

Our Ref: 21395

4 May 2023

JCDecaux Australia & New Zealand
Level 6, 1 York Street
Sydney NSW 2000

Attention: Mr Timothy Brosnan

Dear Timothy,

**RE: M4 MOTORWAY HOMESBUSH BAY – S4.55 SUBMISSION
PROPOSED CHANGES TO DWELL TIME – TRANSPORT STATEMENT**

Preamble

JCDecaux is seeking approval to change the dwell time of the existing outbound digital signage above the M4 Motorway, Homebush from 45 seconds to 25 seconds. No other changes are proposed as part of the works.

The Transport Planning Partnership (TPPP) has been commissioned by JCDecaux to prepare a signage safety assessment of the proposal as part of S4.55 documentation. The findings of our assessment are provided herein.

Site Context

The existing outbound digital signage is located on the eastern side of the overhead railway bridge across the M4 Motorway in Homebush. The sign is located within a variable speed zone with a default limit of 90 km/h.

In the immediate vicinity of the site, the M4 Motorway has three travel lanes in the westbound direction with two on-ramps available to northbound and southbound drivers from Homebush Bay Drive.

An aerial image of the existing sign location (boxed in red) and surrounding environs is shown in Figure 1, while Figure 2 shows the existing digital sign location as viewed by motorists on the M4 Motorway.

Figure 1: Sign Location and its Surrounds



Source: nearmap (aerial dated 19 March 2023)

Figure 2: Existing Digital Signage



The existing sign has a display area of 42.21m² (12.530m width by 3.35m height plus a “JCDecaux” logo 1.083m width by 0.220m height). The visual display area (the screen alone) is 39.94m² (12.480m width by 3.200m height).

The current vertical clearance to the underside of the railway bridge is 5.970m.

The existing digital sign is currently used by JCDecaux to promote its sponsors and third-party advertising.

The design of the existing digital sign is not proposed to change as part of the works.

