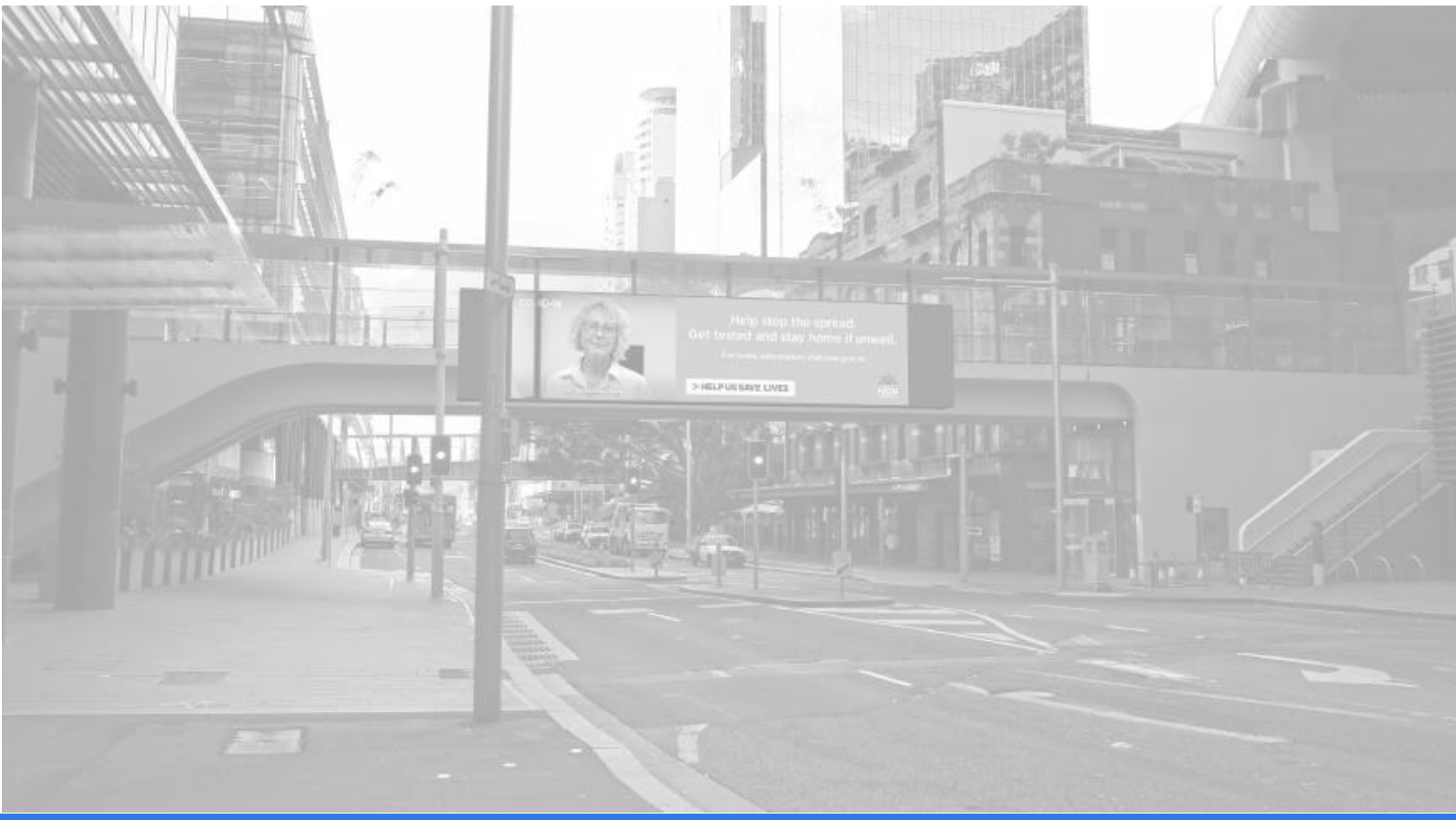

Sussex Street
Digital Signage Safety Assessment

Prepared for:

Ethos Urban

11 November 2020

The Transport Planning Partnership

Sussex Street

Digital Signage Safety Assessment

Client: Ethos Urban

Version: V01

Date: 11 November 2020

TTPP Reference: 20406

Quality Record

Version	Date	Prepared by	Reviewed by	Approved by	Signature
V01	11/11/20	Kenta Lam	Santi Botross	Wayne Johnson	

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APPENDICES

1 Introduction

1.1 Overview

Sydney Trains is seeking approval for the installation of a LED digital illuminated sign on an existing overhead pedestrian footbridge above Sussex Street in Barangaroo. The proposed signage is to be located on both sides of the footbridge, facing northbound and southbound travel lanes on Sussex Street. The pedestrian footbridge provides the east-west connection between Wynyard train station and Exchange Place in Barangaroo.

Transport for NSW (TfNSW), formerly Roads and Maritime Services require a signage safety assessment to be completed for the proposed signage.

The Transport Planning Partnership (TTPP) has been commissioned by Ethos Urban, on behalf of Sydney Trains, 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 digital signage and provide recommendations on mitigation measures to alleviate impacts on the surrounding road network. This report sets out the findings of TTPP's signage safety assessment for the proposed digital signage above Sussex Street in Barangaroo.

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 signalised mid-block pedestrian crossing.
- Distance from upstream or downstream intersections or other decision points, such as merge points and diverging points.
- Potential for the signage 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 References

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

- An inspection of the signage location from a driving viewpoint along Sussex Street carried out on Wednesday 28 November 2020.
- 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).
- Design plans of the proposed digital signage dated 14/08/2020.

2 Proposal Description

2.1 Location Details

A new digital signage is proposed to be installed off the side of the overhead pedestrian footbridge across Sussex Street in Barangaroo. The footbridge provides a connection between Wynyard train station in the east and Exchange Place (Barangaroo) in the west.

The proposed digital sign boards will be situated on the northern and southern façade of the footbridge. Currently, there are no sign boards placed on the footbridge.

In the vicinity of the proposed signage, Sussex Street has two travel lanes in each of the northbound and southbound directions. The footbridge is located directly above a signalised mid-block pedestrian crossing on Sussex Street.

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

Figure 2.1: Signage Location

Basemap source: Nearmap, aerial imagery dated 01 August 2020

2.2 Description of Proposed Signage

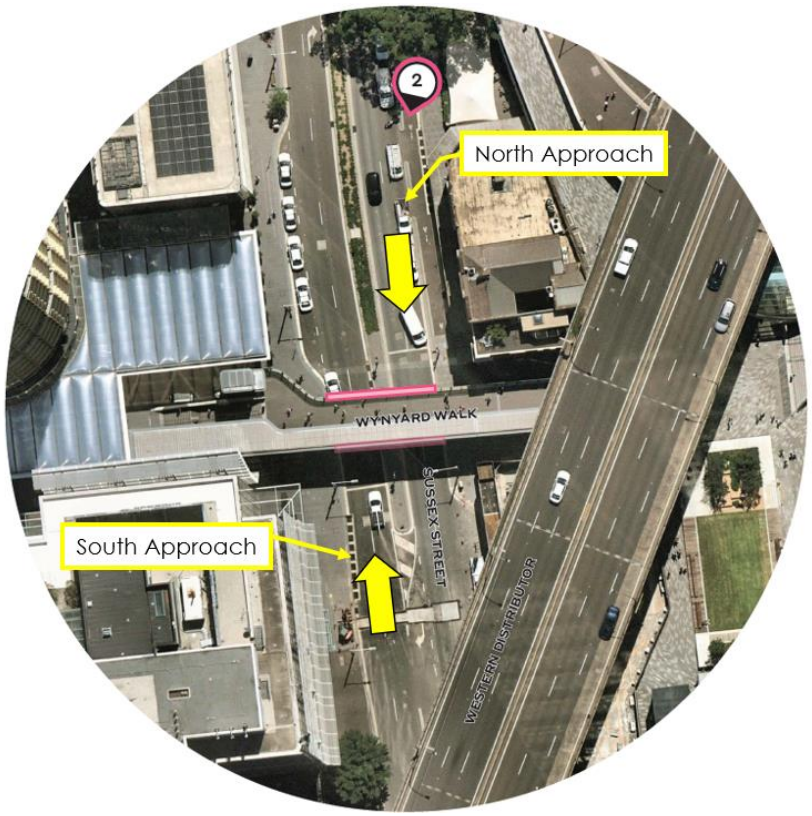
Each signage board will have a length of 15.5 m and height of 3.3 m, and a visual screen with a length of 12.4 m and height of 3.2 m (39.7 m^2 area). The screen would be set upon a black cladding which will visually appear as a plain border around the visual screen. The base of the signage board will align with the lowest point of the footbridge. However, a minimum vertical clearance of 5.5 m between the base of the sign board and the ground level will be provided.

The digital signage with LED panel will be installed on both sides of the footbridge which face the northbound and southbound travel lanes on Sussex Street. The proposed digital signage will be used for promoting Sydney Trains and its sponsors, and third-party advertising. The digital signage will contain text and images.

2.3 Signage Exposure

The proposed digital signage would be visible to traffic travelling on Sussex Street on the north approach and south approach, as shown in Figure 2.2. A site visit was undertaken on Wednesday 28 October 2020 to inspect driver sight distances on both approaches to the proposed signage location and observe any potential crash hazards likely to result from the proposed digital signage. A description of the site investigation findings is provided herein.

