

Saunders Street, Pyrmont Digital Signage Safety Assessment

Prepared for:

JCDecaux

6 May 2022

The Transport Planning Partnership



Saunders Street, Pyrmont Digital Signage Safety Assessment

Client: JCDecaux Version: V04 Date: 6 May 2022

TTPP Reference: 21395

Quality Record

Version	Date	Prepared by	Reviewed by	Approved by	Signature
V01	04/03/22	Kenta Lam	Santi Botross	Wayne Johnson	Wem
V02	15/03/22	Kenta Lam	Santi Botross	Wayne Johnson	WEm
V03	28/03/22	Kenta Lam	Santi Botross	Wayne Johnson	WEm
V04	06/05/22	Kenta Lam	Santi Botross	Wayne Johnson	WEm



Table of Contents

1	Introduction1			
	1.1	Overview	1	
	1.2	Purpose of this Report	1	
	1.3	Reference	2	
2	Prop	posal Description	3	
	2.1	Location Details	3	
	2.2	Description of Proposed Signage	4	
	2.3	Signage Exposure	6	
	2.4	Crash History	11	
3	Stat	utory Requirements	13	
	3.1	Industry and Employment SEPP Schedule 5	13	
	3.2	Transport Corridor Outdoor Advertising and Signage Guidelines – Digital Signs Criteria (Section 2 of Guidelines)	14	
	3.3	Transport Corridor Outdoor Advertising and Signage Guidelines (Section 3 of Guidelines)	16	
		3.3.1 Sign Location Criteria	16	
		3.3.2 Sign Design and Operation Criteria	27	
4	Cor	nclusion	29	

Tables

Table 3.1: Digital Sign Criteria (Section 2 of Guidelines) 14

Figures

Figure 2.1: Proposed Sign Location	3
Figure 2.2: Existing Static Sign	5
Figure 2.3: Proposed Digital Sign	6
Figure 2.4: Miller Street North-east Bound Approach	7
Figure 2.5: Miller Street North-east Bound Approach Lane Configuration	7
Figure 2.6: Existing Static Sign	8
Figure 2.7: Designer's Impression of Proposed Digital Sign	9
Figure 2.8: Visible Distances of Proposed Digital Sign	9



Figure 2.9: Bank Street Westbound Approach Sign Exposure	10
Figure 2.10: Bank Street Eastbound Approach Sign Exposure	10
Figure 2.11: Sydney Fish Market Access Approach Sign Exposure	11
Figure 2.12: Crash Locations	12
Figure 3.1: Motorist's View from Bank Street East Approach	18
Figure 3.2: Motorist's View from Bank Street West Approach	19
Figure 3.3: Motorist's View from Sydney Fish Market Car Park Access	20
Figure 3.4: Safe Stopping Sight Distance of Marked Pedestrian Crossing	21
Figure 3.5: Miller Street Cyclist Right Turn Lane	22
Figure 3.6: Motorist's View on Saunders Street	23
Figure 3.7: Motorist's View on Saunders Street at the Intersection with Miller Street	24

APPENDICES

- A. CONCEPT DESIGN PLANS
- B. STATE ENVIRONMENTAL PLANNING POLICY (INDUSTRY AND EMPLOYMENT) SCHEDULE 5



1 Introduction

1.1 Overview

JCDecaux is seeking approval for the removal of an existing static sign and installation of a new digital sign on the corner of Saunders Street and Miller Street in Pyrmont. The proposed digital sign would be located in the vegetated area within the light rail corridor facing Miller Street north-east bound travel lanes.

The Transport Planning Partnership (TTPP) 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 Chapter 3 of State Environmental Planning (Industry and Employment) 2021 (Industry and Employment SEPP). The Guidelines outline best practice for the planning and design of outdoor advertisements in transport corridors. The Industry and Employment SEPP 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 TTPP's safety assessment for the proposed digital sign on the corner of Miller Street and Saunders Street in Pyrmont.

The following items have been considered in this report:

- Potential for the sign to obstruct or distract a driver's view of the road, traffic control devices and signalised pedestrian crossings.
- Distance from upstream or downstream intersections or other decision points, such as pedestrian crossings, cycle lanes and traffic signals.
- Potential for the sign to distract at a critical time 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 Reference

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

- Two inspections of the sign location from a driving viewpoint along Miller Street were carried out on 13 January 2022 and 2 May 2022.
- Austroad 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 (Industry and Employment) 2021.
- Concept design plans of the proposed digital sign dated 3 March 2022.



2 Proposal Description

2.1 Location Details

A new digital sign is proposed to be installed on the northwest corner of the Saunders Street and Miller Street intersection in Pyrmont. Currently, there is a static advertising sign at the proposed location within the vegetated area within the light rail corridor which faces towards Miller Street north-east bound travel lanes. The existing static sign has a width of 6.00 m and a height of 3.00 m plus a "APN" logo underneath the sign.

The location of the proposed digital sign is within a 40 km/h High Pedestrian Activity Area.

In the immediate vicinity of the proposed digital sign, Miller Street comprises one north-east bound travel lane, an additional short northbound lane between Bank Street and Saunders Street and two south-west bound travel lanes. A bi-directional cycleway is located along the northern side of Miller Street and eastern side of Saunders Street. The bi-directional cycleway and the north-east bound travel lane on Miller Street are separated by a raised median.

There is a marked pedestrian crossing located on Saunders Street near Miller Street.

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



Figure 2.1: Proposed Sign Location

Basemap Source: Nearmap, aerial imagery dated 21 December 2021



2.2 Description of Proposed Signage

As per the Industry and Employment SEPP, 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."

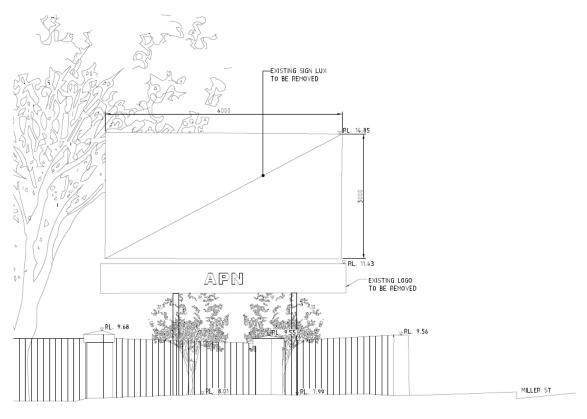
On the above basis, the advertising display area of the proposed digital sign would be 14.93 m² (3.172 m width by 4.708 m height) plus a stainless steel cladded "7" shaped support column with a height of 3.582m. The visual display area (the screen alone) would be 14.16 m² (3.072 m width by 4.608 m height).