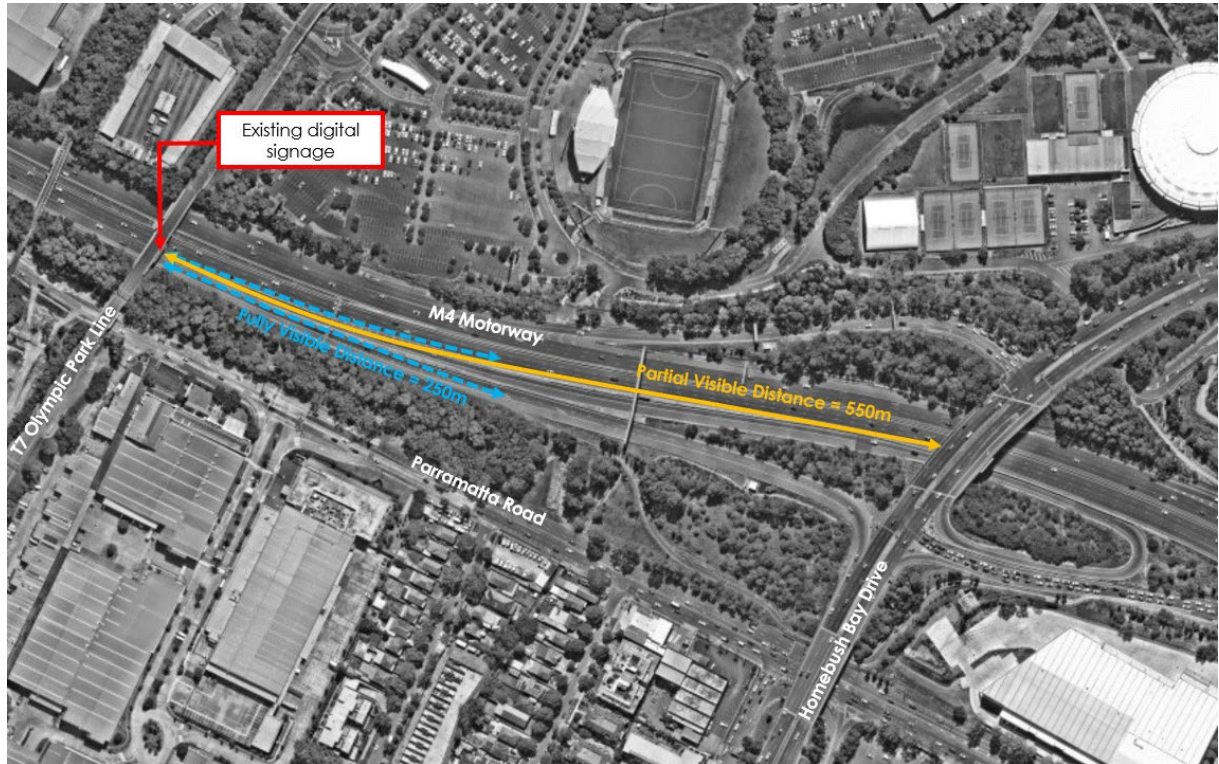
Signage Exposure

A site visit was undertaken on Tuesday 4 April 2023 to inspect driver sight distances on approach to the existing digital sign and observe any potential crash hazards likely to result from the proposed changes to the dwell time (i.e. from 45 seconds to 25 seconds).

A summary of the site investigation findings is as follows:

- The sign is partially visible approximately 550m from the sign. At this point, the sign is obscured by a Variable Message Sign (VMS) board. The sign becomes fully visible at approximately 250m and becomes readable less than 100m from the existing sign (about 60m). The exposure distance to the sign is shown in Figure 3, with visible and readable distances to the sign shown in Figure 4 and Figure 5.
- A variable speed limit sign board is provided prior to the existing digital sign. Two variable speed limit signs (far right) were “blackened out” during the site visit, as shown in Figure 6.
- The speed limit on Centenary Drive M4 Motorway on-ramp is 80km/h. It changes to 90km/h near the M4 Motorway.
- A “slow lane” is provided on the on-ramp from Centenary Drive to M4 Motorway. The “slow lane” was not observed to be used by any vehicles, including large vehicles during the site inspection. The “slow lane” is not utilised as the left turn from Centenary Drive on to the on-ramp directs motorists into the “fast lane” and the gradient of the Centenary Drive M4 Motorway on-ramp is downward, as shown in Figure 7.
- No significant road safety issues associated with the existing digital sign were observed.

Figure 3: Sign Exposure



Source: nearmap (aerial dated 19 March 2023)

Figure 4: Fully Visible Distance to Sign (250m)



Figure 5: Readable Distance < 100m



Figure 6: Existing VMS Boards



Figure 7: Centenary Drive M4 Motorway On-ramp



Crash History

Crash history has been assessed for the most recent five-year period for data collated and published by TfNSW pre-installation and post-installation of the digital signage along the M4 Motorway, Homebush, between the Sydney Trains overpass bridge and Homebush Bay Drive.

Crash history data has been assessed for the periods as follows:

- **Pre-operation period:** 24 July 2011 to 24 July 2016
- **Post operation period:** 25 July 2016 to 25 July 2021.

A comparison of crashes pre-installation and during operation of the digital signage is presented in Table 1. Crash maps provided by TfNSW are shown in Figure 8 and Figure 9, and enclosed in Attachment A.

Table 1: Crash History Summary on M4 Motorway, Homebush

Crash Type	No. of Crashes	Crash Severity (No. of Crashes)					
		Fatality	Serious Injury	Moderate Injury	Minor Injury	Uncategorised Injury	Non-casualty (tow-away)
Pre-Installation (24 July 2011 to 24 July 2016)							
Rear end (RUM 30)	35	0	1	6	5	0	23
Lane sideswipe (RUM 33)	1	0	0	1	0	0	0
Lane change right (RUM 34)	2	0	0	0	0	0	2
Other same direction (RUM 39)	1	0	0	0	1	0	0
Accident (RUM 62)	1	0	1	0	0	0	0
Object on road (RUM 66)	1	0	0	1	0	0	0
Off road left => obj (RUM 71)	2	0	0	0	0	0	2
Off road right => obj (RUM 73)	1	0	0	1	0	0	0
Object struct vehicle (RUM 91)	1	0	0	0	0	0	1
Sub-total	45	0	2	9	6	0	28
Total		17					
Operational Period (25 July 2016 to 25 July 2021)							
Rear end (RUM 30)	3	0	1	1	0	0	1
Other same direction (RUM 39)	1	0	0	0	0	0	1
Off rt/lft bnd => obj (RUM 85)	1	0	0	1	0	0	0
Out of control on bed (RUM 88)	1	0	0	1	0	0	0
Sub-total	6	0	1	3	0	0	2
Total		4					