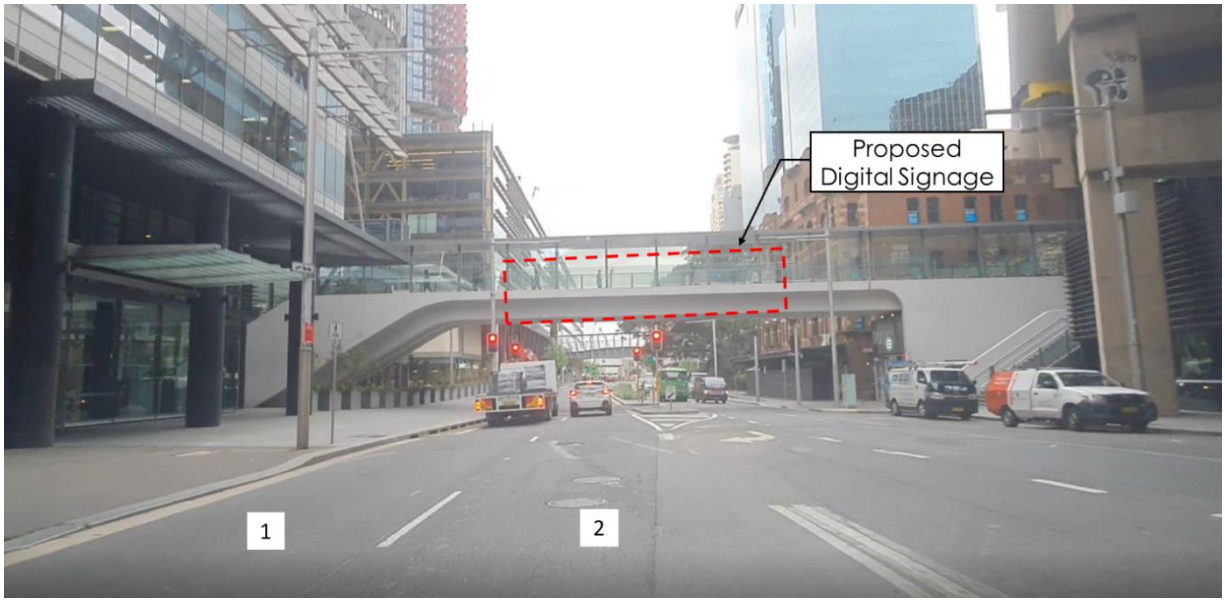
Figure 2.2: Sussex Street Approaches



2.3.1 Sussex Street South Approach

The lane configuration on the Sussex Street south approach in the vicinity of the proposed signage location is shown in Figure 2.3. Travel lanes are numbered 1 and 2 starting from the kerbside lane.

Figure 2.3: Sussex Street South Approach Lane Configuration

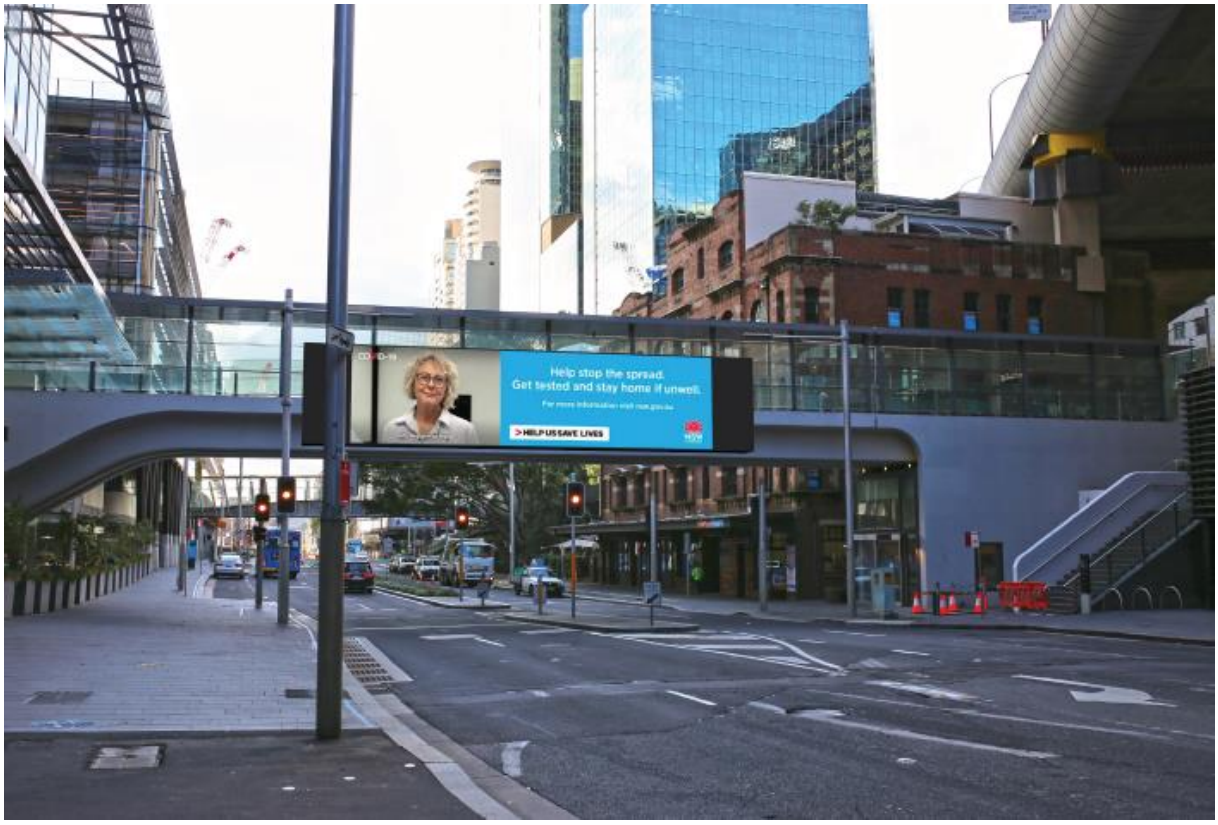


Source: Photograph taken by TTPP on 28/10/2020

- The south facing digital signage would be visible to motorists on Sussex Street travelling northbound.
- The digital signage would likely be visible in traffic lanes as follows:
  - In Lane 1 (through lane), 130 m from the sign on the south approach.
  - In Lane 2 (through lane), 130 m from the sign on the south approach.
- In all lanes, the digital signage would become out of driving view approximately 10 m south of the proposed signage.

Figure 2.4 illustrates a perspective of the designer's impression of the concept design at the proposed signage location. Concept plans are provided in Appendix A. Likely visible distances on Sussex Street south approach are shown in Figure 2.5 and Figure 2.6.