The existing static sign will be removed and replaced with the proposed digital sign. The proposed digital screen would be set upon a new perforated black mesh cladding which would visually appear as a plain background around the border of the visual screen. The advertising sign will be placed on top of a stainless-steel cladded support column which is installed on a pile cap and pier for increased stability. The general layout of the existing static sign and proposed digital sign are illustrated in Figure 2.2 and Figure 2.3 respectively.

The proposed digital sign would be used for promoting JCDecaux and its sponsors, and thirdparty advertising. The proposed digital sign would contain text and images.



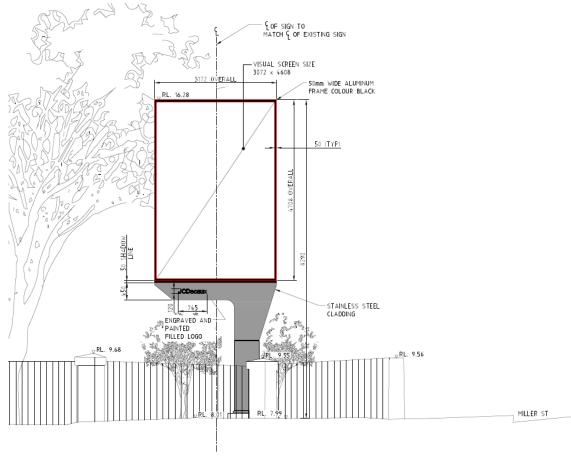
Figure 2.2: Existing Static Sign



Source: JCDecaux dated 03/03/2022



Figure 2.3: Proposed Digital Sign



Source: JCDecaux dated 3/03/2022

2.3 Signage Exposure

The proposed digital sign would be visible to traffic travelling north-east bound on Miller Street, as shown in Figure 2.4.

A site visit was undertaken on Thursday 13 January 2022 to inspect driver sight distances on approach to the proposed digital sign location and observe any potential crash hazards likely to result from the proposed digital sign. A description of the site investigation findings is provided herein.



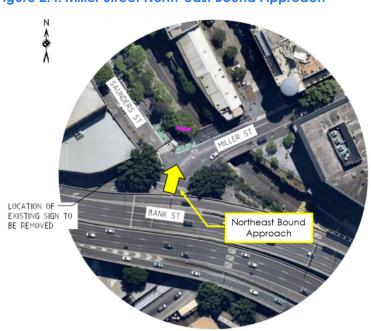
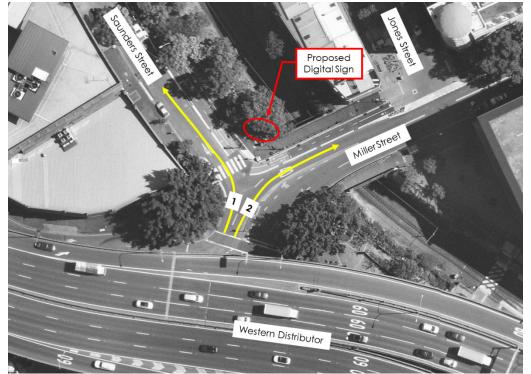


Figure 2.4: Miller Street North-east Bound Approach

To the north of the Miller Street and Bank Street signalised intersection, there are two northeast travel lanes on approach to the proposed sign location. The kerbside travel lane is dedicated to vehicles subsequently turning left onto Saunders Street while the median travel lane is the primary lane for vehicles wishing to continue travelling north-east bound along Miller Street, as shown in Figure 2.5.





Basemap Source: Nearmap, aerial image dated 21 December 2021



- There is an existing static sign within the vegetated area where the proposed digital sign is proposed to be located. The existing static sign would be removed to enable installation of the proposed digital sign with new support column (see Section 2.2 for details of support column).
- The south-west facing digital sign would be visible to motorists travelling north-east bound on Miller Street.
- To the south of the sign location, Miller Street is intersected by Bank Street in the northsouth direction. The Sydney Fish Market car park access is adjoined at the southern leg of this intersection.
- Treating the observed conditions during the site inspection as typical conditions in the area, the proposed digital sign would likely be visible in traffic lanes as follows:
 - In Bank Street eastbound travel lanes, approximately 40 m from the sign
 - In Bank Street westbound travel lanes, approximately 100 m from the sign
 - In Sydney Fish Market car park northbound access travel lanes, approximately 85 m from the sign.