Figure 8: Crash Locations at M4 Motorway, Homebush – Pre-Installation

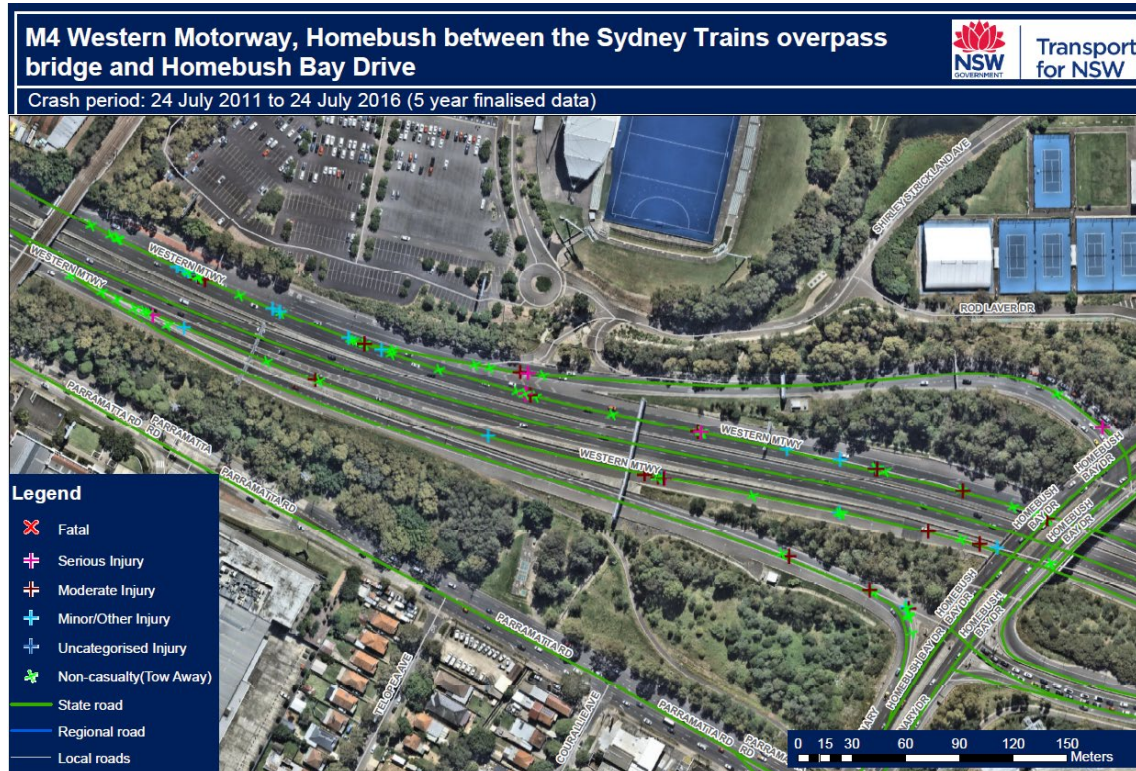
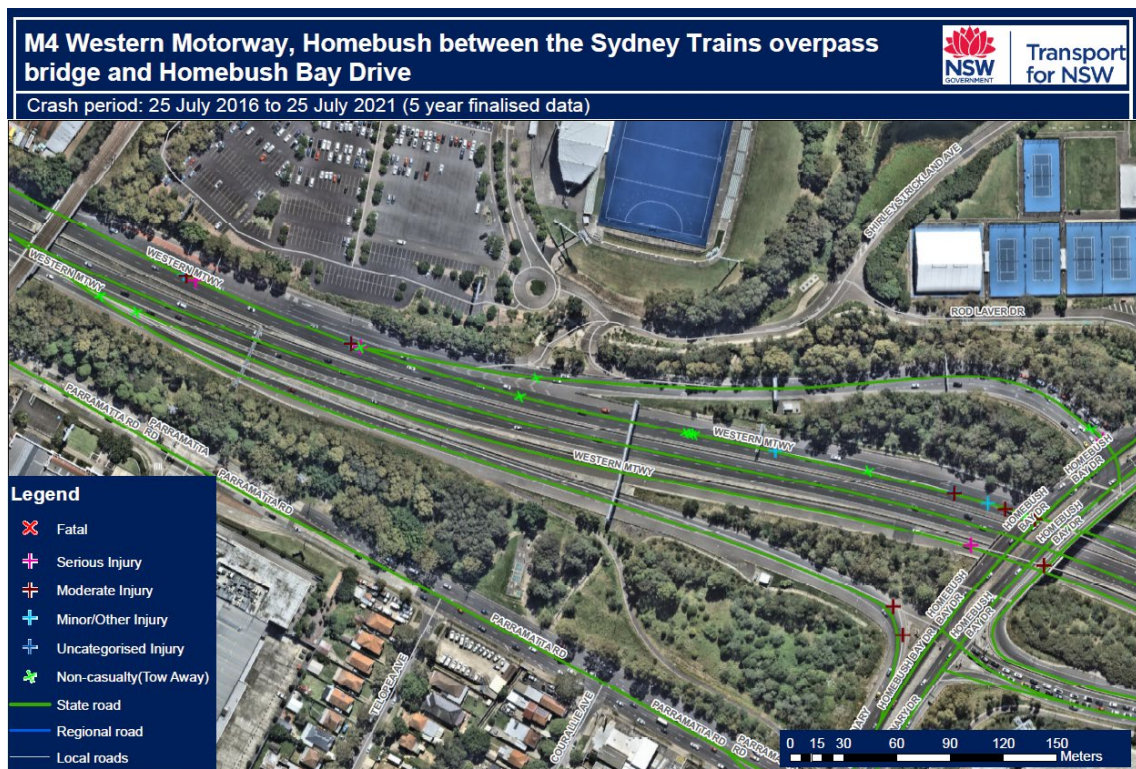


