

M4 Motorway, Homebush Digital Sign Safety Assessment

Prepared for:
JCDecaux

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The Transport Planning Partnership

M4 Motorway, Homebush

Digital Sign Safety Assessment

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APPENDICES

A. CONCEPT DESIGN PLANS

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1 Introduction

1.1 Overview

JCDecaux is seeking approval for the installation of a LED digital illuminated sign on an existing overhead railway bridge above the M4 Western Motorway (M4 Motorway) in Homebush. The proposed sign is to be located on the west side of the railway bridge, facing eastbound travel lanes on the M4 Motorway.

The Transport Planning Partnership (TPPP) has been commissioned by JCDecaux to undertake a signage safety assessment. This assessment has been carried out in accordance with Department of Planning's *Transport Corridor Outdoor Advertising and Signage Guidelines*, November 2017 (Guidelines) and State Environmental Planning Policy No. 64 – Advertising and Signage (SEPP 64). The Guidelines outline best practice for the planning and design of outdoor advertisements in transport corridors. The SEPP 64 sets out rules regarding outdoor advertising signage for permissible locations and exempt developments.

1.2 Purpose of this Report

The aim of this assessment is to determine the suitability of the proposed digital sign and provide recommendations on mitigation measures to alleviate impacts on the surrounding road network. This report sets out the findings of TPPP's signage safety assessment for the proposed digital signage above the M4 Motorway in Homebush.

The following items have been considered in this report:

- Potential for the signage to obstruct or distract a driver's view of the road, traffic control devices, and merge/diverge points at entry and exit ramps.
- Distance from upstream or downstream decision points such as merge and diverge points.
- Potential for the signage to distract at a critical or for an extended period of time.
- Location relative to the carriageway and its potential to be a physical obstruction for vehicles or other road users.
- Appropriate dwell times based on the speed environment.
- Location in relation to other signage.

1.3 References

In preparing this report, reference has been made to the following:

- An inspection of the signage location from a driving viewpoint along the M4 Motorway eastbound carriageway carried out on Friday, 29 October 2021.
- Austroads Guide to Road Design Part 3, Geometric Design, 2016.
- Transport Corridor Outdoor Advertising and Signage Guidelines, November 2017 by Department of Planning and Environment.
- State Environmental Planning Policy No. 64 – Advertising and Signage (SEPP 64).
- Concept design plans of the proposed digital sign dated 30/11/2021.
- Concept design plans of the existing static sign to be removed dated 07/02/22.

2 Proposal Description

2.1 Location Details

A new digital sign is proposed to be installed on the western side of the overhead railway bridge across the M4 Motorway in Homebush. There is an existing non-digital (static) sign on the railway bridge in the same location of the proposed digital sign. The existing static sign which is backlit, has a width of 12.660 m and a height of 3.350 m (42.41 m² area).

The sign is located within a variable speed zone with a default limit of 90 km/h. In the vicinity of the proposed sign, the M4 Motorway has four travel lanes in the eastbound direction. To the east of the sign is the A3 Homebush Bay Drive exit ramp.

There is an existing railway bridge located 88 m west of the subject site, as shown in Figure 2.1, which is no longer in use. The unused railway bridge has a static advertising sign on its western side. Following feedback at pre-DA stage prior to lodgement, the advertising sign on the unused railway bridge shall be removed as part of this proposal. This is reflected in the designer's impression in Figure 2.7.

An aerial image of the sign location and surrounding environs is shown in Figure 2.1.

Figure 2.1: Signage Location



Basemap source: Nearmap, aerial imagery dated 4 October 2021

2.2 Description of Proposed Signage

As per the SEPP 64, the advertising display area is defined as follows:

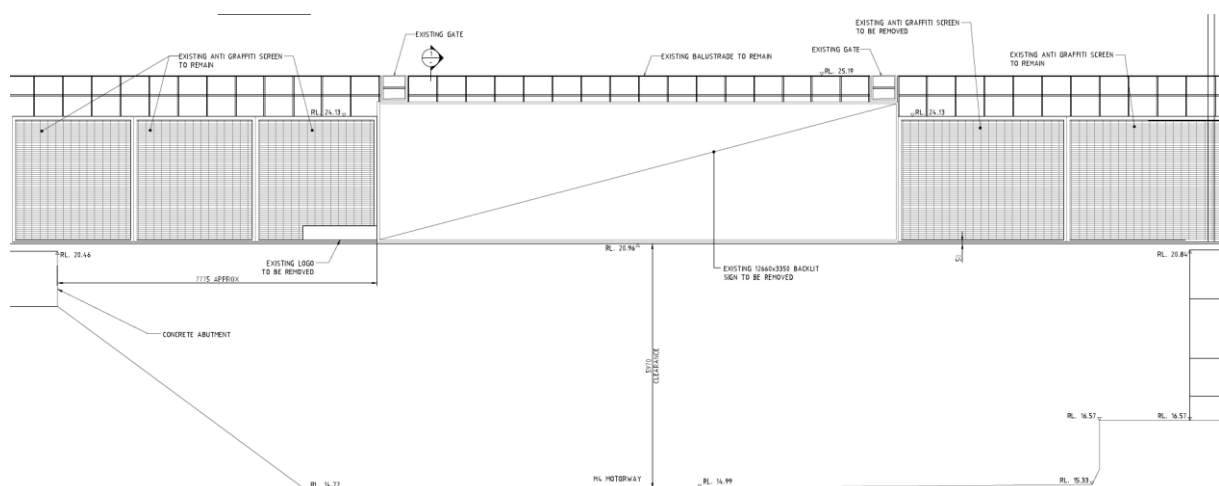
“advertising display area means, subject to subclause (2), the area of an advertisement or advertising structure used for signage, and includes any borders of, or surrounds to, the advertisement or advertising structure, but does not include safety devices, platforms or lighting devices associated with advertisements or advertising structures.”

On the above basis, the advertising display area of the proposed digital sign would be 42.21 m² (12.530 m width by 3.350 m height plus “JCDecaux” logo 1.083 m width by 0.220 m height). The visual display area (the screen alone) would be 39.94 m² (12.480 m width by 3.200 m height).

On either side of the visual display would be an anti-graffiti screen as per the existing arrangement. The current vertical clearance to the underside of the railway bridge would be maintained (5.970 m clearance). The general layout of the existing sign and proposed sign are illustrated in Figure 2.2 and Figure 2.3, respectively.

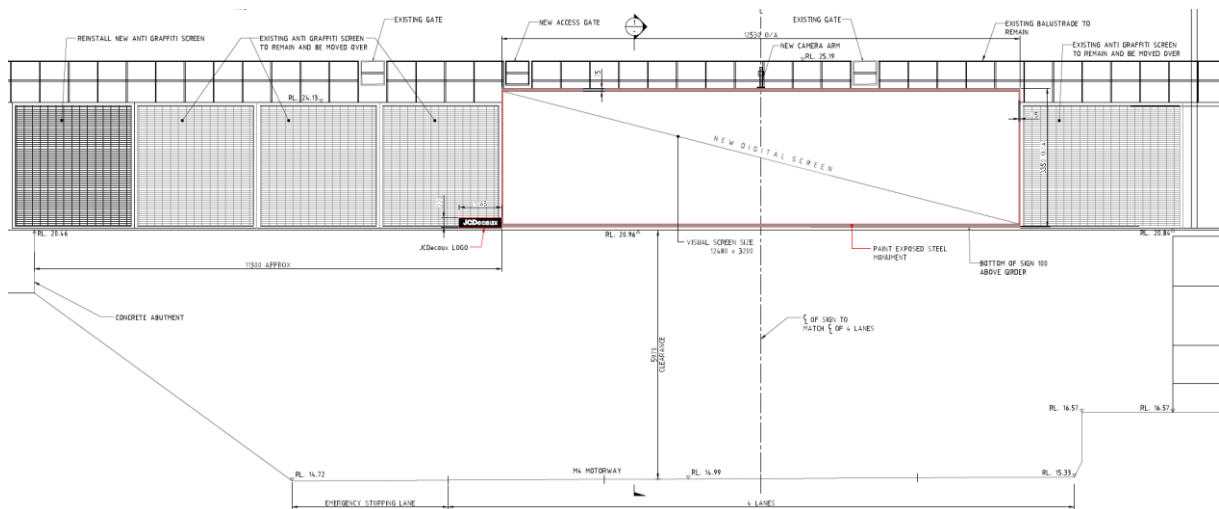
The digital sign with LED panel would be installed on the west side of the railway bridge to face the eastbound travel lanes on the M4 Motorway. The proposed digital sign would be used by JCDecaux to promote its sponsors and third-party advertising. The digital sign would contain text and images.

Figure 2.2: Existing Static Sign (Elevation Plan)



Source: JCDecaux dated 30/11/2021

Figure 2.3: Proposed Digital Sign (Elevation Plan)



2.3.1 M4 Motorway West Approach

The lane configuration on the M4 Motorway eastbound carriageway in the vicinity of the proposed digital sign is shown in Figure 2.5. Travel lanes are numbered 1 to 4 from left to right.

Figure 2.5: M4 Motorway West Approach Lane Configuration



Source: Photograph taken by TTPP on 29/10/2021

- There is an existing static sign on the overhead railway bridge where the digital sign is proposed to be located. The static sign would be removed to enable installation of the proposed digital sign.
- There is an existing static sign on the disused railway bridge that is located approximately 88 m west of the proposed digital sign.
- Treating the observed conditions during the site inspection as the typical conditions in the area, the digital sign would likely be visible from up to 200m across all lanes on approach.

Comparatively, the display area of the proposed digital sign would be slightly smaller than the existing static sign (39.68 m² versus 42.41 m², respectively). Notwithstanding this, the readable distance of the proposed digital sign would be similar to existing conditions. Having consideration for the text font and sizing presented by the designer's impression of the proposed digital sign, the **readable** distance for the proposed digital sign would be approximately 100 m in all travel lanes, where there are no vehicles travelling in adjacent lanes which could impede driver visibility to the sign.