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



Figure 2.6: Existing Static Sign

Source: JCDecaux



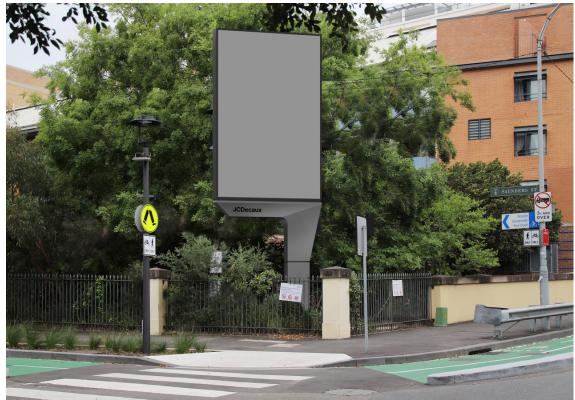


Figure 2.7: Designer's Impression of Proposed Digital Sign

Source: JCDecaux

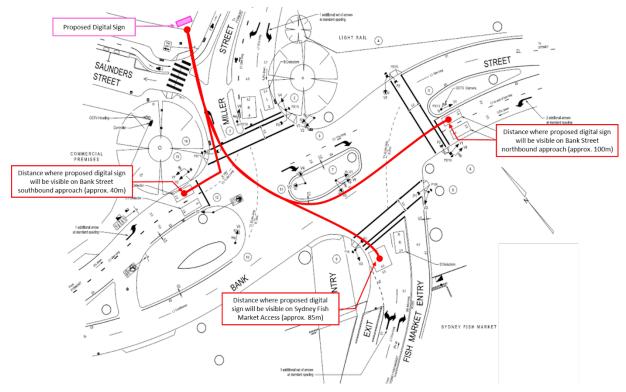


Figure 2.8: Visible Distances of Proposed Digital Sign





Figure 2.9: Bank Street Westbound Approach Sign Exposure

Source: Photograph taken by TTPP dated 13/01/2022



Figure 2.10: Bank Street Eastbound Approach Sign Exposure

Source: Photograph taken by TTPP dated 13/01/2022



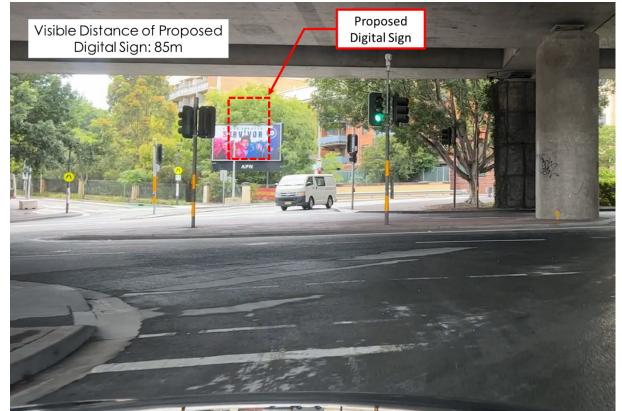


Figure 2.11: Sydney Fish Market Access Approach Sign Exposure

Source: Photograph taken by TTPP dated 13/01/2022

2.4 Crash History

Historic crash data has been obtained from Transport for NSW (TfNSW) and assessed for incidents along Miller Street and the cross intersection with Bank Street within the visible distance of the proposed digital sign location. Based on site observations, the proposed digital sign would be visible from all approaches to the Miller Street and Bank Street intersection. The digital sign would be visible from the following distances:

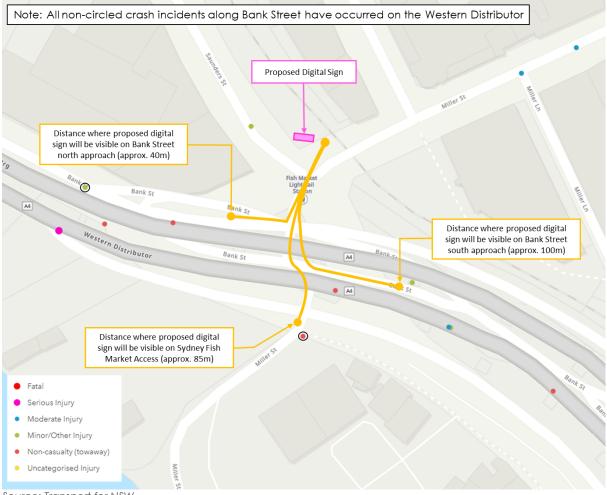
- Approximately 40m from the digital sign to Bank Street eastbound travel lanes.
- Approximately 100m from the digital sign to Bank Street westbound travel lanes.
- Approximately 85m from the digital sign to Sydney Fish Market northbound car park access travel lanes.

Crash history data has been assessed on the south approach to the proposed digital sign (and thus, the existing static sign) 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.

There were no crashes recorded on Miller Street between Bank Street and Saunders Street in the north-east direction. In addition, there were no crashes recorded at the Miller Street and Bank Street intersection and Miller Street and Saunders Street intersection.



Figure 2.12: Crash Locations



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 (Industry and Employment) 2021. 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, Advertisements and Road Safety of the NSW Guidelines.

3.1 Industry and Employment SEPP Schedule 5

Clauses 1 to 7 of the Industry and Employment SEPP – Schedule 5 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 north-west corner of the Miller Street and Saunders Street intersection is unlikely to reduce safety for motorists, pedestrians or cyclists.

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

Assessment of the proposal in accordance with the Department of Planning's Transport Corridor Outdoor Advertising and Signage Guidelines has been undertaken in the following sections below.



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

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.

It is noted that most 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 less than 20 m ² Display Area	Comments
A	Each advertisement must be displayed in a completely static manner, without any motion, for the approved dwell time as per criterion (d) below.	Relates to sign content only.
В	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.	Relates to sign content only.
С	 The image must not be capable of being mistaken: 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 ii. as text providing driving instructions to drivers. 	Relates to sign content only.
D	 Dwell times for image display are: i. 10 seconds for areas where the speed limit is below 80 km/h. ii. 25 seconds for areas where the speed limit is 80 km/h and over. 	As detailed in Section 3.3.2.2, a dwell time of 10 seconds would be suitable for the proposed digital sign.
E	The transition time between messages must be no longer than 0.1seconds, and in the event of image failure, the default image must be a black screen.	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	Luminance levels must comply with the requirements in Section 3 (Transport Corridor Advertising Signage Guidelines).	This sign would be classified as Zone 3. Zone 3 covers areas with generally high off-street ambient lighting e.g. some major shopping/ commercial centres.
G	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.	It is assumed that this operational requirement would be met.
Н	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).	Relates to sign content only.
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.	The sign is not visible from a school zone, and therefore, would not be required to be conditioned as so.



	Criteria, for Signs less than 20 m ² Display Area	Comments
ſ	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.	Not applicable, as sign is less than 20 m ² . Criteria is applicable to signs greater than 20 m ² .
Μ	 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. 	Not applicable, as sign is less than 20 m². Criteria is applicable to signs greater than 20 m².
Ν	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.	Not applicable, as sign is less than 20 m ² . Criteria is applicable to signs greater than 20 m ² .
0	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.	Not applicable, as sign is less than 20 m². Criteria is applicable to signs greater than 20 m².



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? Would 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 proposed digital sign would not physically obstruct any vehicle, pedestrian and cyclist movements as it would be placed within the vegetated area of the light rail corridor. The digital sign would not protrude laterally into the road carriageways of Saunders Street or Miller Street.

The concept design for the proposed sign and its positioning at the Miller Street and Saunders Street intersection 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 supplements) or behind an RMS-approved crash barrier.

The digital sign would be installed within the vegetated area of the light rail corridor located outside the clear zone. This vegetated area is currently demarcated by wrought iron fencing.