Figure 2.4: Designer's Impression on South Approach

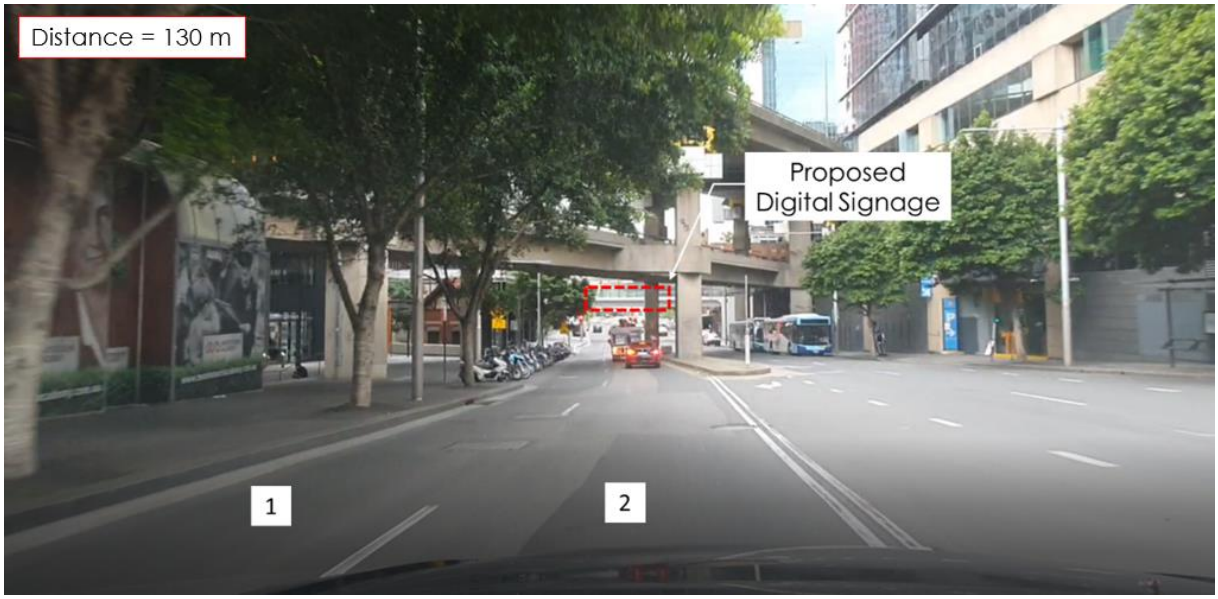


Source: Ethos Urban Pty Ltd dated 14/08/2020

Figure 2.5: South Approach Signage Exposure – Lane 1

Source: Photograph taken by TTPP on 28/10/2020

Figure 2.6: South Approach Signage Exposure – Lane 2

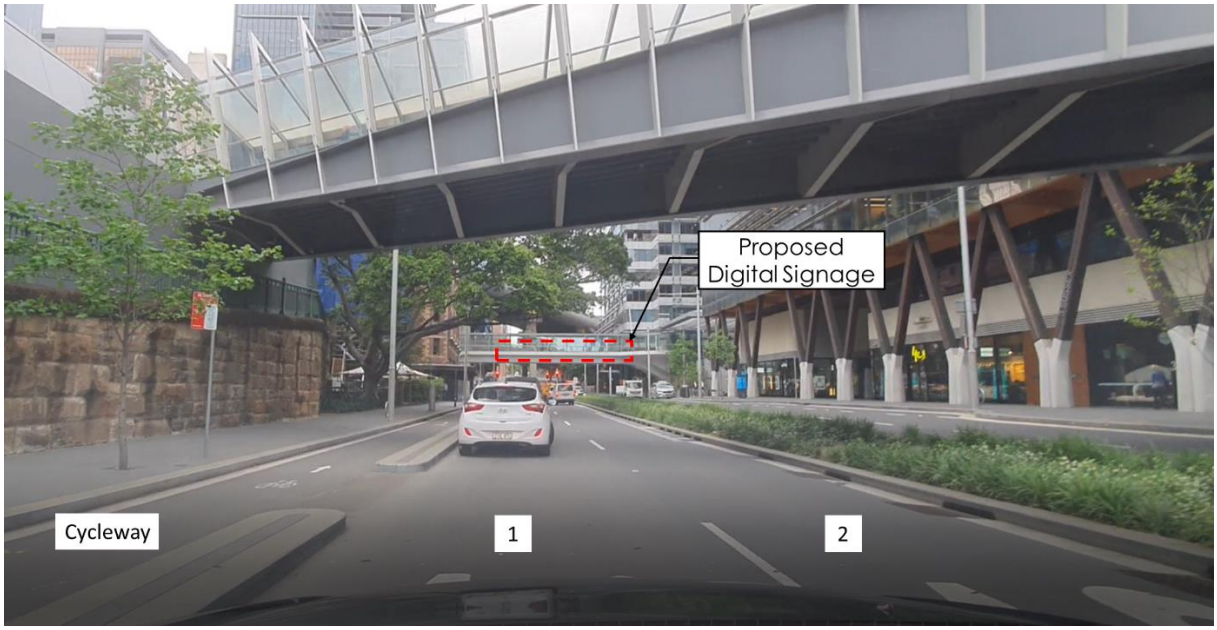


Source: Photograph taken by TTPP on 28/10/2020

2.3.2 Sussex Street North Approach

The lane configuration on Sussex Street north approach in the vicinity of the proposed signage is shown in Figure 2.7. There are two travel lanes on approach to the proposed signage location. A separated on-road cycleway is located between the kerb and Lane 1. Time-restricted on-street parking is permitted in Lane 1 for a length of approximately 50 m measured from the signalised mid-block pedestrian crossing.

Figure 2.7: Sussex Street Southbound Approach Lane Configuration



Source: Photograph taken by TTPP on 28/10/2020

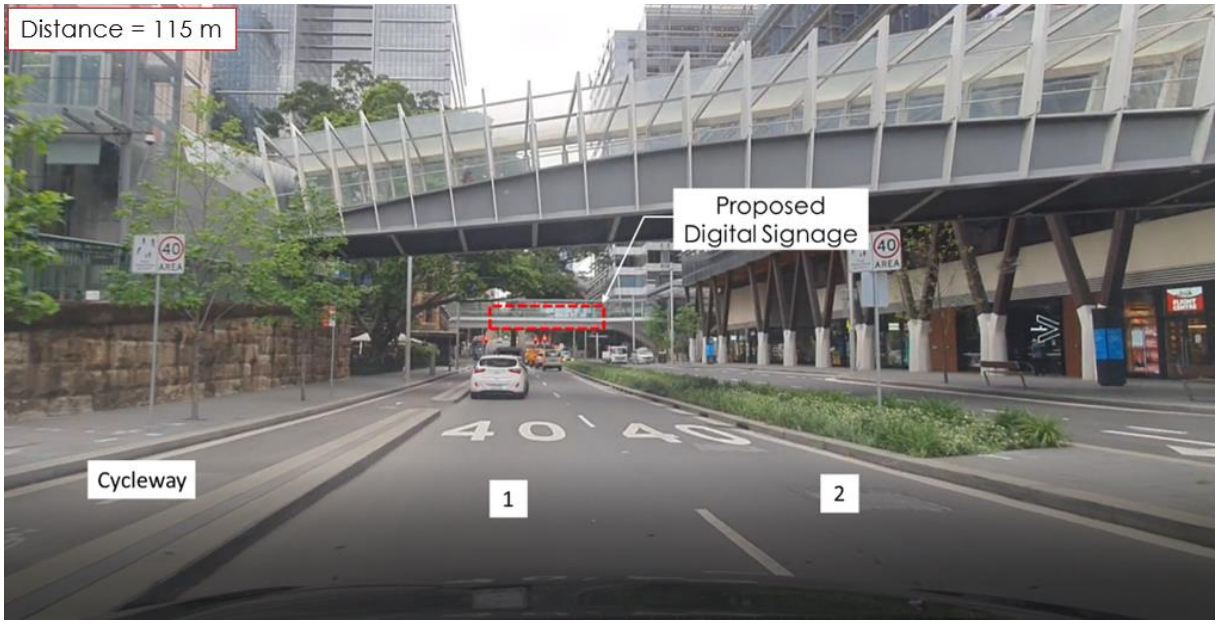
- The north facing digital signage would be visible to motorists and cyclists on Sussex Street travelling southbound.
- The digital signage would likely be visible in traffic lanes as follows:
  - In Lane 1 (through lane), 115 m from the sign on the southbound approach.
  - In Lane 2 (through lane), 115 m from the sign on the southbound approach.
- In all lanes, the digital signage would become out of driving view approximately 10 m north of the proposed signage.

Figure 2.8 shows the perspective of the designer's impression of the concept design at the proposed signage location. Likely visible distances on Sussex Street north approach are shown in Figure 2.9 and Figure 2.10.

Figure 2.8: Designer's Impression on North Approach

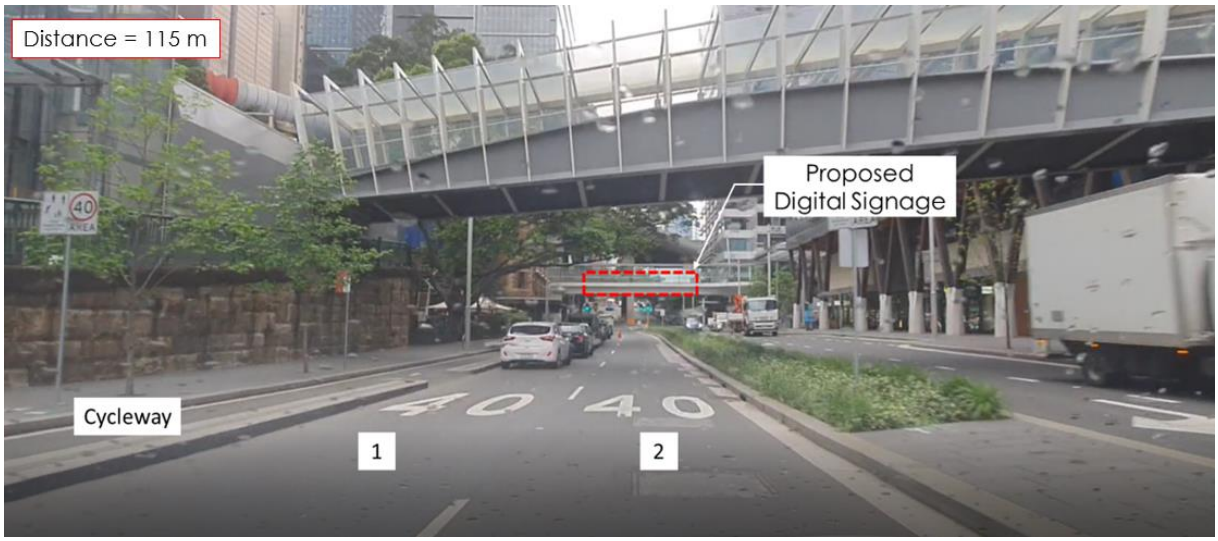
Source: Ethos Urban Pty Ltd dated 14/08/2020