- The digital sign would become out of driving view approximately 10m west of the proposed sign.

Figure 2.6 shows the existing static sign while Figure 2.7 illustrates the perspective of the designer's impression of the proposed digital sign.

The likely visible distance and readable distance in each lane on approach to the sign is shown in Figure 2.8 to Figure 2.11.

Figure 2.6: Existing Static Sign



Source: Photograph taken by TPP on 29/10/2021

Figure 2.7: Designer's Impression on West Approach



Source: JCDecaux

Figure 2.8: West Approach Sign Exposure – Lane 1



Source: Photograph taken by TPP dated 29/10/2021

Figure 2.9: West Approach Sign Exposure – Lane 2



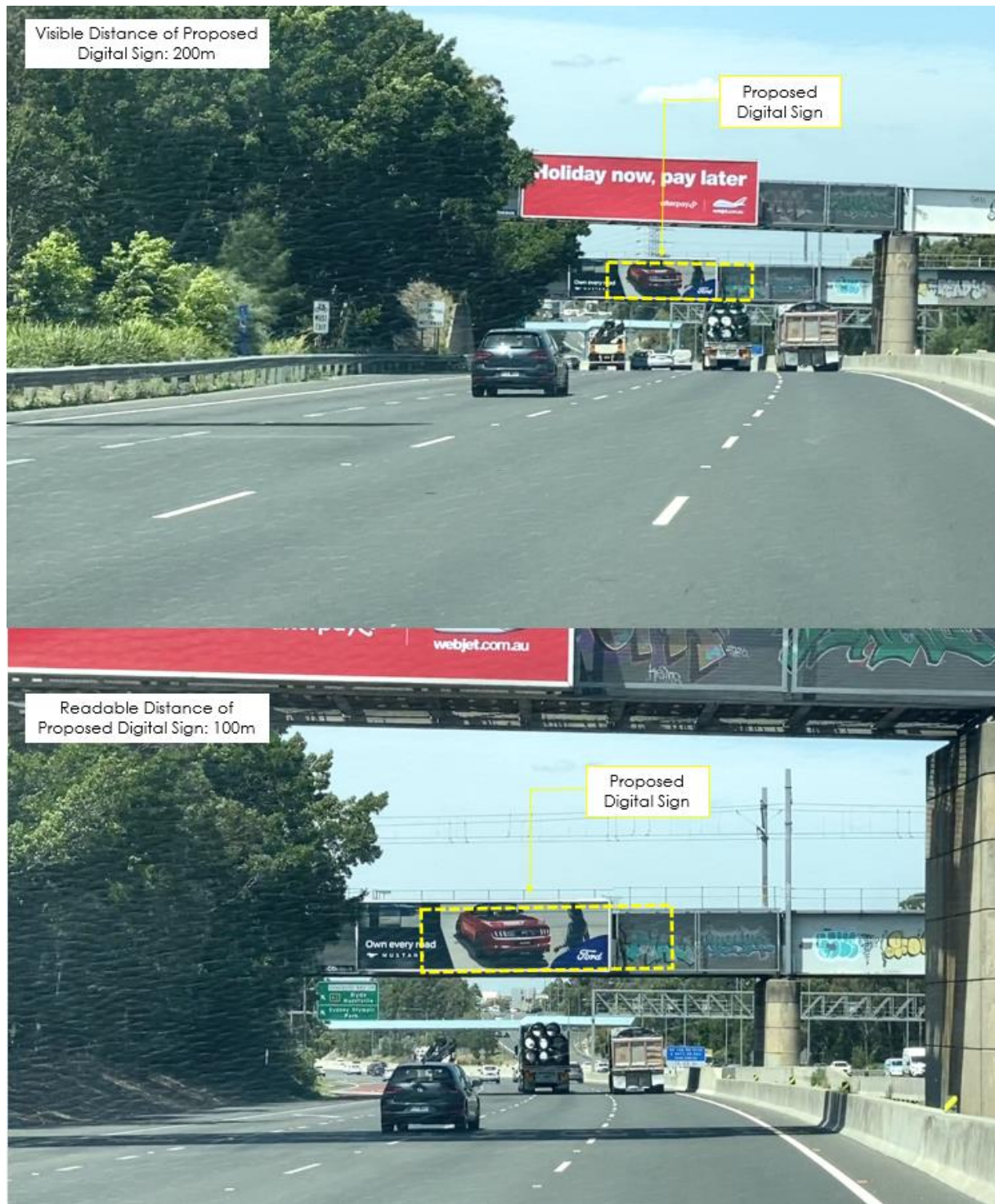
Source: Photograph taken by TPP dated 29/10/2021

Figure 2.10: West Approach Sign Exposure – Lane 3



Source: Photograph taken by TPP dated 29/10/2021

Figure 2.11: West Approach Sign Exposure – Lane 4



Source: Photograph taken by TPP dated 29/10/2021

2.4 Crash History

Historic crash data has been obtained from Transport for NSW (TfNSW) and assessed for incidents on the M4 Motorway west approach to the proposed digital sign (and thus, the existing static sign). Crash history has been assessed for the most recent five-year period for data collated and published by TfNSW. This period is between 1 January 2016 and 31 December 2020.

Crash data has been reviewed within the **readable** distance of the proposed sign location which is up to approximately 100 m away on the west approach, as observed on-site. One crash was recorded in the eastbound direction; namely, a rear end crash (RUM CODE 30) that resulted in a moderate injury.

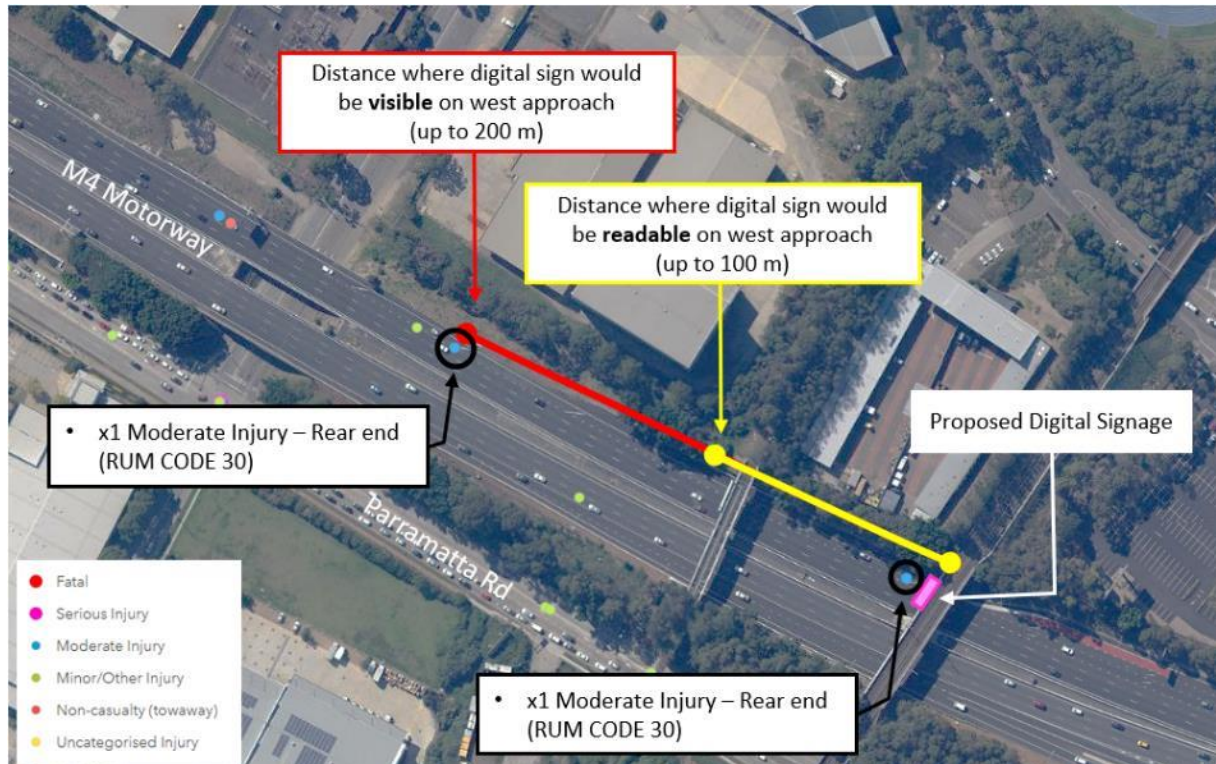
Having due diligence for the static advertising sign to the west of the proposed digital sign, crashes within the **visible** distance further to the readable distance have also been assessed. Between 100 m and 200 m away from the sign, there was one rear end crash which resulted in a moderate injury.

A summary of the crashes in the vicinity of the proposed digital sign is presented in Table 2.1, while the crash location and incident description are illustrated in Figure 2.12.

Table 2.1: Crash Type and Severity

Location	Crash Type	Crash Severity (No. of Crashes)				
		Fatality	Serious Injury	Moderate Injury	Minor Injury	Non-casualty (tow-away)
Within visible distance of digital sign on M4 Motorway (up to 200 m away from proposed digital sign)	Rear End (RUM CODE 30)			1		
Within readable distance of digital sign on M4 Motorway (up to 100 m away from proposed digital sign)	Rear End (RUM CODE 30)			1		
Total		Nil.	Nil.	2	Nil.	Nil.

Figure 2.12: Crash Locations in Recent 5-Year Period



Data Source: Transport for NSW

3 Statutory Requirements

This section of the report assesses the compliance with the safety assessment criteria established in the NSW Guidelines and State Environmental Planning Policy (SEPP) 64. It requires analysis as to whether the proposal would reduce the safety of:

- Any public roads
- Pedestrians and cyclists.
- Pedestrians by obscuring sight lines from public areas.