The support column of the digital sign would be attached to a newly installed pile cap (1m width x 1m breadth) and 0.75m diameter pier to provide additional stability to the digital sign. 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.

In accordance with Austroads guidelines, a clear zone is the area adjacent to the traffic lane that should be kept free from features that would be potentially hazardous to errant vehicles. In a 40 km/h road environment, the minimum clear zone width from the traffic lane is 3 m. The



proposed digital sign is located approximately 10 m from the edge of the carriageway and hence would not be located within the clear zone.

(d) All signs that are permitted to hang over roads or footpaths should meet wind loading requirements as specified in A\$1170.1 and A\$1170.2. 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 AS1170.1 and AS1170.2 to meet the requirements for wind loading, whilst having consideration for height of the sign board 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.

The digital sign would not obstruct the motorist's view of the road and other road users (i.e. pedestrians and cyclists) travelling on the footpath and cycleway on Saunders Street and Miller Street.

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

The digital sign would not obstruct a pedestrian or cyclist's view of the road as the proposed digital sign would not protrude laterally over the footpath or cycleway on the eastern side of Saunders Street and northern side of Miller Street.

(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 digital sign would be positioned at the north-west corner of the Miller Street and Saunders Street intersection where vehicles travelling on Miller Street in the north-east bound direction would approach a slight right turn bend. However, the digital sign is positioned behind the wrought iron fencing with masonry pillars and cycleway which would provide sufficient information for motorists on Miller Street travelling north-east bound to not misunderstand the road alignment.

In addition, Miller Street is a low-speed environment of 40 km/h allowing motorists to travel with caution and increased time to react to any hazards or changes to the road alignment ahead.



- (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 a motorist's line of sight on Miller Street with a viewable distance similar to the existing static sign.

Motorists waiting at the stop line at the Bank Street east approach of the Miller Street and Bank Street intersection would have partial visibility of the digital sign as it is obstructed by existing tree foliage, as shown in Figure 3.1.



Figure 3.1: Motorist's View from Bank Street East Approach

Source: Photograph taken by TTPP dated 13/01/2022



The proposed digital sign would be visible to motorists waiting at the stop line on the Bank Street west approach as shown in Figure 3.2. The proposed digital sign would not be in the motorist's peripheral view at any point when approaching the traffic signals. As such, the potential for the proposed digital sign to distract motorists travelling eastbound on Bank Street would be minimal.



Figure 3.2: Motorist's View from Bank Street West Approach

Source: Photograph taken by TTPP dated 13/01/2022

The proposed digital sign would be within the motorist's peripheral view from the Sydney Fish Market car park access at the Bank Street and Miller Street intersection as shown in Figure 3.3. However, motorists would frequently experience temporary obstructions due to passing vehicles at the Miller Street and Bank Street intersection and therefore would have minimal potential to cause a distraction.





Figure 3.3: Motorist's View from Sydney Fish Market Car Park Access

Source: Photograph taken by TTPP dated 13/01/2022

In addition, the digital sign is located within a 40 km/h High Pedestrian Activity Area where motorists would be on higher alert of pedestrian and cyclist movements and given increased reaction time to unforeseen road hazards.

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.

The Guidelines state that to minimise distractions near decision making points and conflict points (i.e. intersections, merge points, traffic control signals and etc.), and ensure there is sufficient distance for a driver to recognise, react and, if required, stop safely before reaching one of these points.

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

For the purpose of this assessment, an operating speed of 40 km/h has been used to calculate the minimum SSD. A 40 km/h speed has been adopted based on the signposted



speed limit along Miller Street 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 40 km/h speed zone is 34m.

The proposed digital sign (and existing static sign) is located beyond the traffic signals at Miller Street and Bank Street intersection, and therefore, the sign would not be located less than the safe stopping sight distance from the intersection.

Similarly, the proposed digital sign is located beyond the SSD of the Miller Street and Saunders Street intersection on the Miller Street northeast bound approach.

Furthermore, it is reinforced that there is an existing static sign at this location with a low crash history on Miller Street, Saunders Street and the cross-intersection with Bank Street.

(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 situated outside the SSD of the marked pedestrian crossing on Saunders Street as shown in Figure 3.4.

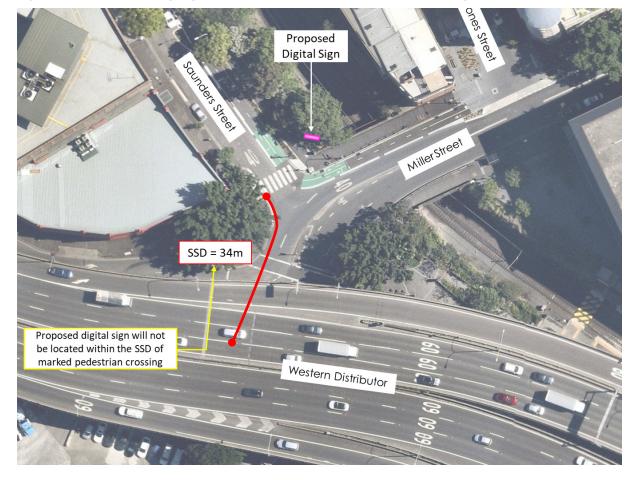


Figure 3.4: Safe Stopping Sight Distance of Marked Pedestrian Crossing



Similarly, the proposed digital sign is located beyond the SSD of the Miller Street southbound to Saunders right turn lane via the small gap in the median island, as shown in Figure 3.5. It is noted that cyclists give way to oncoming motorists before proceeding to turn right into Saunders Street. It is noted that the number of cyclists turning right at this location would have significantly reduced with the recent installation of the two-way cycleway provided on the north side of Miller Street.



Figure 3.5: Miller Street Cyclist Right Turn Lane

Map Source: Nearmap, aerial image dated 21/12/2021



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

The proposed digital sign would not be visible from Saunders Street when approaching the intersection with Miller Street due to vegetation obstructing the motorist's view as shown in Figure 3.6.

Figure 3.6: Motorist's View on Saunders Street



Source: Photograph taken by TTPP dated 13/01/2022

At the stem of the Miller Street and Saunders Street intersection, the digital sign would be visible to motorist's waiting at Saunders Street. However, the digital sign would not be within the motorist's peripheral vision and a motorist would be required to turn their head almost 90 degrees in order to view the digital sign which is unlikely to occur, as shown in Figure 3.7.