Figure 9: Crash Locations at M4 Motorway, Homebush – Operational



From Table 1, a total of 45 incidents occurred in the time period prior to the digital signage on the studied section of road. The majority of the crashes resulted in no injuries or casualties, that is 17 crashes resulting in injury, and 28 non-casualty crashes. It is also worth noting that some of these crashes occurred when the on-ramps to the M4 Motorway were being constructed between late 2015 and early 2017. During this time, drivers may be unaware of the changed traffic conditions, resulting in an increase in crashes.

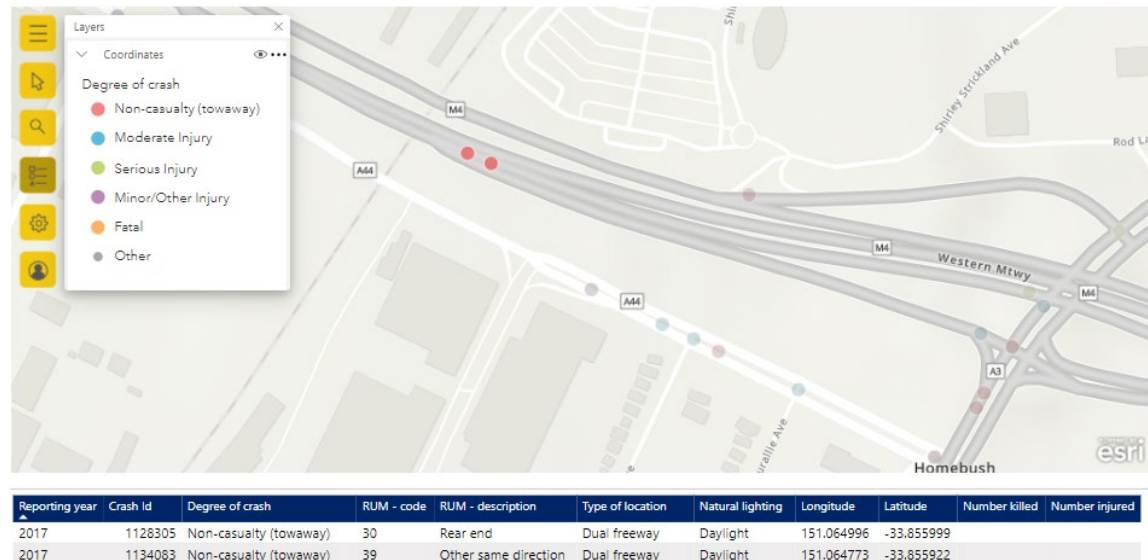
Once the digital signage was in operation, there was a total of six crashes recorded. Three out of the six crashes were recorded as rear-end. It is noted that the sign was operational during the final stages of construction of the on-ramps, which was completed in early 2017.