The proposed design has been assessed against the relevant statutory requirements and guidelines. In order to assess any new installation against the key safety assessment criteria, a series of detailed criteria are set out in Section 3.2 *Advertisements and Road Safety* of the NSW Guidelines.

3.1 SEPP 64 Schedule 1

Clauses 1 to 7 of the SEPP 64 – Schedule 1 refer to aspects that are unrelated to road safety, as outlined in Appendix B. However, Clause 8 is related to road safety, and thus, is covered under this signage safety assessment as follows:

- (a) Would the proposal reduce the safety for any public road?**
- (b) Would the proposal reduce the safety for pedestrians or bicyclists?**
- (c) Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas.**

Provision of a digital advertising sign on the western side of the railway bridge across the M4 Motorway is unlikely to reduce safety for motorists.

It is important to note that there is currently a static advertising sign at this location which has not been the cause of any significant crashes in the vicinity as per crash history information.

Notably, there is no cyclist (and pedestrian) access on the M4 Motorway between Holroyd and Strathfield.

3.2 Transport Corridor Outdoor Advertising and Signage Guidelines – Digital Signs Criteria (Section 2 of Guidelines)

The Transport Corridor Outdoor Advertising and Signage Guidelines specify criteria which are directly applicable to the assessment of digital signs. The criteria have been assessed in Table 3.1.

Some of the criteria are related to signage content and would need to be addressed by the operator. In addition, this criteria should be included as part of the consent conditions for the proposal to ensure future compliance.

Table 3.1: Digital Sign Criteria (Section 2 of Guidelines)

Criteria, for Signs greater than or equal to 20 m ²		Comments
A	<i>Each advertisement must be displayed in a completely static manner, without any motion, for the approved dwell time as per criterion (d) below.</i>	Relates to sign content only.
B	<i>Message sequencing designed to make a driver anticipate the next message is prohibited across images presented on a sign and across a series of signs.</i>	Relates to sign content only.
C	<i>The image must not be capable of being mistaken:</i> i. <i>for a prescribed traffic control device because it has, for example, red, amber or green circles, octagons, crosses or triangles or shapes or patterns that may result in the advertisement being mistaken for a prescribed traffic control device, or</i> ii. <i>as text providing driving instructions to drivers.</i>	Relates to sign content only.
D	<i>Dwell times for image display are:</i> i. <i>10 seconds for areas where the speed limit is below 80 km/h.</i> ii. <i>25 seconds for areas where the speed limit is 80 km/h and over.</i>	As detailed in Section 3.3.2.2 a dwell time of 25 seconds would be suitable for the proposed digital sign on the west approach.
E	<i>The transition time between messages must be no longer than 0.1 seconds, and in the event of image failure, the default image must be a black screen.</i>	An almost instantaneous transition is likely to reduce the additional distraction potential for digital signs. It is assumed that this operational requirement would be met.
F	<i>Luminance levels must comply with the requirements in Section 3 (Transport Corridor Advertising Signage Guidelines).</i>	This sign would be classified as Zone 3. Zone 3 covers areas with generally medium off-street ambient lighting e.g. small to medium shopping/ commercial centres.
G	<i>The images displayed on the sign must not otherwise unreasonably dazzle or distract drivers without limitation to their colouring or contain flickering or flashing content.</i>	It is assumed that this operational requirement would be met.
H	<i>The amount of text and information supplied on a sign should be kept to a minimum (e.g. no more than a driver can read at a short glance).</i>	Relates to sign content only.
I	<i>Any signs that is within 250 metres of a classified road and is visible from a school zone must be switched to a fixed display during school zone hours.</i>	The sign is <u>not</u> visible from within a school zone, and therefore, would not be required to be conditioned as so.

Criteria, for Signs greater than or equal to 20 m ²		Comments
J	Each sign proposal must be assessed on a case by case basis including replacement of an existing fixed, scrolling or tri-vision sign with a digital sign and in the instance of a sign being visible from each direction, both directions for each location must be assessed on their own merits.	Noted.
K	At any time, including where the speed limit in the area of the sign is changed, if detrimental effect is identified on road safety post installation of a digital sign, RMS reserves the right to re-assess the site using an independent RMS-accredited road safety auditor. Any safety issues identified by the auditor and options for rectifying the issues are to be discussed between RMS and the sign owner and operator.	Noted.
L	Sign spacing should limit drivers' view to a single sign at any given time with a distance of no less than 150m between signs in any one corridor. Exemptions for low speed, high pedestrian zones or CBD zones would be assessed by RMS as part of their concurrence role.	The sign would be located less than 150 m from an existing static sign.
M	Signs greater than or equal to 20sqm must obtain RMS concurrence and must ensure the following minimum vertical clearances: i. 2.5m from lowest point of the sign above the road surface if located outside the clear zone ii. 5.5m from lowest point of the sign above the road surface if located within the clear zone (including shoulders and traffic lanes) or the deflection zone of a safety barrier if a safety barrier is installed. If attached to road infrastructure (such as an overpass), the sign must be located so that no portion of the advertising sign is lower than the minimum vertical clearance under the overpass or supporting structure at the corresponding location.	The bottom of the proposed sign would be aligned with the underside of the overhead railway bridge. Refer to Appendix A for the concept design plan showing dimensions.
N	An electronic log of a sign's operational activity must be maintained by the operator for the duration of the development consent and be available to the consent authority and/or RMS to allow a review of the sign's activity in case of a complaint.	Noted.
O	A road safety check which focuses on the effects of the placement and operation of all signs over 20sqm must be carried out in accordance with Part 3 of the RMS Guidelines for Road Safety Audit Practices after a 12-month period of operation but within 18 months of the signs installation. The road safety check must be carried out by an independent RMS-accredited road safety auditor who did not contribute to the original application documentation. A copy of the report is to be provided to RMS and any safety concerns identified by the auditor relating to the operation or installation of the sign must be rectified by the applicant. In cases where the applicant is the RMS, the report is to be provided to the Department of Planning and Environment as well.	Noted.

3.3 Transport Corridor Outdoor Advertising and Signage Guidelines (Section 3 of Guidelines)

3.3.1 Sign Location Criteria

3.3.1.1 Road Clearance

(a) The advertisement must not create a physical obstruction or hazard. For example:

- i. **Does the sign obstruct the movement of pedestrians or bicycle riders? (e.g. telephone kiosks and other street furniture along roads and footpath areas).**
- ii. **Does the sign protrude below a bridge or other structure so it could be hit by trucks or other tall vehicles? Will the clearance between the road surface and the bottom of the sign meet appropriate road standards for that particular road?**
- iii. **Does the sign protrude laterally into the transport corridor so it could be hit by trucks or wide vehicles?**

The digital sign will not physically obstruct any vehicle, pedestrian and cyclist movements as it will be placed on the western side of the railway bridge above the M4 Motorway. The digital sign will not protrude below the underside of the railway bridge and hence the vertical clearance will be maintained as per existing conditions.

The design plan for the digital sign and its positioning on the west side of the railway bridge is shown in Appendix A.

(b) Where the sign supports are not frangible (breakable), the sign must be placed outside the clear zone in an acceptable location in accordance with Austroads Guide to Road Design (and RMS supplement) or behind an RMS-approved crash barrier.

The digital sign would be installed on the side of the railway bridge, which is positioned above the carriageway and outside of the clear zone. Hence, it would not require an RMS-approved crash barrier.

(c) Where a sign is proposed within the clear zone but behind an existing RMS-approved crash barrier, all its structures up to 5.8m in height (relative to the road level) are to comply with any applicable lateral clearances specified by Austroads Guide to Road Design (and RMS supplements) with respect to dynamic deflection and working width.

The digital sign boards would not be located within the clear zone.

The existing available vertical clearance between the road surface and the underside of the railway bridge would be maintained.

(d) All signs that are permitted to hang over roads or footpaths should meet wind loading requirements as specified in AS1170.1 and AS1170.2. All vertical clearances as specified above are regarded as being the height of the sign when under maximum vertical deflection.

As part of the detailed design phase, the digital sign would be designed in accordance with Australian Standards AS1170.2 and AS1170.2 to meet the requirements for wind loading, whilst having consideration for height of the sign boards when under maximum vertical deflection.

3.3.1.2 Line of Sight

(a) An advertisement must not obstruct the drivers view of the road particularly of other vehicles, bicycle riders or pedestrians at crossings.

Based on TfNSW's Cycleway Finder online app, there is no cyclist (and pedestrian) access along this section of the M4 Motorway.

Also, with the sign placed above the carriageway, it would not obstruct a drivers view of the road.

(b) An advertisement must not obstruct a pedestrian or cyclist's view of the road.

Cyclist and pedestrian access on the M4 Motorway is prohibited within the vicinity of the proposed digital sign. Therefore, this would not be a concern.

(c) The advertisement should not be located in a position that has the potential to give incorrect information on the alignment of the road. In this context, the location and arrangement of signs' structures should not give visual clues to the driver suggesting that the road alignment is different to the actual alignment. An accurate photo-montage should be used to assess this issue.

The sign would be positioned at the same height as the existing railway bridge which would not impede a driver's visibility on the alignment of the road. The proposed digital sign would not indicate misleading information or information contrary to the existing roadway. This is supported by the designer's impression of the proposed sign as depicted in Figure 2.7.

(d) The advertisement should not distract a driver's attention away from the road environment for an extended length of time. For example:

- i. The sign should not be located in such a way that the driver's head is required to turn away from the road and the components of the traffic stream in order to view its display and/or message. All drivers should still be able to see the road when viewing the sign, as well as the main components of the traffic stream in peripheral view.**
- ii. The sign should be oriented in a manner that does not create headlight reflection in the driver's line of sight. As a guideline, angling a sign five degrees away from right angles to the driver's line of sight can minimise headline reflections. On a curved road alignment, this should be checked for the distance measured back from the sign that a car would travel in 2.5 seconds at the design speed.**

The proposed digital sign would be located within the motorist's line of sight of M4 Motorway eastbound carriageway with visible distances of up to 200 m. In addition, the digital sign would be placed above the road carriageway and hence motorists would not be required to turn their heads when viewing the digital sign.