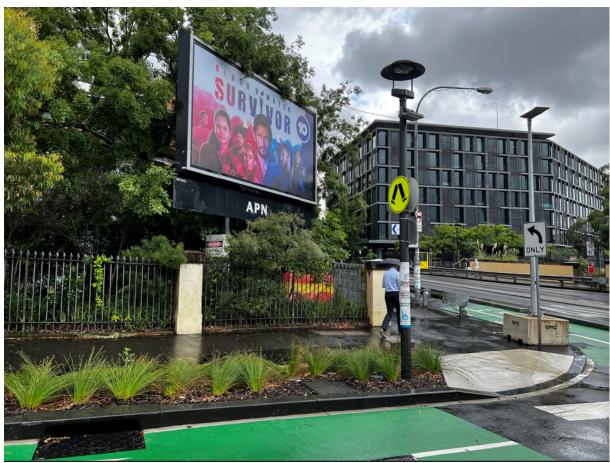


Figure 3.7: Motorist's View on Saunders Street at the Intersection with Miller Street

Source: Photograph taken by TTPP dated 13/01/2022

- (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.

A "critical time" is understood to refer to a point in time when a driver's decision is required implying that a road safety implication could occur if a driver was distracted at this time. On the north-east bound approach, the proposed digital sign would be positioned beyond the traffic signals at Bank Street and the Miller Street and Saunders Street intersection. As such, the proposed digital sign would not obstruct the motorist's view of traffic signals.

Motorists' view at different distances on approach to the Bank Street and Miller Street intersection from the Sydney Fish Market car park kerbside exit lane is shown in Figure 3.8. Visibility of the proposed digital sign would be obstructed by existing vegetation at approximately 10m to 15m from the stop line. The proposed digital sign would be viewed by



motorists below the traffic signal lantern at approximately 5m from the Bank Street and Miller Street intersection. At the stop line, the proposed digital sign is not positioned near traffic signal lanterns that face the Sydney Fish Market car park access.

Hence, the proposed digital sign would not adversely affect motorists exiting Sydney Fish Market via the kerbside lane.



Figure 3.8: Motorist's View from Sydney Fish Market Kerbside Lane





Source: Photograph taken by TTPP dated 2/05/2022

3.3.1.4 Sign Spacing

(a) 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.



In built-up urban areas, it is impracticable to limit the spacing of signage at 150m apart. Especially within Sydney Metropolitan, drivers can be exposed to many signs at any given time.

Noting this, there are no other advertising signs placed within 150m of the proposed sign.

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 concept design stage. However, based on the example advertisement that is depicted in the designer's impression (Figure 2.7) the sign would not display colours and shapes which could be mistaken for a traffic signals or other traffic devices.

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

As the proposed digital sign would be located in the vicinity of traffic signals, it is recommended that the use of flashing lights and digital content containing red, amber or green circles, octagons, crosses, triangles or shapes and patterns that may result in the advertisement being mistaken for a traffic signal not be used. Green or amber should be restricted to avoid additional distraction potential. Furthermore, the image must not contain text providing driving instructions to drivers.

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 image display must not be less than:
 - (i) 10 seconds for areas where the speed limit is below 80 km/h



- (ii) 25 seconds for areas where the speed limit is 80 km/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.

Based on the NSW Guidelines, the minimum dwell time for content displayed on the digital sign would be 10 seconds. The digital sign is proposed to contain text and images, which would be in a static manner without any motion for this dwell time. The transition between content would be almost instantaneous.

The proposed digital sign is within close proximity to the Western Distributor however motorists travelling on the Western Distributor would not be able to view the digital sign.

There are no school zones located in the near vicinity of the proposed digital sign.

3.3.2.3 Illumination and Reflectance

- (a) Luminance levels must 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 signage 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 no 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 optin 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 replace with a new portrait design type digital sign on the corner of Miller Street and Saunders Street in Pyrmont.

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 (Industry and Employment) 2021.

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

- Zero crashes have occurred on the Miller Street north-east bound approach to the proposed digital sign or at the Miller Street and Banks Street intersection in the most recent five years (for which TfNSW has aggregated data).
- The proposed sign would not obstruct and/or reduce visibility of any traffic control devices, signage, pedestrians or cyclists.
- The proposed sign would not give incorrect information on the alignment of the road.
- Miller Street and Saunders Street has a posted speed limit of 40 km/h. In accordance with the Guidelines, a dwell time of 10 seconds for the digital sign is suitable.
- The proposed digital sign would not compromise safety for road users in the vicinity.