Figure 2.9: North Approach Signage Exposure – Lane 1



Source: Photograph taken by TTPP dated 28/10/2020

Figure 2.10: Southbound Approach Signage Exposure – Lane 2



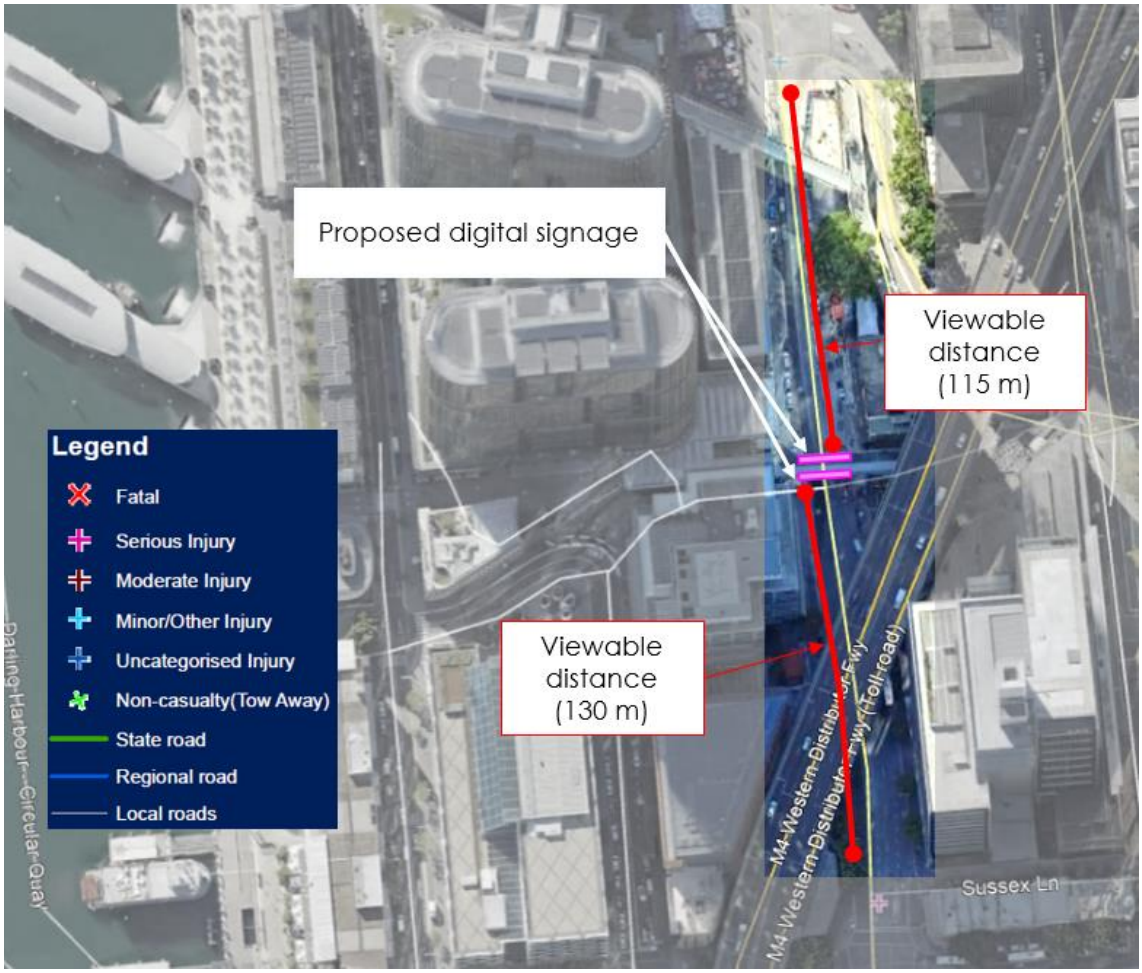
Source: Photograph taken by TTPP dated 28/10/2020

2.4 Crash History

Historic crash data has been obtained from Transport for NSW (TfNSW) and assessed for incidents on Sussex Street within the viewable distance of the proposed signage location. Based on site observations (as detailed in Section 2.3), the proposed signage location is visible from a distance of approximately 130 m and 115 m away on the Sussex Street south approach and north approach, respectively.

Crash history data has been assessed on both approaches to the proposed signage location between 1 January 2015 and 31 December 2019 (5-year finalised data). During this period, there have been no reported incidents as shown in Figure 2.11.

Figure 2.11: Crash Locations in Recent 5-Year Period



Source: Transport for NSW

Based on the crash history data for the most recent 5-year period, it is clear that there are no existing safety concerns within the viewable distance of the proposed signage location.

3 Statutory Requirements

This section of the report assesses the compliance with the road safety assessment criteria established in the NSW Guidelines and State Environmental Planning Policy (SEPP) 64 requires analysis as to whether the proposal will 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 above key road safety assessment criteria, a series of detailed criteria are set out in Section 3, *Advertisements and Road Safety* of the NSW Guidelines.

3.1 Sign Location Criteria

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 signage will not physically obstruct any vehicle, pedestrian and cyclist movements as it will be placed on the side of the pedestrian footbridge directly above Sussex Street. The digital signage will not protrude below the underside of the footbridge, and hence the vertical clearance will be maintained as per existing conditions.

The concept design for the proposed signage and its positioning on the sides of the footbridge are 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 boards will be installed on both sides of the pedestrian footbridge 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 will not be located within the clear zone.

A minimum vertical clearance of 5.5 m will be maintained as per the existing conditions.

(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 proposed signage will 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.

3.1.2 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 signage will be positioned at the height of the pedestrian footbridge, not impeding the motorists' visibility of the road alignment. The digital signage would not protrude below the underside of the footbridge, and hence would not be obstructing visibility to any vehicles, bicycle riders on Sussex Street.

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

The proposed digital signage will not obstruct pedestrian and cyclist's view of Sussex Street when on the street level.

(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 signage will be positioned at the same height as the existing pedestrian footbridge which would not impede a driver's visibility on the alignment of the road. The digital signage would not indicate misleading information or information contrary to the existing roadway. This is supported by the designer's impression of the proposed signage as depicted in Figure 2.4 and Figure 2.8.

(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 signage would be located within a driver's line of sight for both northbound and southbound movements on Sussex Street with visible distances of 130 m and 115 m, respectively. In addition, the digital signage 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 signage.

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

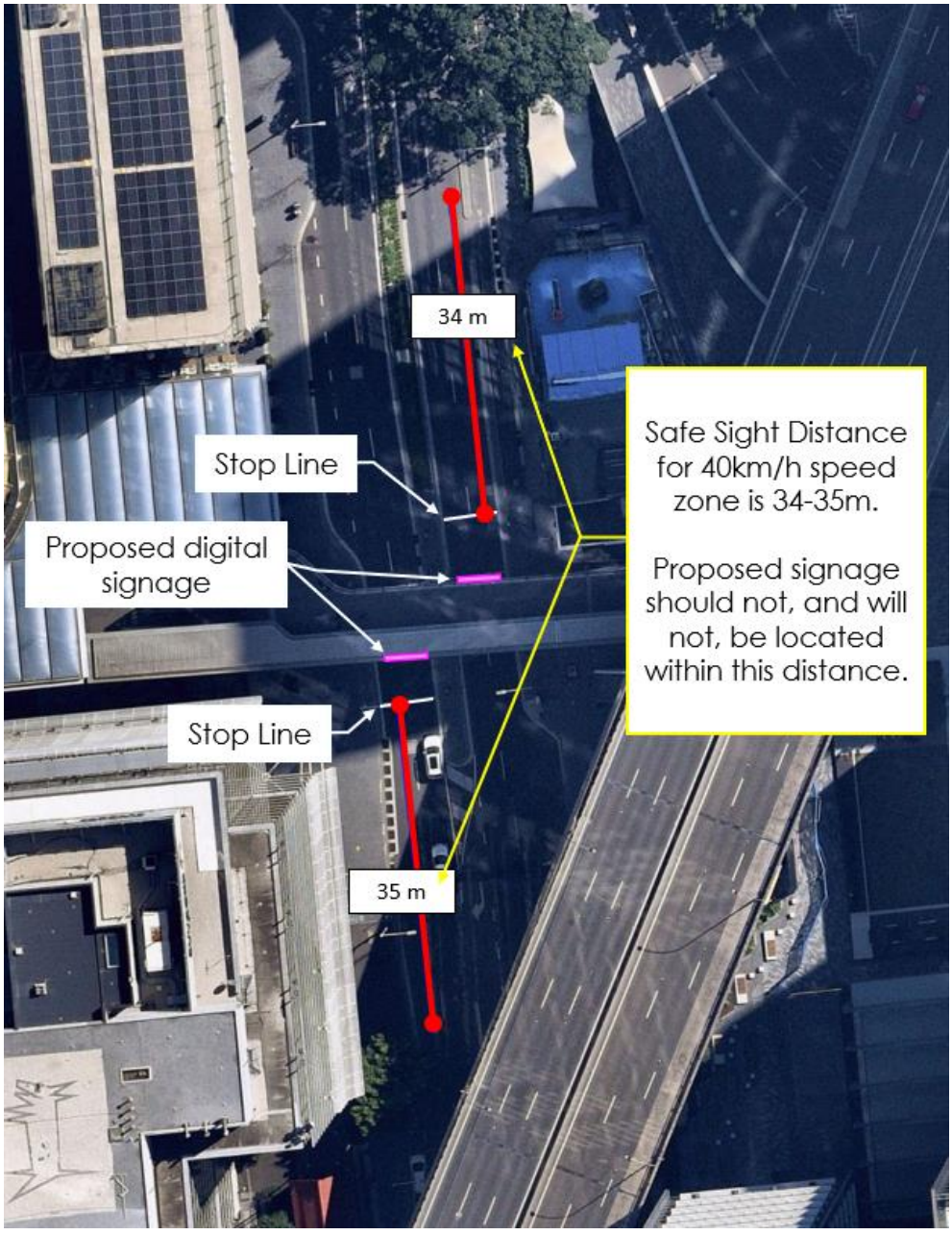
As referenced in the Guide to Road Design, Part 3, sight distance refers to the distance required to enable a driver to react and stop before reaching a hazard. This distance is dependent on the operating (85th percentile) speed of the road, road gradient and other road characteristics.