The proposed digital sign would be located within a driver's line of sight on the M4 Motorway west approach with a visible distance similar to the existing sign (up to 200 m) and readable distance (up to 100 m). In addition, the digital sign would be placed above the road, therefore, a driver would not be required to turn away from the road in order to view the digital sign.

3.3.1.3 Proximity to Decision Making Points and Conflict Points

(a) A sign should not be located:

- i. Less than the safe sight distance from an intersection, merge points, exit ramp, traffic control signal or sharp curves.**

As referenced in the Guide to Road Design, Part 3, sight distance refers to the distance required to enable a driver to react and stop before reaching a hazard. This distance is dependent on the operating (85th percentile) speed of the road, road gradient and other road characteristics.

For the purpose of this assessment, an operating speed of 90 km/h has been used to calculate the minimum SSD. A 90 km/h speed has been adopted based on the regular signposted speed limit along the M4 Motorway as well as the speed limit which motorists were observed to be driving during the site inspection. According to Austroads, the minimum safe stopping sight distance for a 90 km/h speed zone is 139 m. It is noted that the M4 Motorway has a variable speed limit, and therefore, the speed limit may reduce below 90 km/h in special circumstances, in which case, the SSD would also reduce.

The lane allocation of Lane 1 changes from a through travel on the main motorway carriageway to the Homebush Bay Drive exit lane 260 m west of the proposed digital sign. At this location, the proposed sign (and existing sign) would not be visible. The majority of vehicles required to change lanes either to continue straight on the motorway or exit at

Homebush Bay Drive occurs when the sign is not readable, and therefore, the sign would not be expected to impact drivers at such time.

Nonetheless, the proposed digital sign would be located 148m west of the Homebush Bay Drive exit diverge point as shown in Figure 3.1. This falls outside of the safe stopping distance (139 m), and therefore, is in accordance with the Guidelines.

Figure 3.1: Safe Sight Distance of Diverge Point



Advance warning of the Homebush Bay Drive exit includes delineation in the form of pavement arrows within the exit lane for a distance of 400 m on approach to the diverge point, as well as two advance directional signs located 1 km and 500 m in advance of the diverge point. Irrespective of the proposed digital sign, the advance warning delineation arrangement provides ample notice to motorists of the Homebush Bay Drive exit ahead. This arrangement is shown in Figure 3.2, Figure 3.3 and Figure 3.4.

Figure 3.2: Advance Delineation

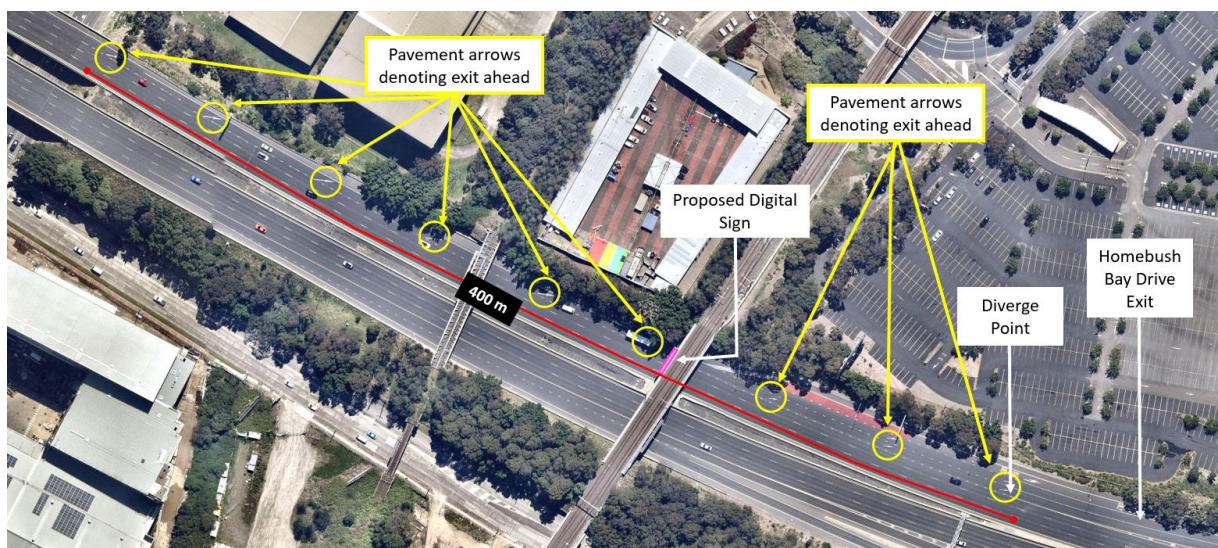


Figure 3.3: Advance Directional Signage – 1 km Prior to Diverge Point



Source: Photograph taken by TPPP dated 29/10/2021

Figure 3.4: Advance Directional Signage – 500 m Prior to Diverge Point



Source: Photograph taken by TPPP dated 29/10/2021

- ii. Less than the safe stopping sight distance from a marked foot crossing, pedestrian crossing, pedestrian refuge, cycle crossing, cycleway facility or hazard within the road environment.**

The proposed digital sign is not located within the safe stopping sight distance of pedestrian and cyclist crossing facilities.

- iii. So that it is visible from the stem of a T-intersection.**

The proposed digital sign location is not visible from the stem of a T-intersection.

(b) The placement of a sign should not distract a driver at a critical time. In particular, signs should not obstruct a driver's view:

- i. Of a road hazard,**
- ii. To an intersection,**
- iii. To a prescribed traffic control device (such as traffic signals, stop or give way signs or warning signs)**
- iv. To an emergency vehicle access point or Type 2 driveways (wider than 6-9 metres) or higher.**

The proposed digital sign would be located on the M4 Motorway where there are no traffic signals, stop or give way signs. In addition, the proposed digital sign location is not in the vicinity of any intersections or emergency vehicle access points.

It is noted that there is an existing static sign at the proposed digital sign location and an additional static sign approximately 88m west. Given the small number of crash incidents recorded in the recent five years with the presence of existing static signs, it is expected that the proposed digital sign would not increase the risk of traffic and road safety at this location of the M4 Motorway.

3.3.1.4 Sign Spacing

(a) Sign spacing should limit drivers view to a single view to a single sign at any given time with a distance of no less than 150m between signs in any one corridor. Exemptions for low speed, high pedestrian zones or CBD zones will be assessed by RMS as part of their concurrence role.

Currently, there is a static sign on the unused railway bridge which is located 88 m east of the proposed digital sign location.

As a result of feedback at pre-DA stage, the advertising sign on the unused railway bridge shall be removed as part of this proposal. This is reflected in the designer's impression in Figure 2.7. Following this, drivers travelling westbound on approach to the proposed signal sign would be exposed to a single sign at this location.

3.3.2 Sign Design and Operation Criteria

3.3.2.1 Advertising Signage and Traffic Control Devices

- (a) The advertisement must not distract a driver from, obstruct or reduce the visibility and effectiveness of directional signs, traffic signals, prescribed traffic control devices, regulatory signs or advisory signs or obscure information about the road alignment.**
- (b) The advertisement must not interfere with stopping sight distance for the road's design speed or the effectiveness of a traffic control device. For example:**
 - i. Could the advertisement be construed as giving instructions to traffic such as 'Stop', 'Halt' or 'Give Way'?**
 - ii. Does the advertisement imitate a prescribed traffic control device?**
 - iii. If the sign is in the vicinity of traffic lights, does the advertisement use red, amber or green circles, octagons, crosses or triangles or shapes or patterns that may result in the advertisement being mistaken for a traffic signal?**

Details of the advertisement/s are not yet known since the project is still within the early design stage. However, based on the example advertisement that is shown in the designer's impression (Figure 2.7) the sign would not display colours and shapes which could be mistaken for traffic signals.

Notwithstanding this, it is recommended that the content of the proposed sign be reviewed against Table 5 of the Guidelines to avoid any content that may be construed as imitating a traffic control device.

3.3.2.2 Dwell Time and Transition Time

- (a) Each advertisement must be displayed in a completely static manner, without any motion, for the approved dwell time as per criterion (b) below**
- (b) Dwell times for the image display must not be less than:**
 - i. 10 seconds for areas where the speed limit is below 80km/h**
 - ii. 25 seconds for areas where the speed limit is 80km/h and over.**
- (c) Any digital sign that is within 250 metres of a classified road and is visible from a school zone must be switched to a fixed display during school zone hours.**
- (d) Digital signs must not contain animated or video/movie style advertising or messages of image failure, the default image must be a black screen.**
- (e) The transition time between messages must be no longer than 0.1 seconds, as in the event of image failure, the default image must be a black screen.**

The digital sign is proposed to contain text and images. Based on the Guidelines, the minimum dwell time for content displayed on the digital sign would be 25 seconds.

The proposed digital sign is not located near a school zone.

3.3.2.3 Illumination and Reflectance

- (a) Luminance levels comply with the requirements in Table 6 in Transport Corridor Outdoor Advertising and Signage Guidelines**
- (b) The image displayed on the sign must not otherwise unreasonably dazzle or distract drivers without limitation to their colouring or contain flickering or flashing content.**

Section 3.3.3 of the Guidelines details assessment criteria to ensure that illumination and reflectance qualities of the sign do not cause a road safety hazard. It is understood that these criteria would be addressed in a separate specialist report prepared by a qualified consultant.