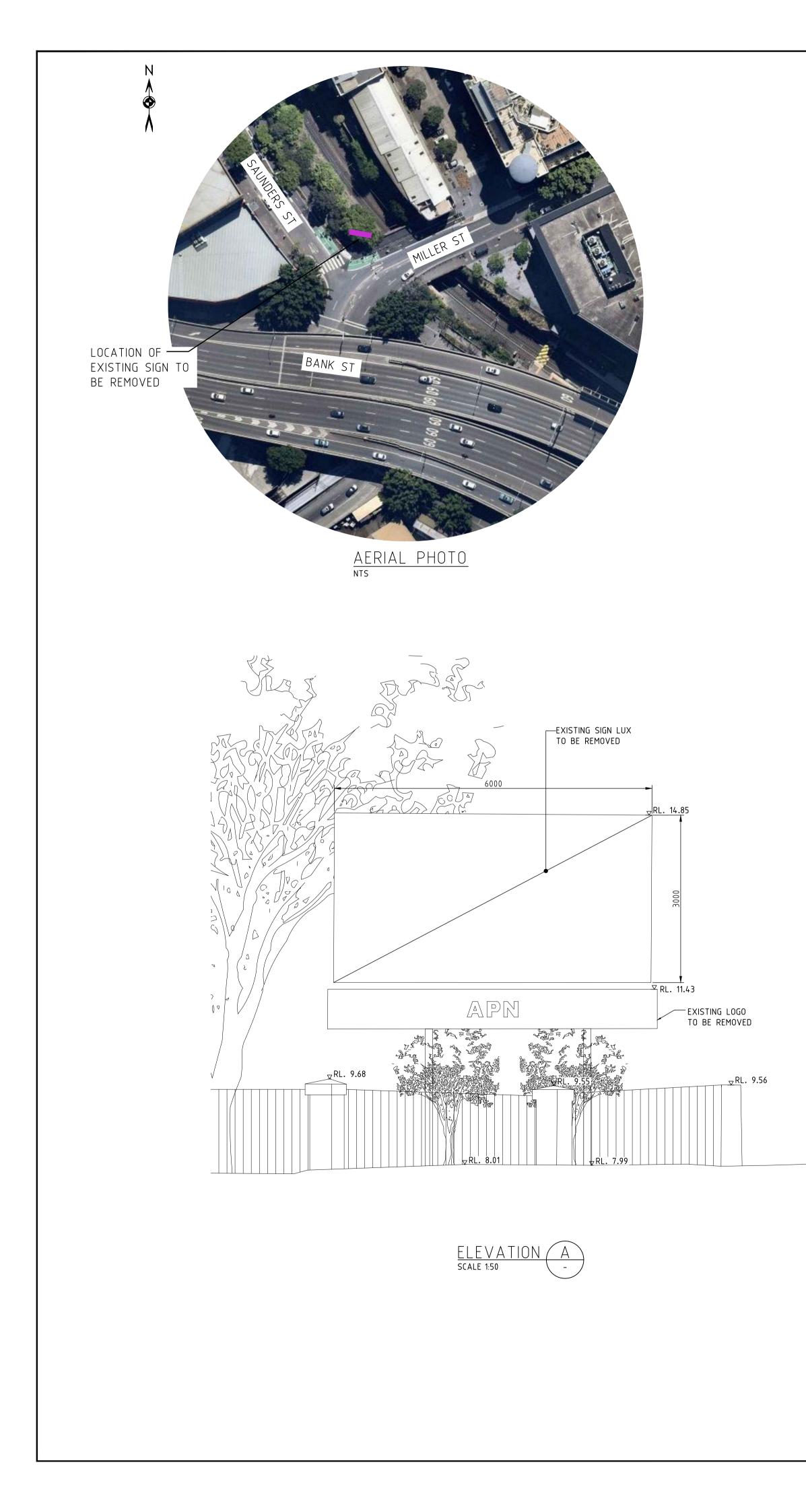
Having consideration for the signage safety assessment and discussions presented within this report, the analysis suggests that the removal of existing static sign and installation of a digital sign on the corner of Saunders Street and Miller Street would be acceptable.