For the purpose of this assessment, an operating speed of 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 on Sussex Street (being 40 km/h) 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 34 m.

On the south approach, there is a slight downward slope towards the pedestrian footbridge. Which has been taken as approximately 2%. Where there is a slope on the approach, the Guidelines specifies a grade correction factor be applied. In this case, a correction of 1 m is added to the 34 m safe sight distance. Therefore, the safe sight distance becomes 35 m.

On this basis, the proposed signage should not be located within 34 m on the north approach and 35 m on the south approach to the traffic signals and marked foot crossing. The signage is proposed to be installed on the pedestrian footbridge that is erected above a signalised mid-block crossing but also behind the stop line at the traffic signals. Therefore, the digital signage would not be located within the safe stopping sight distance as shown in Figure 3.1.

Figure 3.1: Safe Stopping Sight Distance



As a measure to mitigate any preserved safety risk of the signage placement in the vicinity of the traffic signals, it is recommended that the minimum dwell time for content displayed on the digital signage be increased from the suggested duration as stipulated by the *Transport Corridor Outdoor Advertising and Signage Guidelines*.

For signage that is in an area having a speed limit below 80 km/h, the Guidelines prescribe a dwell time of 10 seconds. However, it is suggested that this be increased to a minimum of 15 seconds. The basis for this recommendation is the Land and Environment Court Case, *Outdoor Systems Pty Ltd v Georges River Council and Roads and Maritime Services [2017] NSWLEC 1505*. In this case, a digital signage was proposed to be installed at the intersection of Princes Highway and Rocky Point Road in Kogarah. The applicant proposed to modify the dwell time of the digital signage to 15 seconds (from 24 hours, as previously approved by RMS as the minimum dwell time). The LEC deemed the reduced dwell time to 15 seconds appropriate on the basis that the crash history at the proposed signage location did not suggest that it was "a crash hotspot". This decision was driven by expert evidence provided by registered psychologist and RMS accredited Level 3 Road Safety Auditor, Carolyn Samsa, who spent five years working in the NSW Centre for Road Safety at the RTA and nine years in the advising industry associations representing outdoor advertising.

The LEC decision was further supported by the fact that during a 3-month period where the digital signage operated with a 10 second dwell time, there were no crashes reported in the vicinity of the sign. Furthermore, it was acknowledged in the court case that there were three other digital billboards that were previously approved and operational at signalised intersections within the Sydney basin with dwell times of approximately 10 seconds and yet there were no reported incidents of drivers being distracted by these signs as far as Samsa had been aware.

Similarly on Sussex Street, historical crash data within the viewable distance of the proposed digital signage does not indicate this location to be a crash hotspot. In the most recent 5-year period, there was one incident recorded on Sussex Street (a cyclist was dismounted from their bicycle due to the uneven road surface) which is unrelated to any potential safety concerns caused by the proposed digital signage. On this basis, a dwell time of 15 seconds, a five second increase on the 10 seconds dwell time prescribed by the Guidelines, is deemed to be appropriate.

It is recognised that there is an on-street cycleway on Sussex Street north approach which runs parallel to the traffic stream. The cycleway is physically separated from the traffic lane by a raised median that is approximately 400 mm in width. Given the physical separation between motorists and the cycleway, there would be no hazard resulting from the proposed digital signage. Furthermore, the proposed digital signage will not obstruct a driver's view of the cycleway and therefore, visibility to the cycleway would be maintained.

On the north approach, there are two side streets which intersect with Sussex Street, namely, Watermans Quay and Napoleon Street. Therefore, visibility of the proposed signage has been reviewed from these two locations.

Watersmans Quay is approximately 230m from the proposed digital signage location. From the first car bay position on Watermans Quay, visibility to the proposed signage is impeded by oncoming traffic in the left-turn lane entering Watermans Quay from Sussex Street. This is shown in Figure 3.2. From Napoleon Street, visibility to the proposed signage is obstructed by the Napoleon Bridge infrastructure (bridge structure, stairs, elevator) as shown in Figure 3.3.

On this basis, the digital signage would not be visible from the stem (side street) at these intersections.

Figure 3.2: Driving View from Watermans Quay

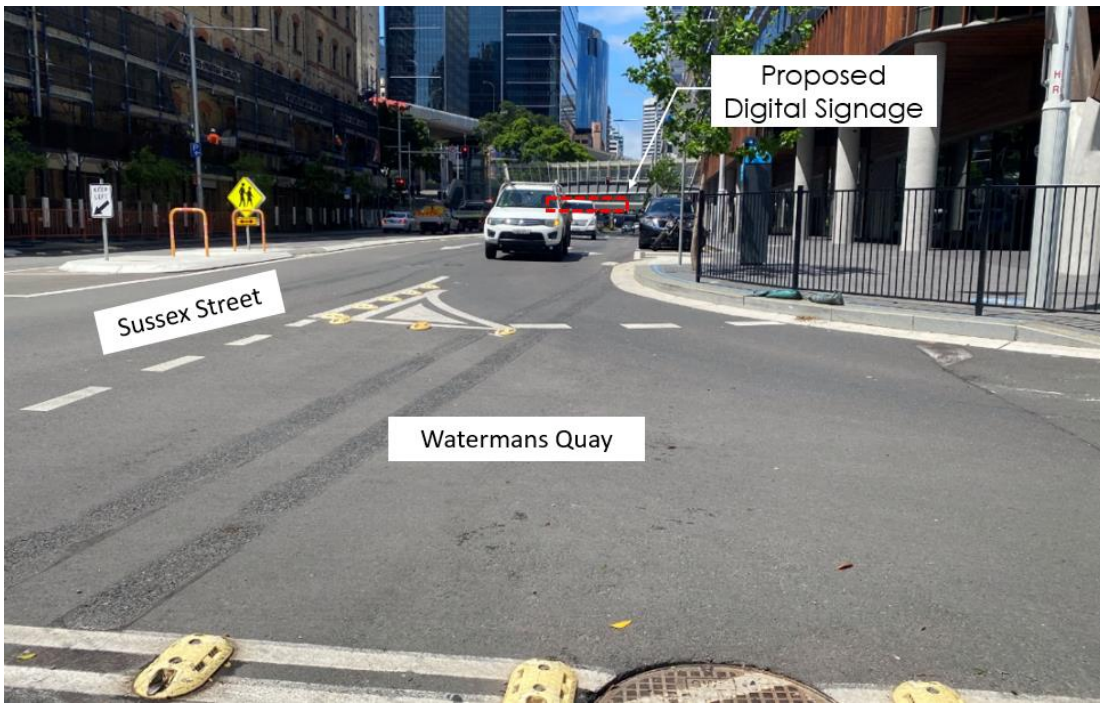
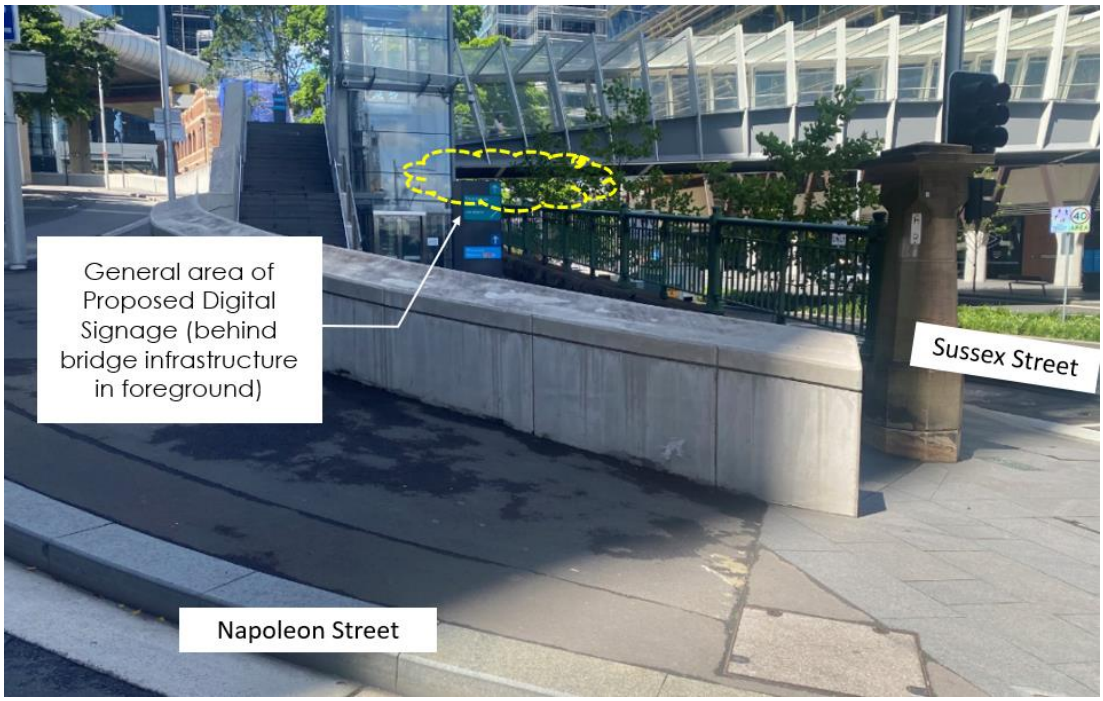