3.3.2.4 Interaction and Sequencing

- (a) The advertisement must not incorporate technology which interacts with in-vehicle electronic devices or mobile devices. This includes interactive technology or technology that enables opt-in direction communication with road users.**
- (b) Message sequencing designed to make a driver anticipated the next message is prohibited across images presented on a single sign and across a series of signs.**

The proposed sign would not contain interactive technology or technology that enables opt-in direction communication with motorists. The digital sign would not be designed to make motorists anticipate information.

4 Conclusion

JCDecaux is proposing to remove an existing static sign and install a new digital sign on the west side of the overhead railway bridge above the M4 Motorway in Homebush.

The proposal has been assessed against the statutory requirements for digital advertising signage outlined in the following:

- Section 3, Advertisements and Road Safety of the NSW Guidelines
- State Environmental Planning Policy (SEPP) 64.

The following findings and conclusions are made from the signage safety assessment:

- Two crashes have occurred on the M4 Motorway west approach to the digital sign for the most recent five years (for which TfNSW has aggregated data).
- The proposed digital sign would not obstruct and/or reduce visibility of any traffic control devices, signage, road alignment or cyclists.
- The proposed sign would not give incorrect information on the alignment of the road.
- The sign would be located within a driver's peripheral vision for motorists travelling on the M4 Motorway west approach, and does not require motorists to turn their head away from the roadway ahead.
- The proposed sign would not be located within the safe stopping distance to traffic signals, crossings or directional/ information signage or any other decision point.
- Following feedback at pre-DA stage prior to lodgement, the advertising sign on the unused railway bridge (west of the proposed digital sign) shall be removed as part of this proposal.
- The M4 Motorway has a regular posted speed limit of 90 km/h. As such, a dwell time of 25 seconds for the digital sign is suitable.
- The proposed sign would not compromise safety for road users in the vicinity.

Having consideration for the signage safety assessment and discussions presented within this report, the analysis suggests that the installation of a digital sign on the west side of the railway bridge across the M4 Motorway would be acceptable.

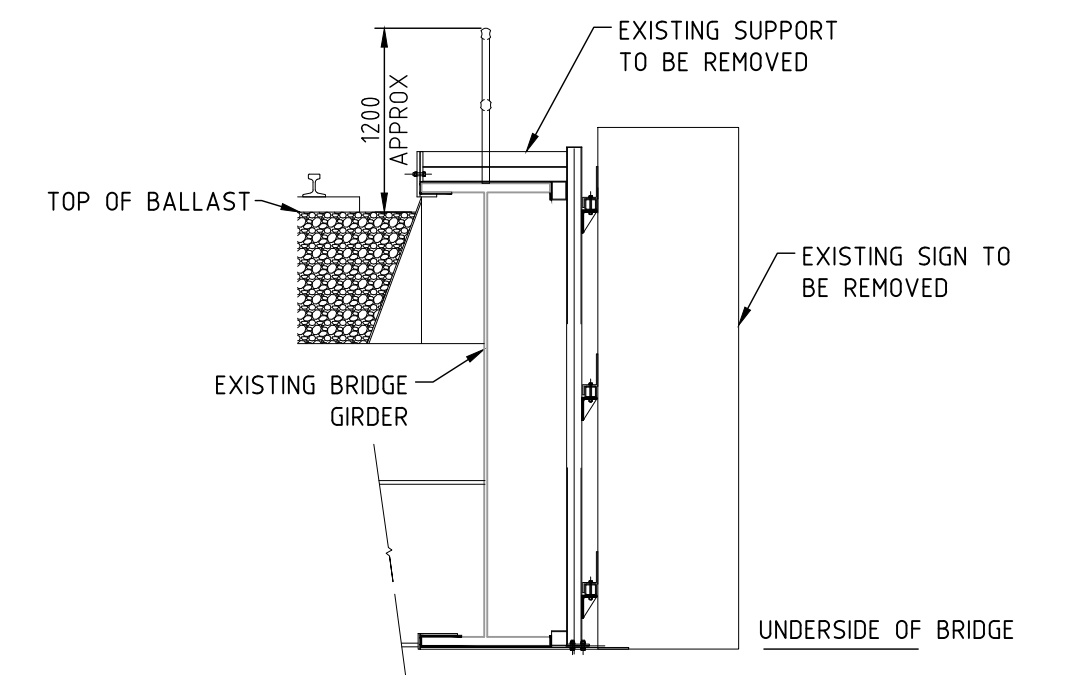
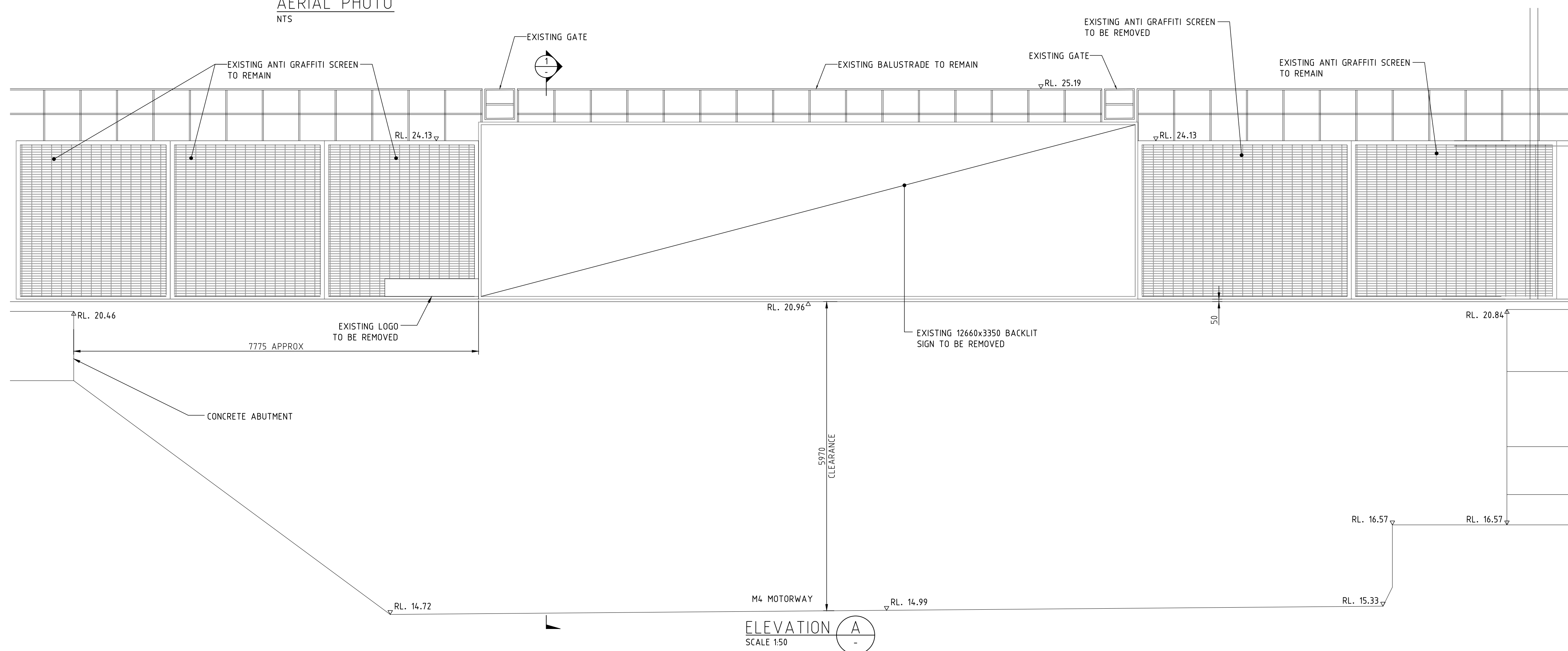
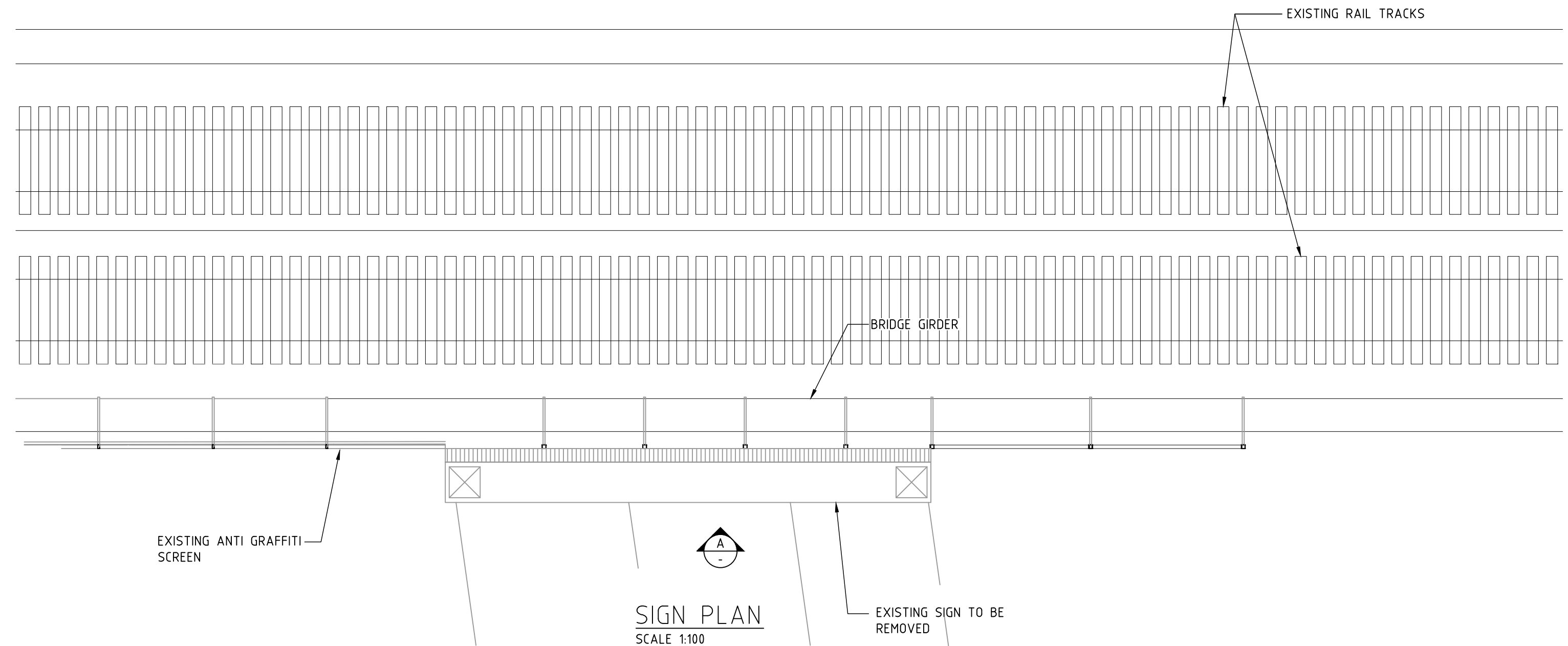
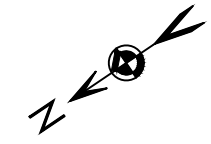
Appendix A