Overall, the number of crashes on the M4 Motorway east approach has not increased following the installation of the digital signage. It is however noted that the above data represents crash history for when the sign is first exposed at about 550m between the Sydney Trains overpass bridge and Homebush Bay Drive. The sign only becomes fully visible at about 250m on approach to the sign and readable at approximately 100m as shown in Figure 4 and Figure 5.

TTPP is of the view that road safety would generally only impact road users when the sign is readable (approx. 100m), and to a lesser extent when it is fully visible (approx. 250m). On this basis, the above crash data sample is considered quite large for the purpose of this assessment. It has however been included in this assessment to provide a robust assessment.

A review of the latest five-year crash history (2017-2021) data within 250m of the site (visible distance) from TfNSW's online interactive crash map indicates that there have been two crashes in the westbound direction along the M4 motorway when the sign was operational. These crashes were vehicles traveling in the same direction, rear end (RUM Code 30) and 'other in same direction' (RUM Code 39). Both crashes did not result in any injury or casualties, as shown in Figure 10.

Figure 10: Crash Locations at M4 Motorway within 250m of the Sign (Fully Visible Distance)



<https://roadsafety.transport.nsw.gov.au/statistics/interactivecrashstats/index.html>

In summary, the crash data does not indicate that the existing digital signage has had a negative impact on road safety, nor resulted in any decrease in road safety in the immediate vicinity of the sign.

Statutory Requirements

It is not proposed to change the design of the existing digital sign. The only change is the dwell time which will change from 45 seconds to 25 seconds.

The speed limit of the road is 90km/h and therefore, dwell times for image display must not be less than 25 seconds in accordance with the *NSW Transport Corridor Outdoor Advertising and Signage Guidelines*. The proposed changes to dwell time of the existing digital sign complies with this requirement.

Summary and Conclusion

Based on the analysis presented in this letter, it can be concluded that the proposed changes to dwell time of the existing digital signage above the M4 Motorway, Homebush, from 45 seconds to 25 seconds would be acceptable from a road safety perspective.

The existing design and location of the site are not proposed to change as part of these works. The proposed changes to dwell time will comply with design requirements as set out in the *NSW Transport Corridor Outdoor Advertising and Signage Guideline*.

We trust the above is to your satisfaction. Should you have any queries regarding the above or require further information, please do not hesitate to contact the undersigned on 8437 7800.

Yours Sincerely,



Wayne Johnson
Director

Encl.

Attachment A – Crash Maps

Attachment A

Crash Maps

Transport
for NSW

Legend

- ✖ Fatal
- ✚ Serious Injury
- ✚ Moderate Injury
- ✚ Minor/Other Injury
- ✚ Uncategorised Injury
- ✚ Non-casualty(Tow Away)
- State road
- Regional road
- Local roads

0 15 30 60 90 120 150 Meters

19/04/2023 Map produced by Greater Sydney, TfNSW

M4 Western Motorway, Homebush between the Sydney Trains overpass bridge and Homebush Bay Drive



Transport
for NSW

Crash period: 25 July 2016 to 25 July 2021 (5 year finalised data)