Figure 3.3: Driving View from Napoleon Street



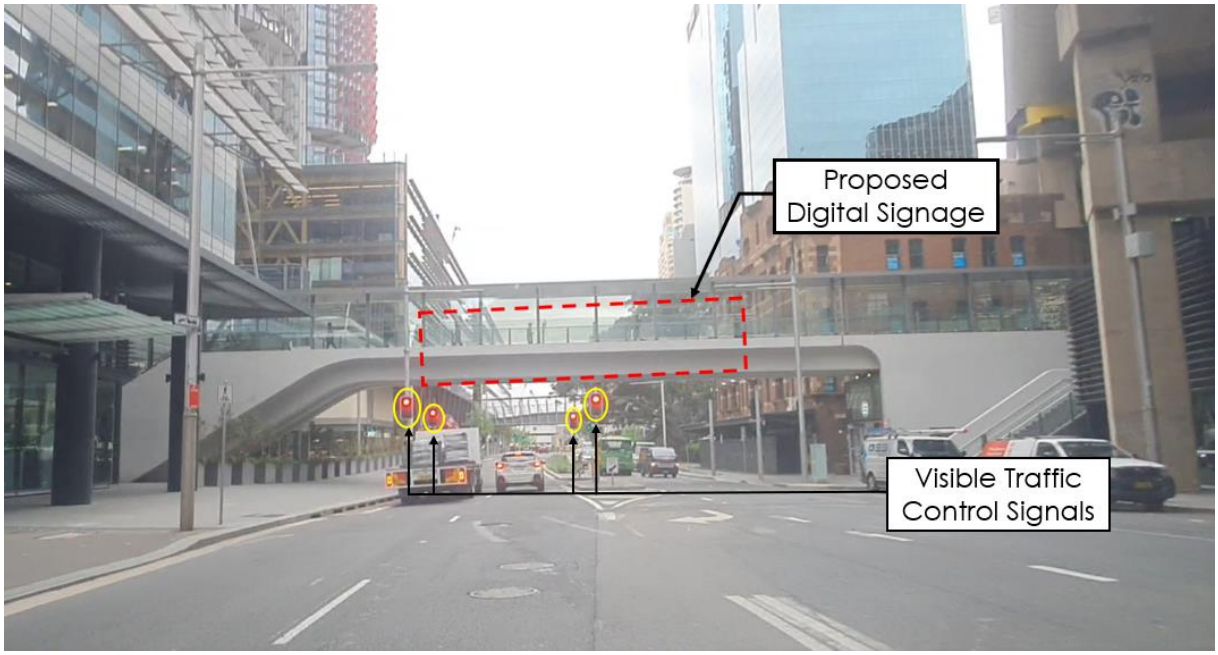
(b) The placement of a sign should not distract a driver at a critical time. In particular, signs should not obstruct a driver's view:

- ***(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 decision is required, implying that a road safety implication could occur if a driver was distracted at this time.

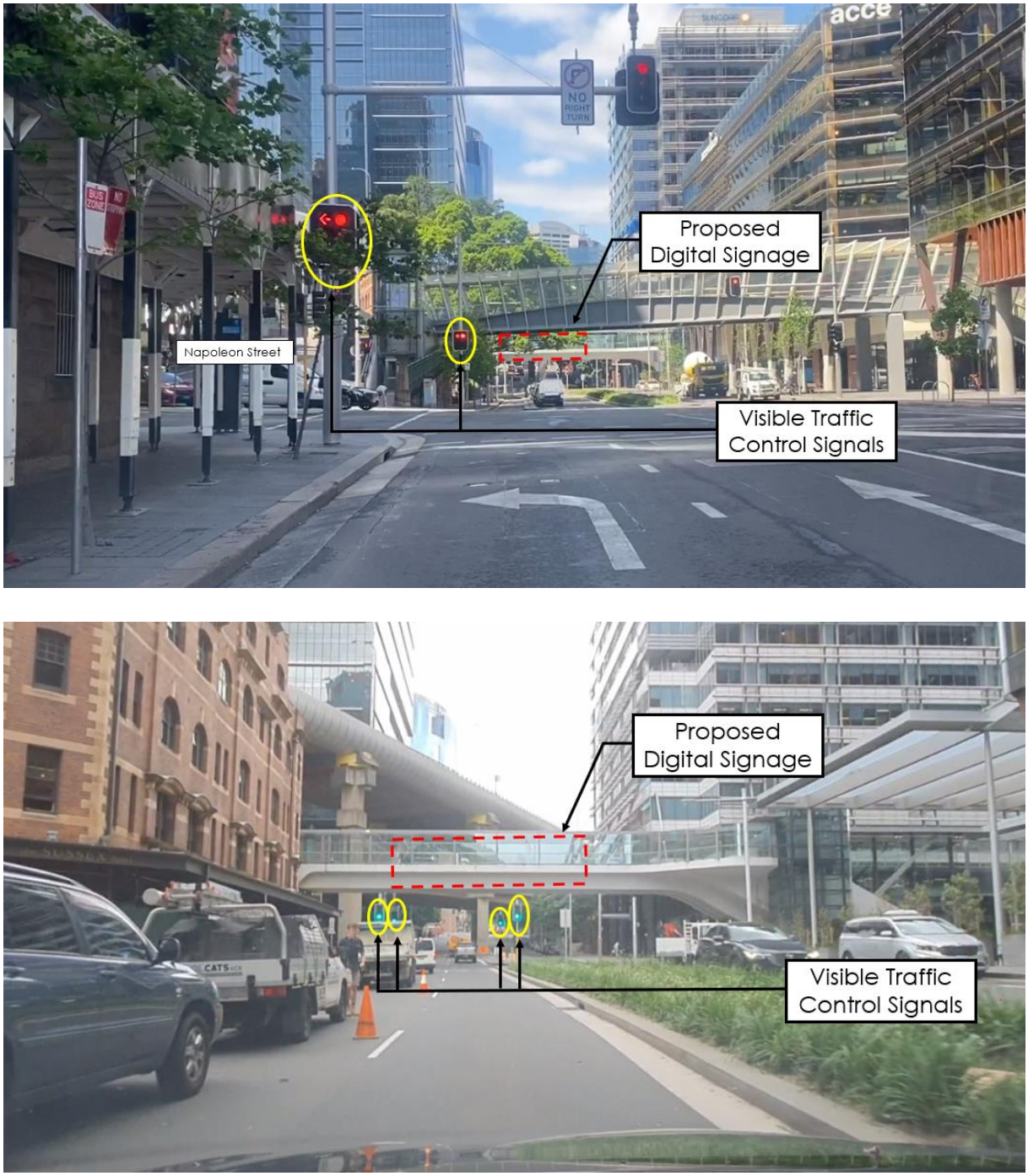
Within the visible distance on both approaches, the proposed digital signage is always positioned well-above the traffic signal lanterns on Sussex Street, as shown in Figure 3.4 and Figure 3.5. Given that the road alignment on approach to the proposed signage is straight with a posted speed limit of 40 km/h, there is sufficient time for motorists to view the signage without it causing distraction or shifting driver focus away from the traffic signals.

Figure 3.4: Driving View of Traffic Signals on South Approach



Source: Photograph taken by TTPP dated 28/10/2020

Figure 3.5: Driving View of Traffic Signals on North Approach



Source: Photograph taken by TTPP dated 28/10/2020

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 will be assessed by RMS as part of their concurrence role.

There are no other digital signs or static billboards placed within 150m of the proposed signage in both directions.

3.2 Sign Design and Operation Criteria

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 advertisements as depicted in the designer's impression (Figure 2.4 and Figure 2.8), the signage would not display colours and shapes which could be mistaken for a traffic signal.

Notwithstanding this, it is recommended that the content of the proposed signage 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 signage 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 or triangles or shapes or 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.

3.2.2 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 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.

The digital signage is proposed to contain text and images. Based on the NSW Guidelines, the minimum dwell time for content displayed on the digital signage would be 10 seconds. However, since that the proposed digital signage is located within close proximity to traffic signals, it is recommended that the dwell time be increased from 10 seconds to 15 seconds as explained in Section 3.1.1.

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 NSW 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.

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

3.3 Digital Signs

Transport Corridor Advertising 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, these criteria should be included as part of the consent conditions for the proposal to ensure future compliance.

Table 3.1: Digital Signs

	Criteria	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.
B	*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.
C	*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 3.2.2, a dwell time of 15 seconds would be suitable for the proposed digital signage.
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 signage would be classified as Zone 1, with no limit to illuminance levels. Note: Zone 1 covers areas with generally very high off-street ambient lighting, e.g. display centres similar to Kings Cross, central city locations.
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.
H	*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 within a school zone.
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*	Noted.