Concept Design Plans



AERIAL PHOTO
NTS

LOCATION OF
EXISTING SIGN



SECTION
SCALE 1:50

NOT FOR CONSTRUCTION

ISS	DATE	COMMENT
A	12/11/21	ISSUED FOR APPROVAL
B	18/11/21	ISSUED FOR APPROVAL
C	26/11/21	ISSUED FOR APPROVAL
D	30/11/21	ISSUED FOR APPROVAL



Suite 1, Building 8, 49 Frenchs Forest Road East,
Frenchs Forest, NSW 2086
P.O. Box 652, Forestville, NSW 2087
Ph: 02 9451 3455 Fax: 02 9451 3466
Email: info@dbce.com.au
ABN 23 039 013 724

CLIENT:
JCDecaux

PROJECT:
M4 MOTORWAY - OVERPASS HOMEBUSH, SUPERSITE

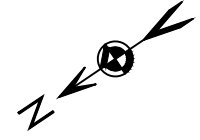
TITLE:
**EXISTING SIGN
GENERAL ARRANGEMENT &
SITE PLAN**

DRAWN A.T.	DESIGN J.L.	DATE: NOV 21
JOB NO: 21258	DWG NO: DA01	
SCALE @ A1: AS SHOWN	REV: D	



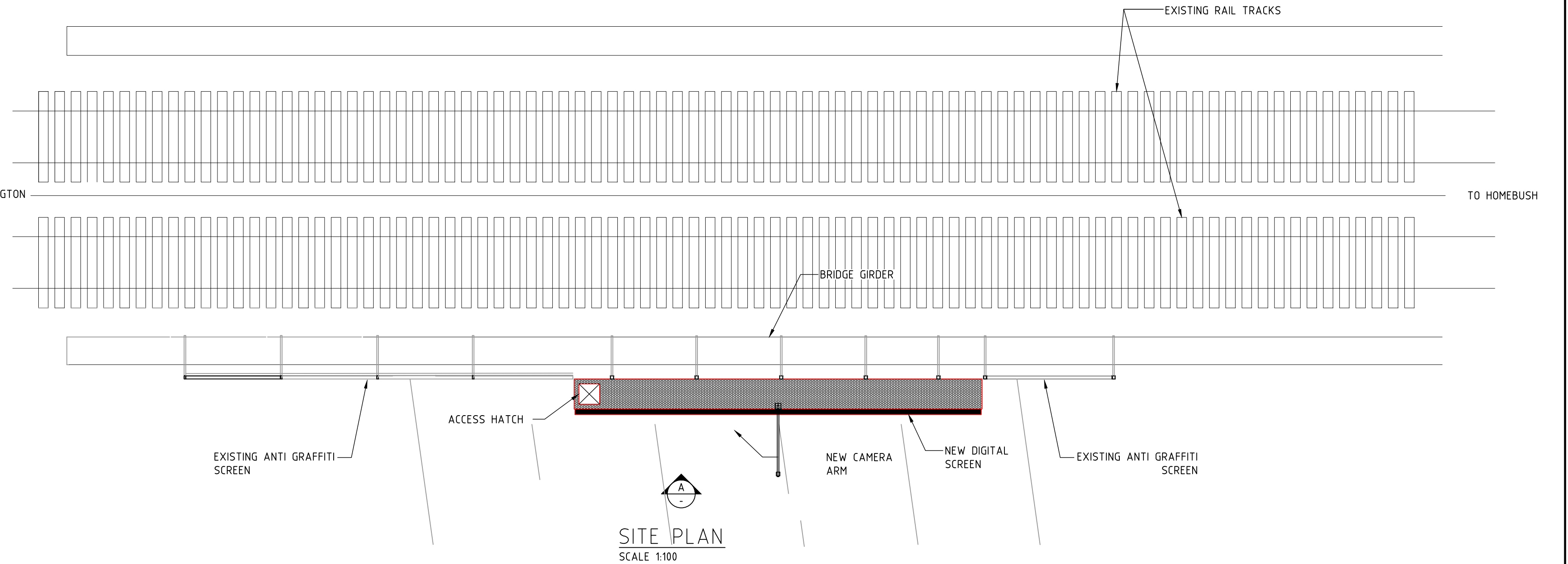
AERIAL PHOTO
NTS

LOCATION OF NEW SIGN

