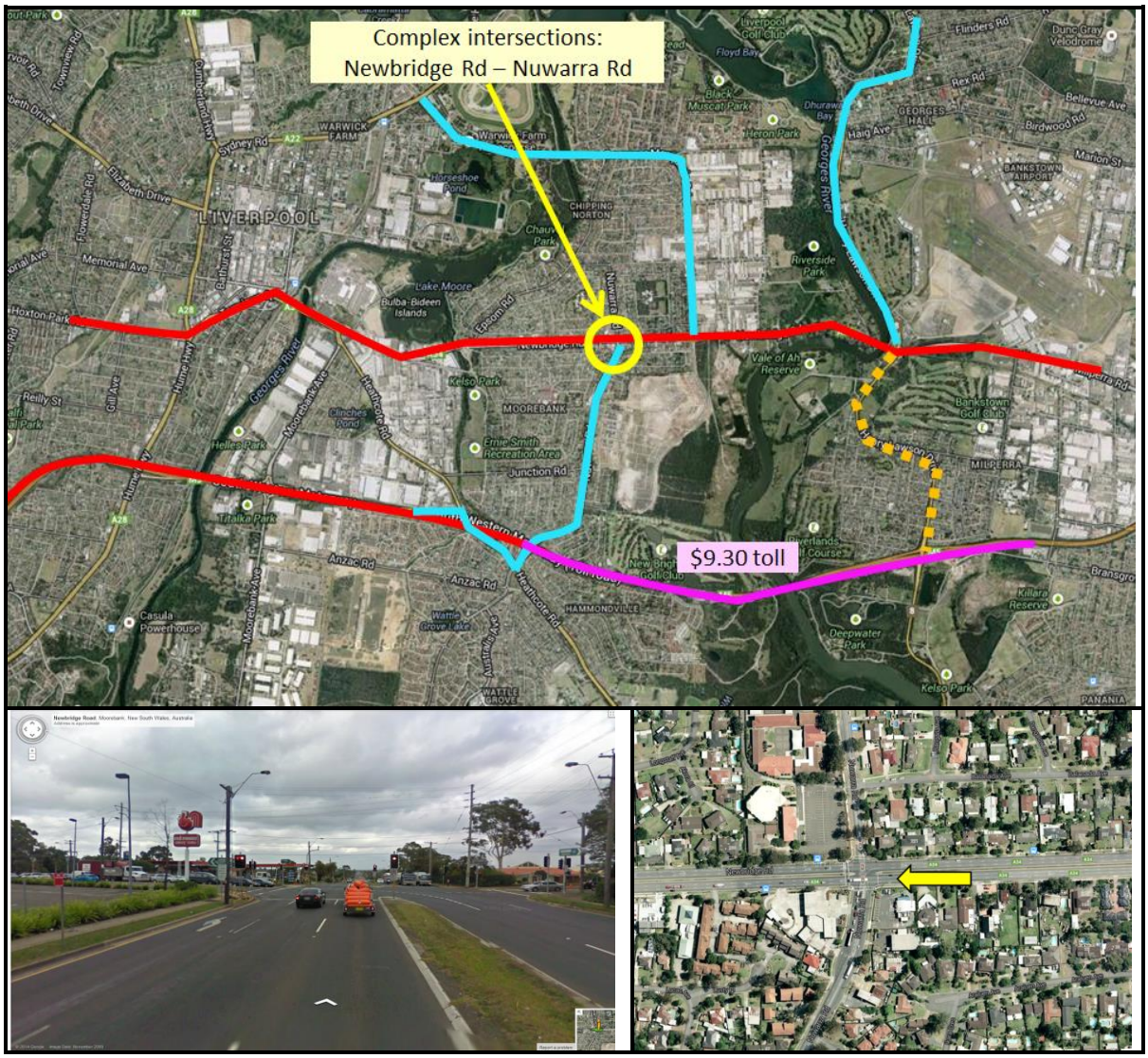
There is nearly a 7-minute delay through these intersections alone.

4.17.2 Newbridge Rd – Nuwarra Rd intersection

The intersection is on a hill, in a built-up area. The image below does not show this so well.

Commercial activity surrounds the intersection on the Nuwarra Rd side and a residential area on the opposite side.

Figure A4 19 Critical intersection - expected to be heavily used by Intermodal traffic



The SIMTA EIS states that with only the background traffic flowing through this intersection, there is an expected average vehicle delay of about 6 minutes and 15 seconds.

This delay is before the SIMTA traffic is added to the traffic flow calculations. The recycling plant being considered by the NSW Planning and Infrastructure, expects that about 50% of their trucks will use this intersection.

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