	Criteria	Comments
	sign being visible from each direction, both directions for each location must be assessed on their own merits.	
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 will be assessed by RMS as part of their concurrence role.*	Noted.
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 proposed digital signage would maintain the same vertical clearance as the pedestrian bridge which is 5.5m.
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.

4 Conclusion

Having consideration for the assessment and discussions presented within this report, the analysis suggests that the installation of a digital signage off the side of the existing pedestrian footbridge across Sussex Street would be acceptable.

The Guidelines stipulate that the dwell time for an image display must not be less than 10 seconds for areas where the speed limit is below 80 km/h. The digital signage is proposed in an area that is zoned as 40 km/h, and thus, a minimum dwell time of 10 seconds is applicable. However, since the proposed digital signage is located within close proximity to traffic signals on Sussex Street, it is recommended that the minimum dwell time be increased to 15 seconds.

Historically, there is a low number of crashes recorded in this section of Sussex Street, and therefore it is deemed to be a low risk area.

This conclusion is made on the basis that the proposed signage would not be expected to:

- Obstruct/ reduce visibility of any traffic control devices, pedestrians or cyclists
- Give incorrect information on the alignment of the road
- Interfere with the safe stopping distance to traffic signals, crossings or directional/ information signage
- Compromise safety for road users in the vicinity.

Appendix A

Concept Design Plans

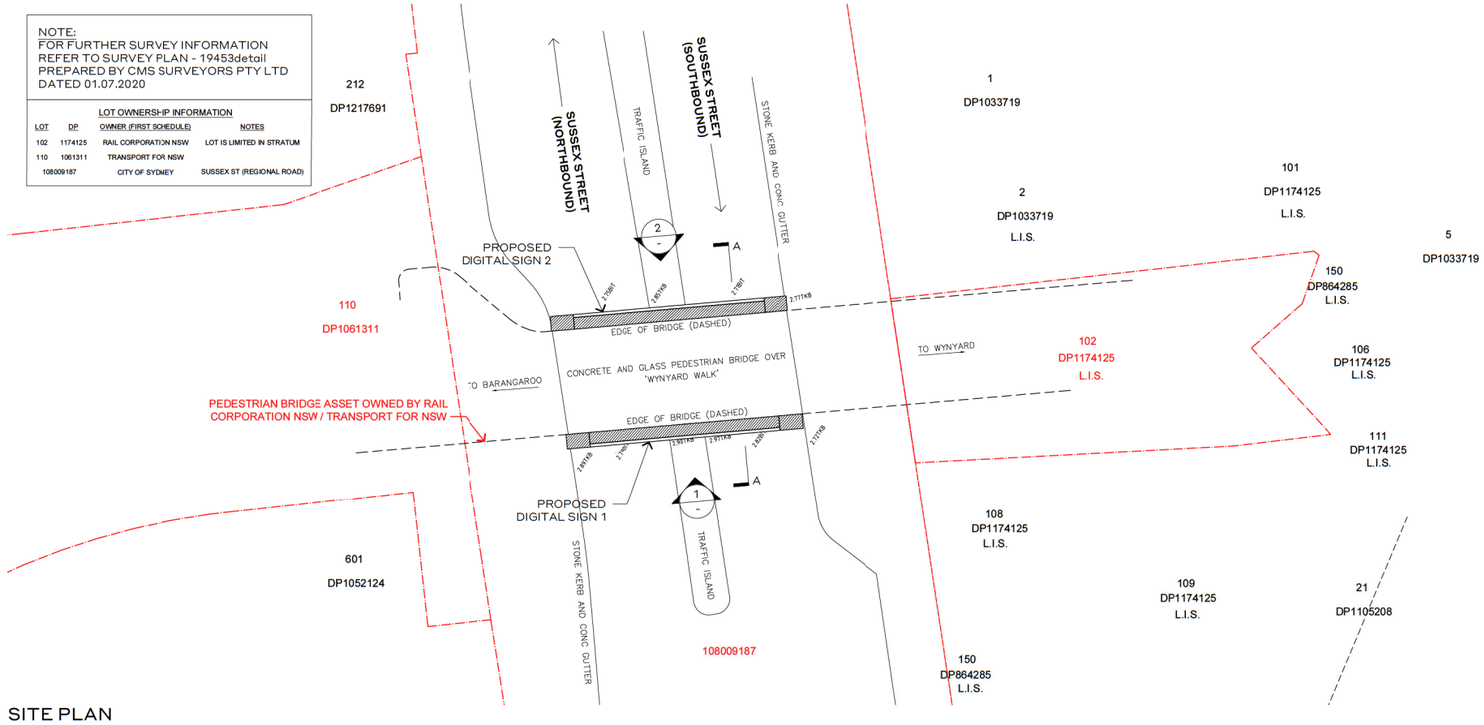
AERIAL PHOTO

NTS

NOTE:
FOR FURTHER SURVEY INFORMATION
REFER TO SURVEY PLAN - 19453detail
PREPARED BY CMS SURVEYORS PTY LTD
DATED 01.07.2020

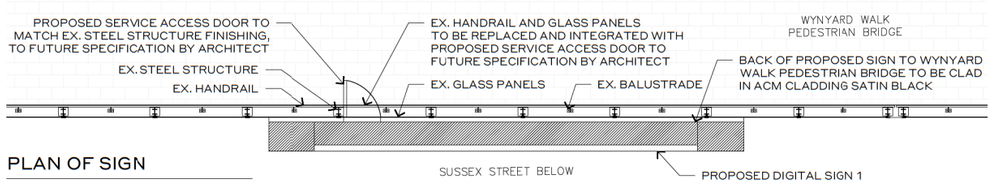
LOT OWNERSHIP INFORMATION

LOT	DP	OWNER (FIRST SCHEDULE)	NOTES
102	1174125	RAIL CORPORATION NSW	LOT IS LIMITED IN STRATUM
110	1061311	TRANSPORT FOR NSW	
108009187		CITY OF SYDNEY	SUSSEX ST (REGIONAL ROAD)



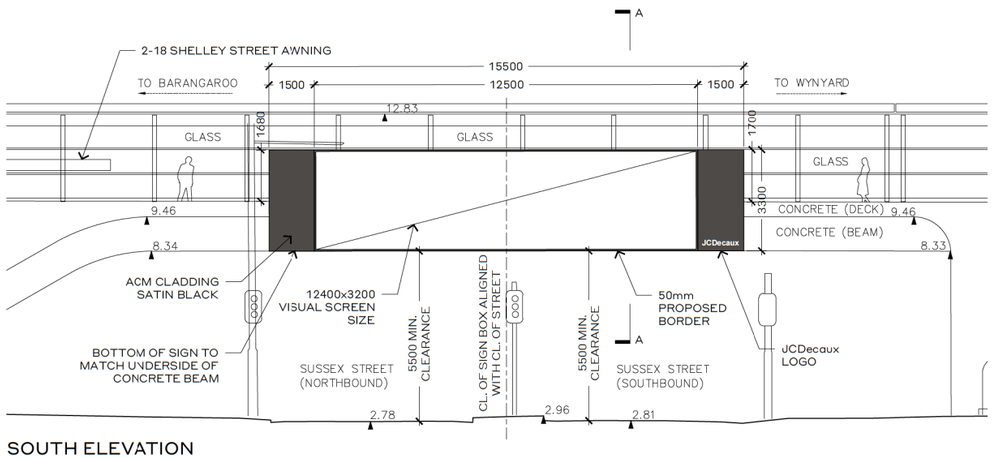
SITE PLAN

SCALE 1:200 @ A1



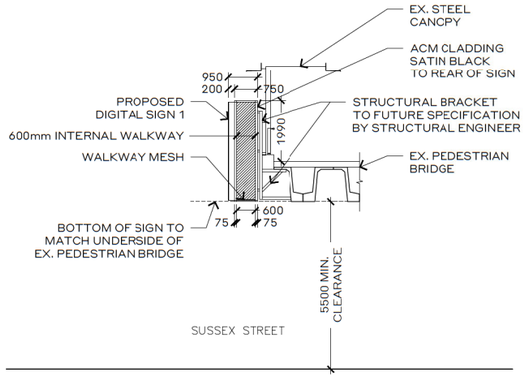
PLAN OF SIGN

SCALE 1:100 @ A1



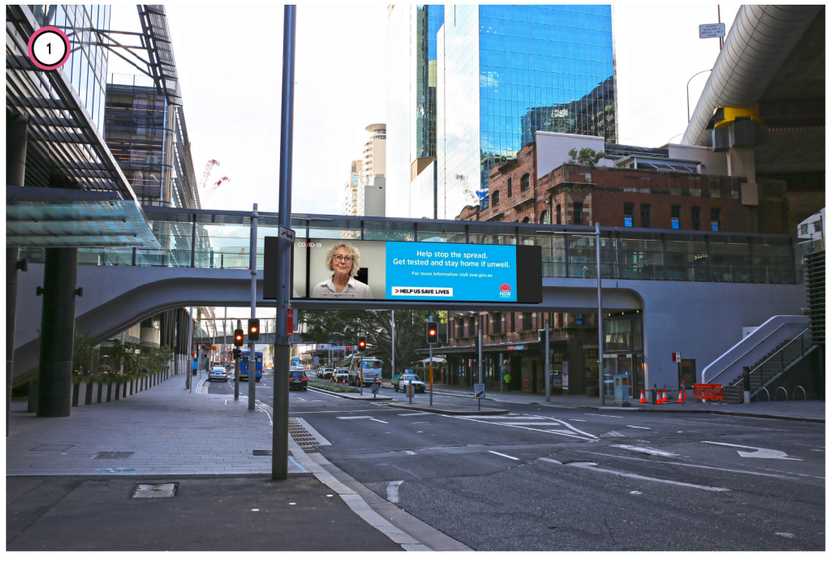
SOUTH ELEVATION

SCALE 1:100 @ A1



SECTION A-A

SCALE 1:100 @ A1



PHOTOMONTAGE - VIEW 1

View from Sussex Street looking north

NOT FOR CONSTRUCTION

ETHOS URBAN

Ethos Urban Pty. Ltd.
ABN 13 615 087 931 ACN 615 087 931
www.ethosurban.com
173-185 Sussex Street Sydney NSW 2000
t +61 2 9956 6962