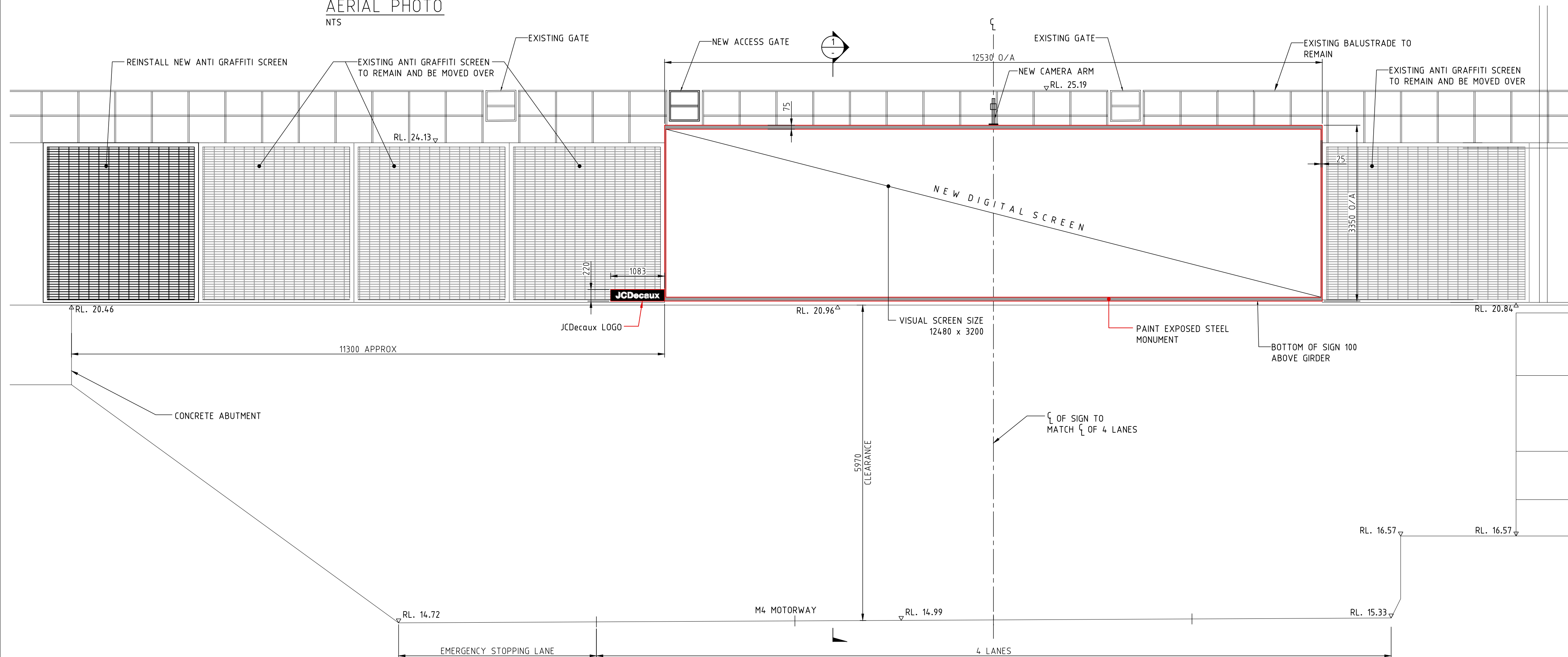


FROM FLEMMINGTON

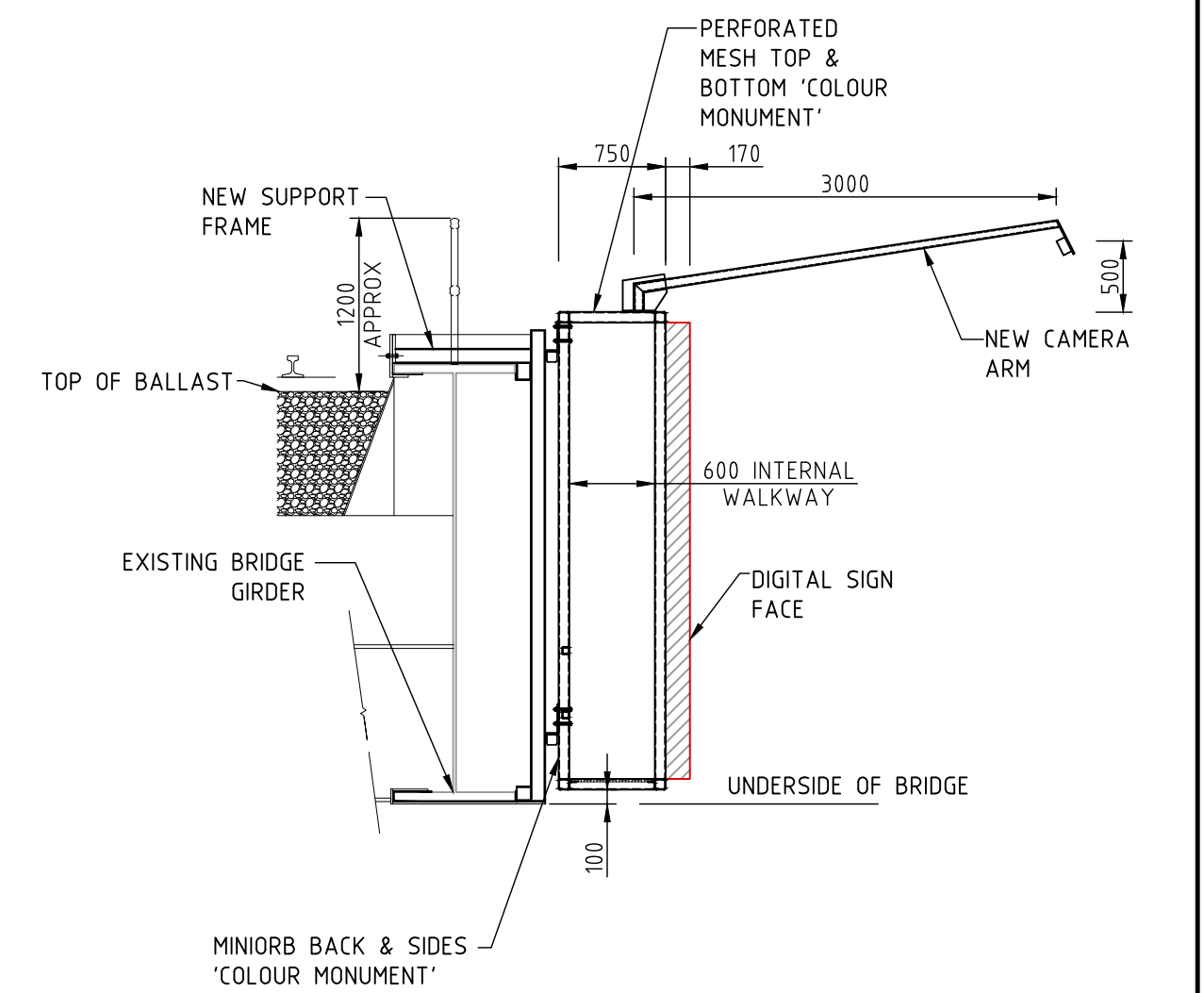
TO HOMEBUSH



SITE PLAN
SCALE 1:100



ELEVATION A
SCALE 1:50



SECTION 1
SCALE 1:50

NOT FOR CONSTRUCTION

ISS	DATE	COMMENT
A	12/11/21	ISSUED FOR APPROVAL
B	18/11/21	ISSUED FOR APPROVAL
C	26/11/21	ISSUED FOR APPROVAL
D	29/11/21	ISSUED FOR APPROVAL
E	30/11/21	ISSUED FOR APPROVAL



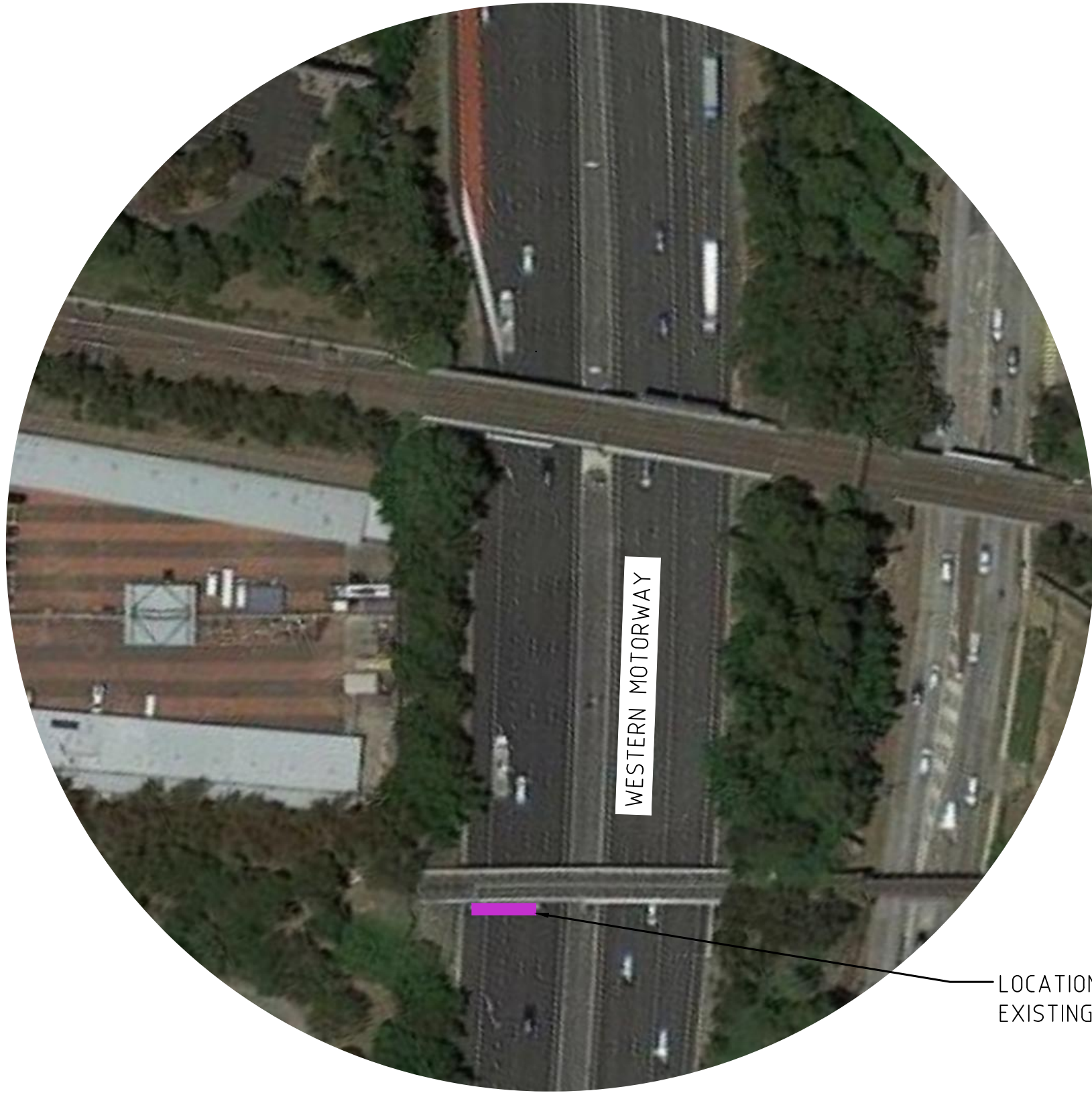
Suite 1, Building 8, 49 Frenchs Forest Road East,
Frenchs Forest, NSW 2086
P.O. Box 652, Forestville, NSW 2087
Ph: 02 9451 3455 Fax: 02 9451 3466
Email: info@dbce.com.au
ABN 23 039 013 724

CLIENT:
JCDcaux

PROJECT:
M4 MOTORWAY - OVERPASS HOMEBUSH, SUPERSITE

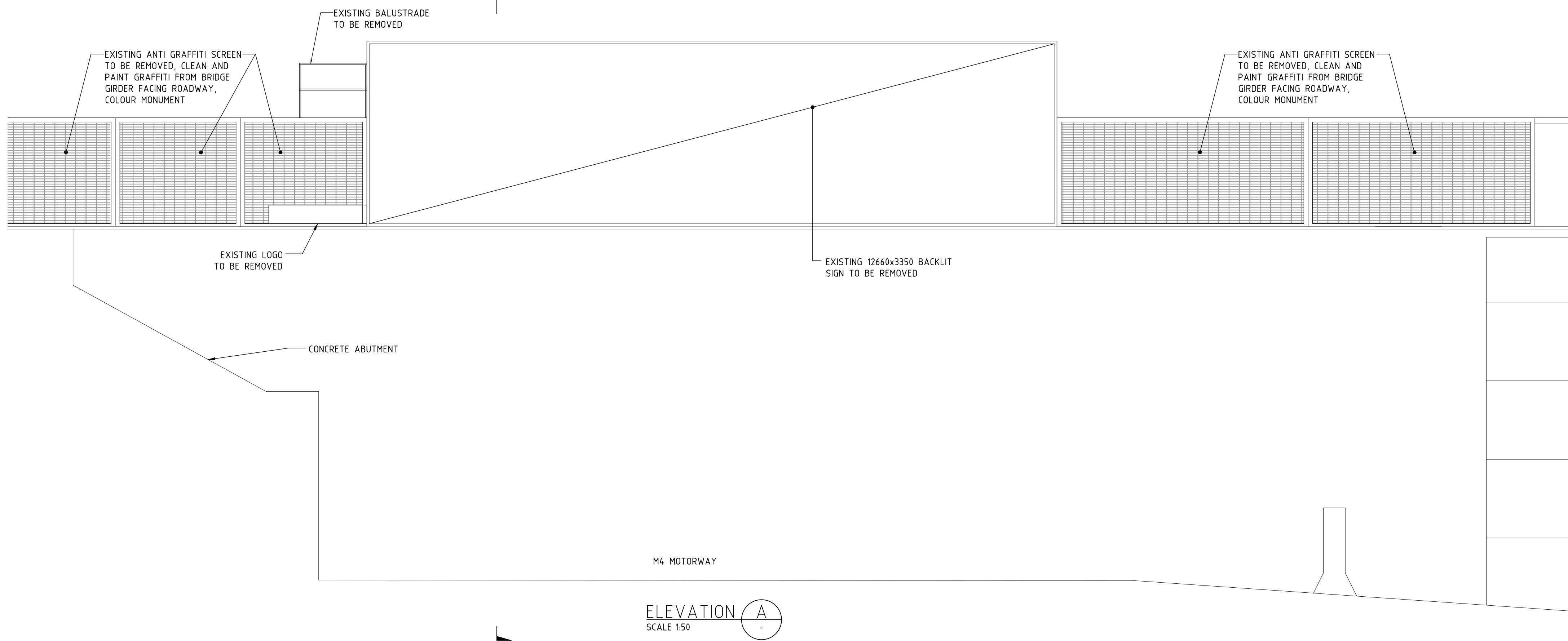
TITLE:
**PROPOSED SIGN
GENERAL ARRANGEMENT &
SITE PLAN**