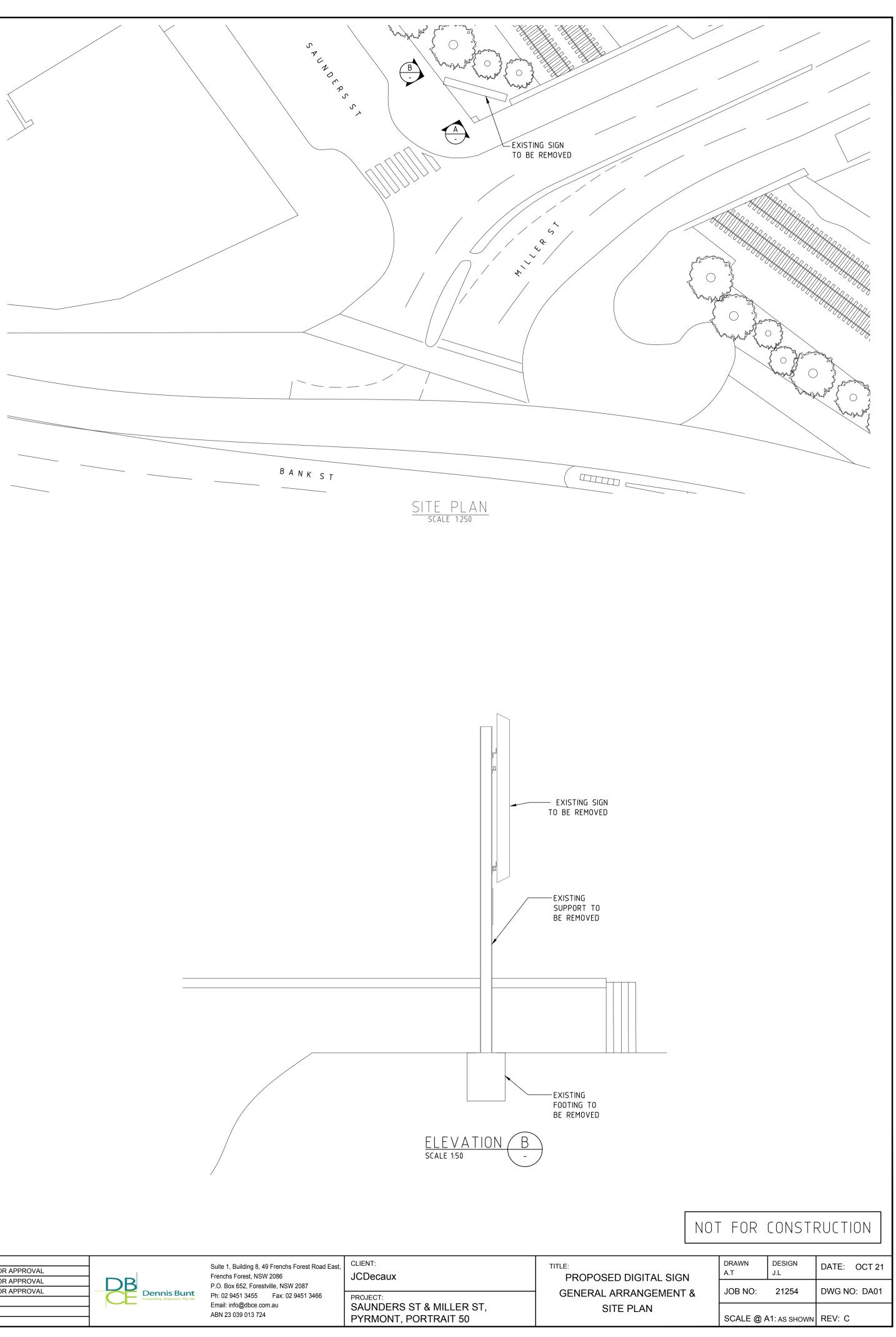


Appendix A

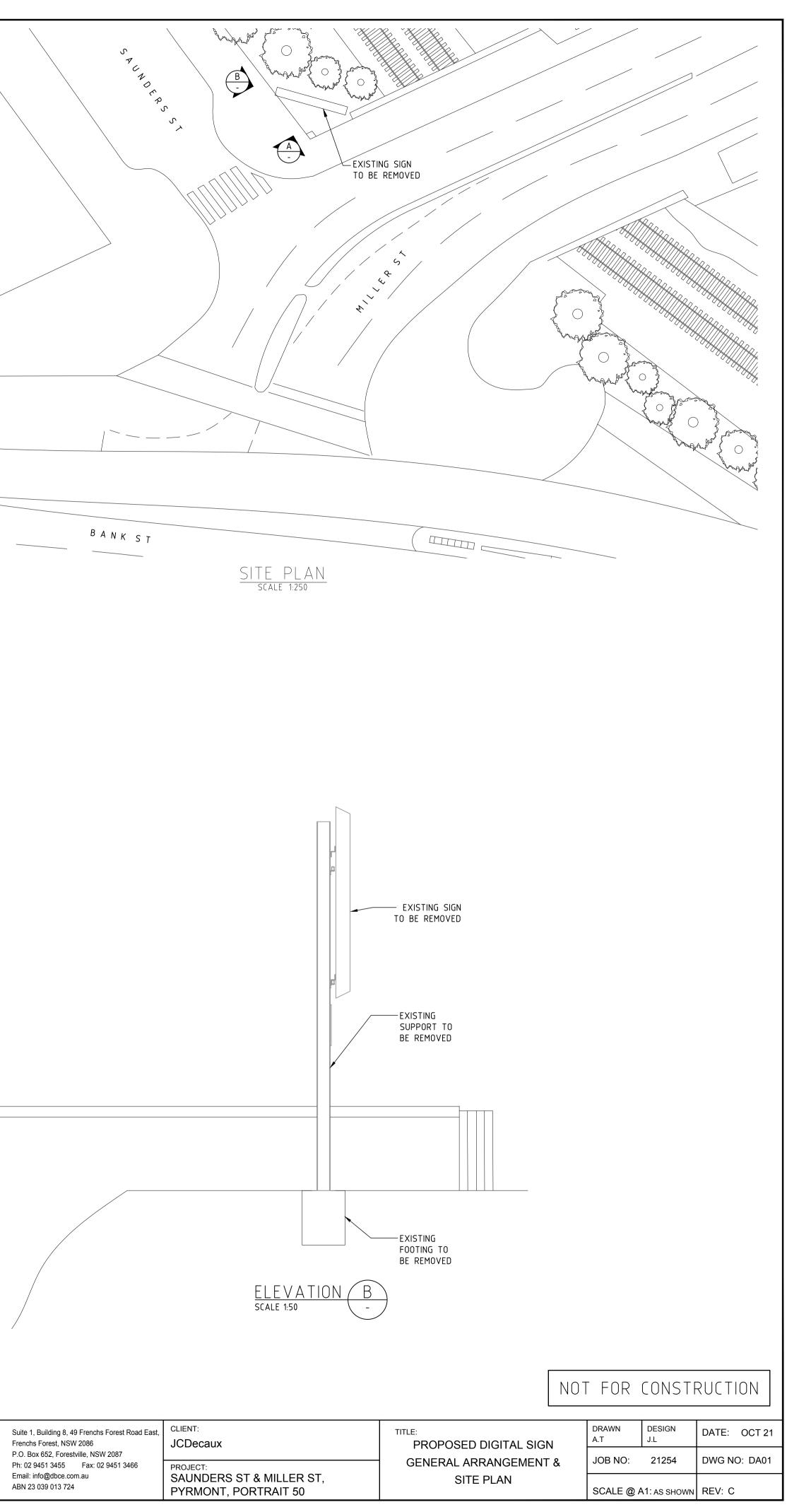
Concept Design Plans

21395-R01V04-210506 Saunders St Signage Safety Assessment.docx

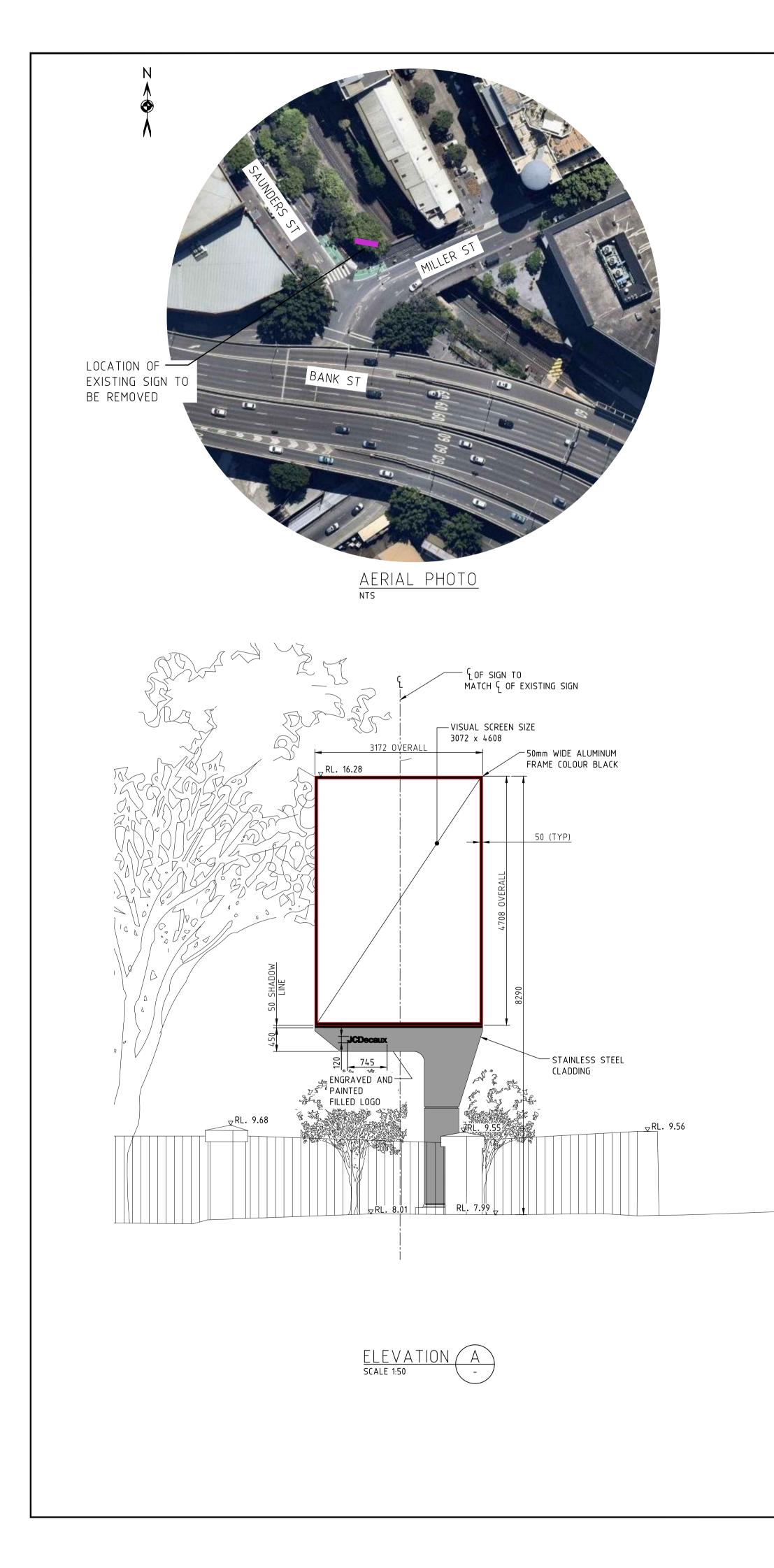


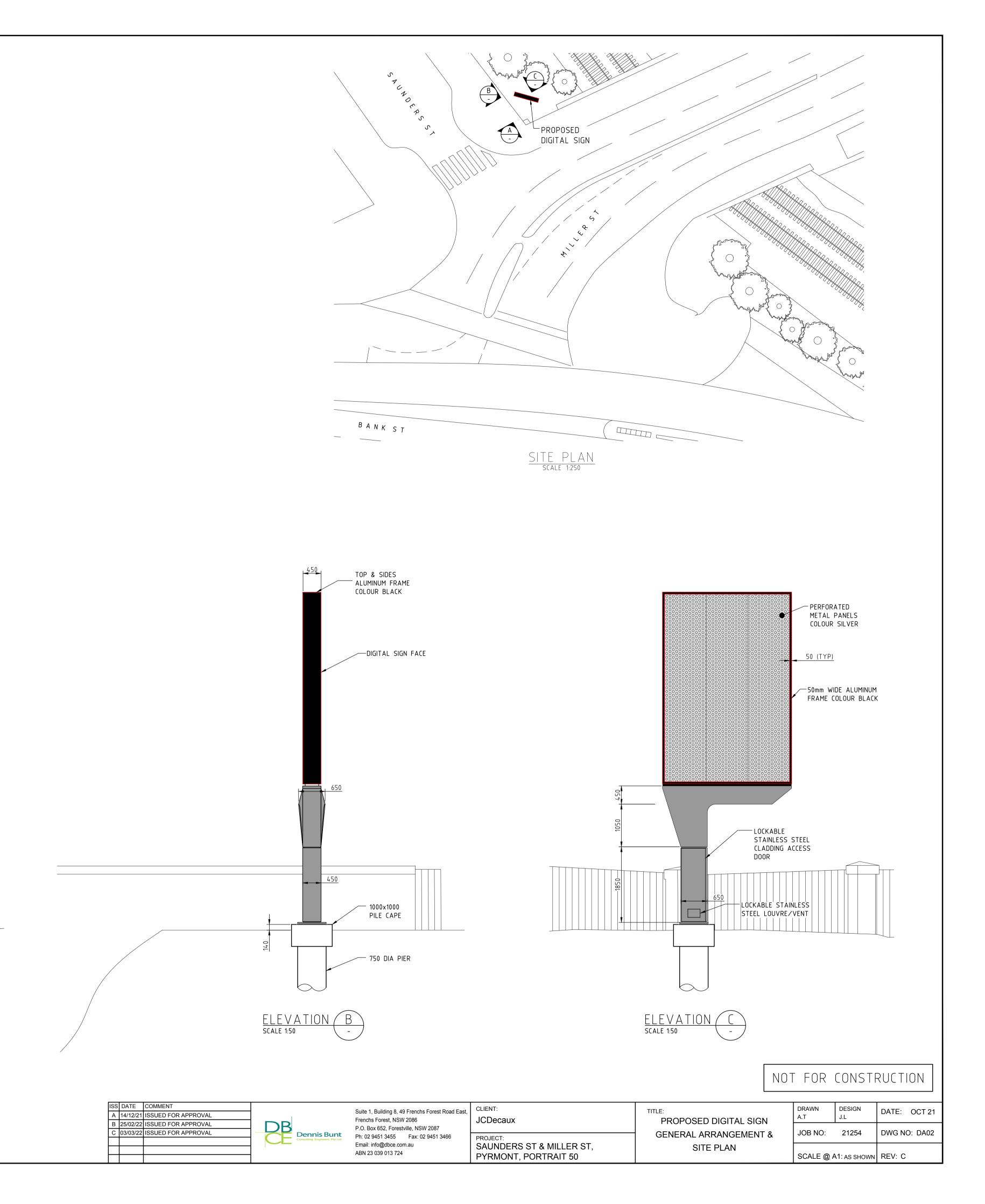


MILLER ST



ISS	DATE	COMMENT		Suite
А	14/12/21	ISSUED FOR APPROVAL	1	Frenc
В	25/02/22	ISSUED FOR APPROVAL		P.O. F
С	03/03/22	ISSUED FOR APPROVAL	Dennis Bunt	Ph: 02
			Consulting Engineers Pty Ltd	Email
				ABN 2





MILLER ST



Appendix B

State Environmental Planning Policy (Industry and Employment) – Schedule 5



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?

The Transport Planning Partnership Suite 402 Level 4, 22 Atchison Street St Leonards NSW 2065

> P.O. Box 237 St Leonards NSW 1590

> > 02 8437 7800

info@ttpp.net.au

www.ttpp.net.au