LEGEND / NOTES

- Site boundary
- Photomontage location
- Proposed sign (NTS)

ACM	Aluminium composite material
CL	Centre line
EX	Existing
LIS	Limited in stratum

ISSUE	DATE	REVISION	REVISION BY	APPROVED BY
P1	08.07.20	Work in progress	PN	SM
P2	06.08.20	Draft issue	PN	SM
P3	14.08.20	Draft issue	PN	SM

DRAFT

PROJECT

DOOH Development Applications
Prepared for Sydney Trains

SCALE
AS SHOWN @ A1

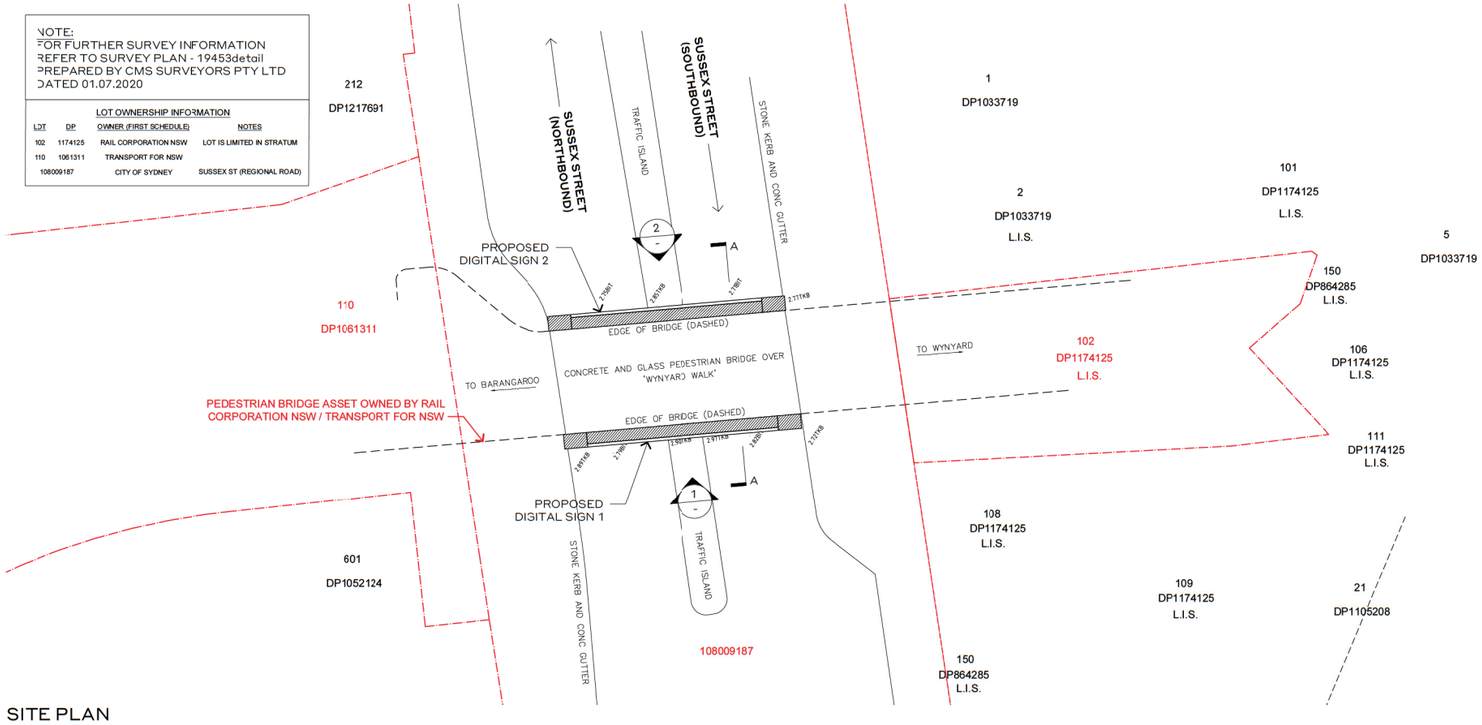
DRAWING

Site Plan & General Arrangement **A-3.1**
Site 3 - Sydney CBD (Sussex Street - Southern Side) /P2

JOB NO.	DWG NO.	ISSUE	DATE	DRAWN BY
2200249	A-3.1	P3	14.08.20	PN

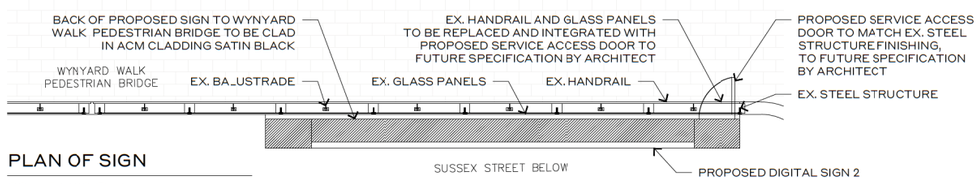
AERIAL PHOTO

NTS



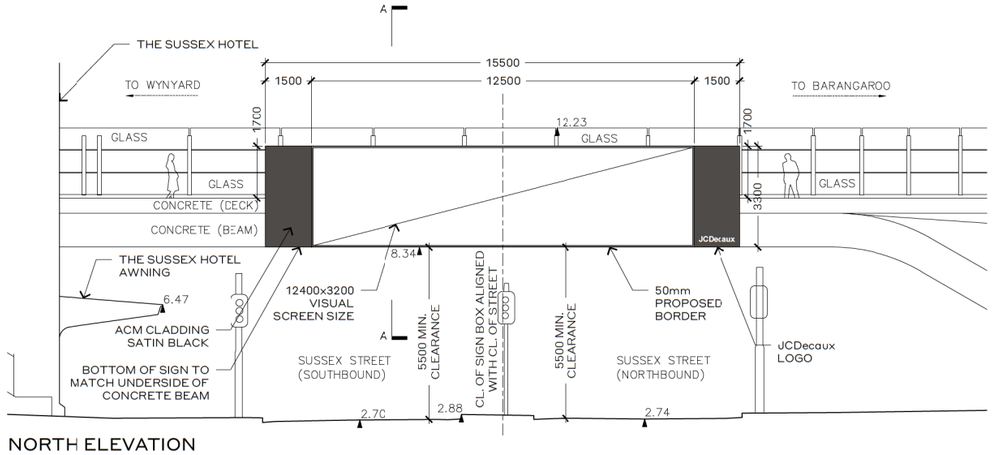
SITE PLAN

SCALE 1:200 @ A1



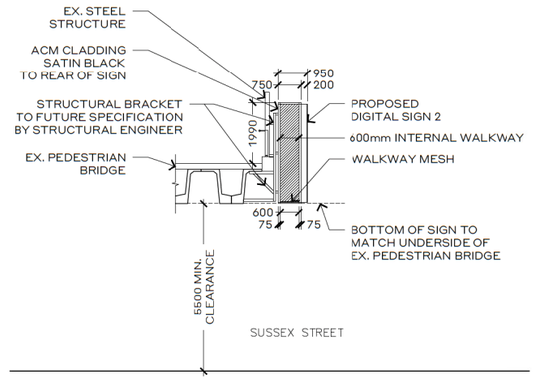
PLAN OF SIGN

SCALE 1:100 @ A1



NORTH ELEVATION

SCALE 1:100 @ A1



SECTION A-A

SCALE 1:100 @ A1

PHOTOMONTAGE - VIEW 2

View from Sussex Street looking south

NOT FOR CONSTRUCTION

ETHOS URBAN

Ethos Urban Pty. Ltd.
ABN 13 615 087 931 ACN 615 087 931
www.ethosurbar.com
173-185 Sussex Street Sydney NSW 2000
t +61 2 9956 6962

LEGEND / NOTES

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- Photomontage location
- Proposed sign (NTS)

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P3	14.08.20	Draft issue	PN	SM

DRAFT

PROJECT

DOOH Development Applications

P-epared for Sydney Trains

SCALE
AS SHOWN @ A1

DRAWING

Site Plan & General Arrangement **A-3.2**

Site 3 - Sydney CBD (Sussex Street - Northern Side) /P2

JOB NO.	DWG NO.	ISSUE	DATE	DRAWN BY
2200249	A-3.2	P3	14.08.20	PN

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