DRAWN A.T.	DESIGN J.L.	DATE: NOV 21
JOB NO: 21258	DWG NO: DA02	
SCALE @ A1: AS SHOWN	REV: E	

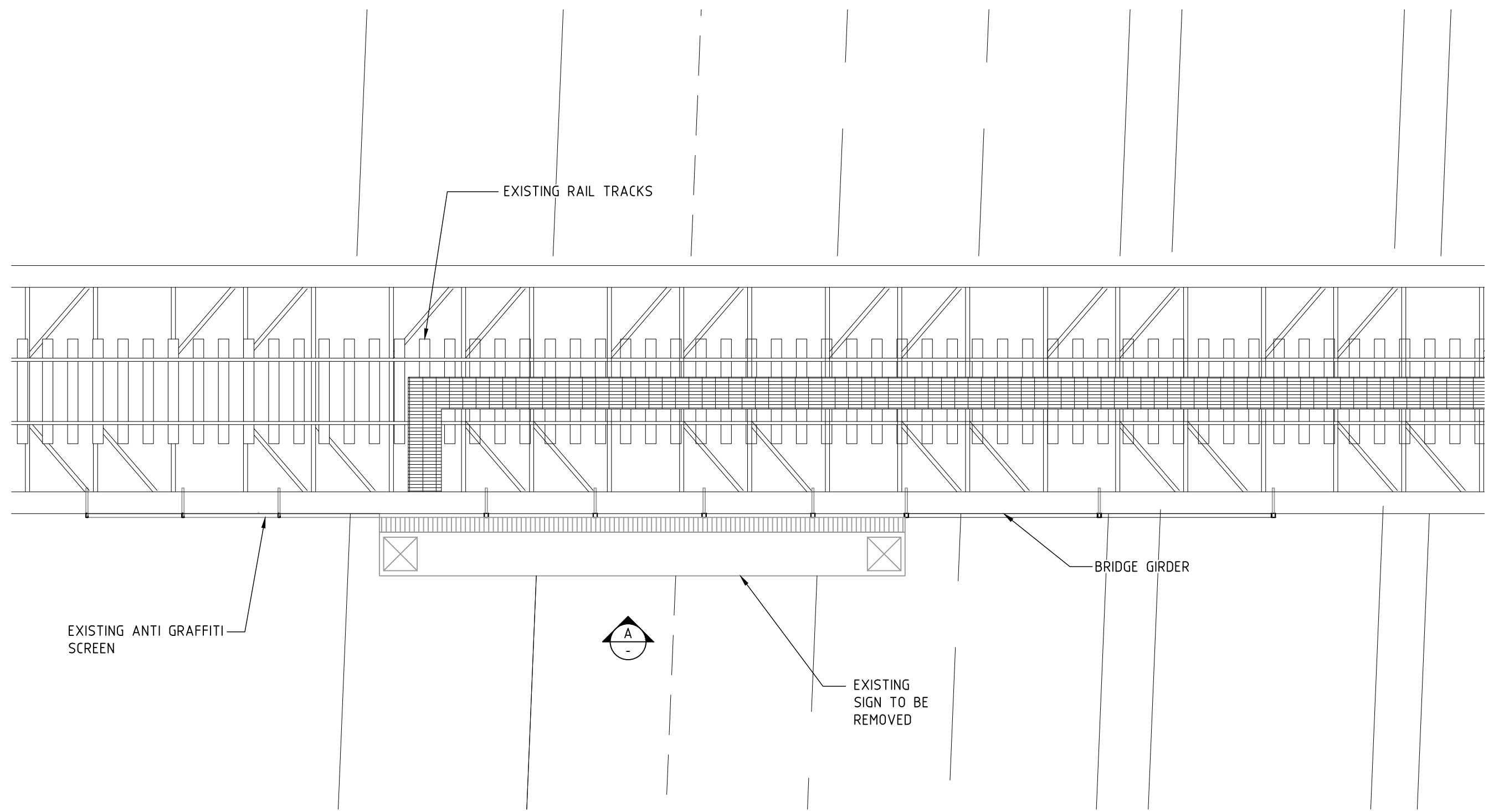


LOCATION OF
EXISTING SIGN

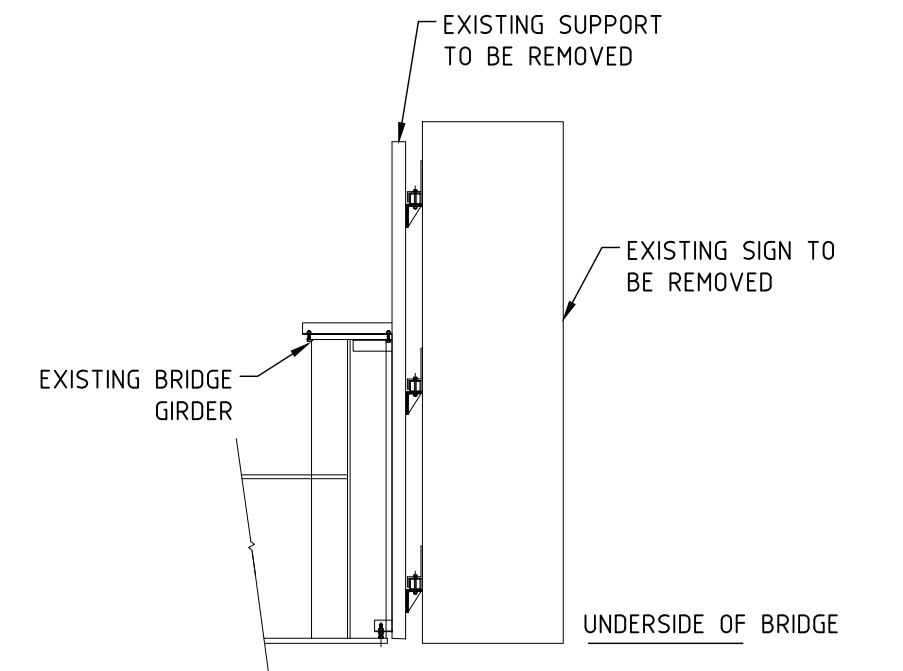
AERIAL PHOTO
NTS



ELEVATION A
SCALE 1:50



SIGN PLAN
SCALE 1:100



SECTION 1
SCALE 1:50

NOT FOR CONSTRUCTION

ISS	DATE	COMMENT
A	07/02/22	ISSUED FOR APPROVAL



Suite 1, Building 8, 49 Frenchs Forest Road East,
Frenchs Forest, NSW 2086
P.O. Box 652, Forestville, NSW 2087
Ph: 02 9451 3455 Fax: 02 9451 3466
Email: info@dbce.com.au
ABN 23 039 013 724

CLIENT:
JCDecaux
PROJECT:
M4 MOTORWAY - OVERPASS HOMEBUSH, SUPERSITE

TITLE:
EXISTING SIGN
GENERAL ARRANGEMENT &
SITE PLAN

DRAWN A.T	DESIGN J.L	DATE:	FEB'22
JOB NO:	21258	DWG NO:	DA03
SCALE @ A1: AS SHOWN		REV:	A

Appendix B

State Environmental Planning Policy (SEPP 64) – Schedule 1

State Environmental Planning Policy No 64—Advertising and Signage (2001 EPI 199)

Current version for 22 January 2021 to date (accessed 16 November 2021 at 12:18)

New South Wales

Schedule 1 Assessment criteria

(Clauses 8, 13 and 17)

1 Character of the area

- Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located?
- Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?

2 Special areas

- Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?

3 Views and vistas

- Does the proposal obscure or compromise important views?
- Does the proposal dominate the skyline and reduce the quality of vistas?
- Does the proposal respect the viewing rights of other advertisers?

4 Streetscape, setting or landscape

- Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?
- Does the proposal contribute to the visual interest of the streetscape, setting or landscape?
- Does the proposal reduce clutter by rationalising and simplifying existing advertising?
- Does the proposal screen unsightliness?
- Does the proposal protrude above buildings, structures or tree canopies in the area or locality?
- Does the proposal require ongoing vegetation management?

5 Site and building

- Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located?
- Does the proposal respect important features of the site or building, or both?
- Does the proposal show innovation and imagination in its relationship to the site or building, or both?

6 Associated devices and logos with advertisements and advertising structures

- Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?

7 Illumination

- Would illumination result in unacceptable glare?
- Would illumination affect safety for pedestrians, vehicles or aircraft?
- Would illumination detract from the amenity of any residence or other form of accommodation?
- Can the intensity of the illumination be adjusted, if necessary?
- Is the illumination subject to a curfew?

8 Safety

- Would the proposal reduce the safety for any public road?
- Would the proposal reduce the safety for pedestrians or bicyclists?
- Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?

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