KEYLAN
consulting pty ltd

Suite 2, Level 1
1 Rialto Lane
Manly NSW 2095

Statement of Environmental Effects

Digital Advertising Signage
Gore Hill Freeway, Artarmon

Prepared for JCDecaux on behalf of Sydney Trains
Submitted to the Department of Planning, Industry and Environment

February 2022

KEYLAN
consulting pty ltd

Suite 2, Level 1
1 Rialto Lane
Manly NSW 2095
ABN 51 45 22 11 892
ACN 613 590 775

This report has been prepared by:

Sammy Hamilton BP
Planner
E: sammy@keylan.com.au

Padraig Scollard BA MURP
Principal Planner
E: padraig@keylan.com.au

This report has been reviewed by:

Michael Woodland BTP MPIA
Director
E: michael@keylan.com.au

Cover image: Indicative photomontage of proposed signage (Source: JCDecaux)

Revision	Prepared by	Reviewed by	Date	Revision Type
1	SH/PS	MW	17/02/2022	Final

Table of Contents

Figures

Tables

Appendices

Project Summary

Project Element	Summary of the project
Proposed Signage	• removal of an existing static sign located within the rail corridor to the north of the Gore Hill Freeway • installation of a new digital sign on the western elevation of the Gore Hill Freeway Overpass
Advertising Display Area	• Dimensions: 12.53m x 3.75m (including logo) • Area: 46.99m^2
Visual Screen Size	• Dimensions: 12.48m x 3.2m • Area: 39.94m^2
Site Description	• Lot 1 in DP1190229
Visual Impacts	• anticipated visual impacts are low with consideration of the context of the area with the Gore Hill Freeway being well screened by existing dense vegetation to the north and south of the carriageway. • an assessment of visual impacts is provided at Section 5.3
Lighting Impacts	• the digital sign is capable of complying with all relevant lighting standards and will not result in obtrusive illumination • further detail on the anticipated impacts of signage illumination is provided at Section 5.2
Road Safety Impacts	• the proposed signage poses a low risk to the existing road conditions • an analysis of crash data within the vicinity of the site has concluded that it is a low risk environment as further detailed at Section 5.1
Public Benefit	• a Public Benefit Statement has been prepared by Sydney Trains (Appendix 4) • the statement confirms the revenue will support essential Sydney Trains services, the proposed sign will be available for emergency messaging and messaging from Sydney Trains and TfNSW for 5 minutes per hour
Hours of Operation	• 24 hours, 7 days a week
Cost of Works	• $683,100

Table 1: Project Summary

1 Introduction

This Statement of Environmental Effects (SEE) has been prepared by *Keylan Consulting Pty Ltd* (Keylan) for JCDecaux on behalf of *Sydney Trains* (the Applicant) to accompany a Development Application (DA) for the removal of an existing static sign located within the rail corridor to the north of the Gore Hill Freeway and erection of a new digital advertising signage on the western elevation of the Gore Hill Freeway Overpass, Artarmon.

As Sydney Trains is the Applicant, the Minister for Planning and Public Spaces (the Minister) is the consent authority for the application, as prescribed under clause 12(c) of SEPP 64. Accordingly, this SEE has been prepared and is submitted to the Department of Planning, Industry and Environment (DPIE) pursuant to the provisions of Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

As the Applicant is a public authority, the subject application is a Crown Development Application pursuant to Part 4 Division 4.6 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Further, pursuant to the provisions of section 4.44, Division 4.8 of the EP&A Act, the subject application is not integrated development as it is made by or on behalf of the Crown.

This SEE includes a detailed assessment of the operation of the proposed digital advertising signage against the requirements outlined in the *Transport Corridor Outdoor Advertising and Signage Guidelines, Assessing Development Applications under SEPP 64* (DP&E, 2017) (SEPP 64 Guidelines).

The proposed development comprises the removal of the existing static sign on the northern side of the Gore Hill Freeway and the erection of a new digital sign on the adjoining railway bridge facing west. The new digital advertising sign provides:

- an advertising display area of 46.99m^2 (Supersite)
- a visual screen size of 39.94m^2
- reduces the visual screen area of the existing sign by 6%
- the continued display of illuminated advertisements
- a minimum 25 second dwell time for message changes
- a maximum night time luminance of 350 cd/m^2
- webcam mounted on a safety arm to monitor visual content

The application seeks consent to operate the sign for a period of 15 years. The estimated cost of works of the development is $683,100.

This SEE should be read in conjunction with the following supporting documents:

Supporting documentation	Appendices
SEPP 64 & Transport Corridor Advertising and Signage Guidelines Assessment	Appendix 1
Architectural Plans	Appendix 2
Traffic Safety Assessment	Appendix 3
Lighting Impact Assessment	Appendix 4
Public Benefit Statement	Appendix 5
Site Survey	Appendix 6

Table 2: List of Appendices

1.1 Pre-lodgement meeting

On 2 December 2021, a DA pre-lodgement meeting was convened with DPIE to discuss key issues associated with the development application.

The meeting provided an opportunity for JCDecaux to introduce the site and the proposal and to facilitate discussion on key issues that are considered as part of this DA.

Key issues discussed include:

- **Road Safety** – concurrence from Transport for NSW (TfNSW) is recommended.
- **Amenity** – proposals should have regarding to neighbouring residential uses and potential light spill
- **Visual Impact** – proposals should avoid blocking other signs and seek to reduce visual clutter
- **Heritage/National Parks** – proposals should respect architecture of bridges and sensitive areas
- **Public Benefit** – proposals should show how they are specifically providing public benefit under SEPP 64

This application has been prepared with consideration of the issues raised by DPIE during the pre-lodgement meeting. These issues are addressed at Section 5.

2 The site and locality

2.1 Site Description

The Gore Hill Freeway is a classified road (MR651 (part)) that travels in a general north-west to south-east alignment. Gore Hill Freeway extends from Naremburn to Lane Cove, providing an alternative route to the Pacific Highway and reduce subsequent traffic demands on one sole road.

The Gore Hill Freeway overpass facilitates the T1 North Shore & Western Line which serves the North Shore, parts of the Inner West and Western Suburbs. The subject site is screened by mature vegetation from development to the north and south sides of the Freeway.

The subject site in context to the surrounding area is shown in Figure 1.

The overpass, as viewed from the Gore Hill Freeway (southbound) is shown in Figure 2. There are no existing advertising signs on the overpass. However, there is an existing sign located to the north of the overpass, proposed to be removed under this application.

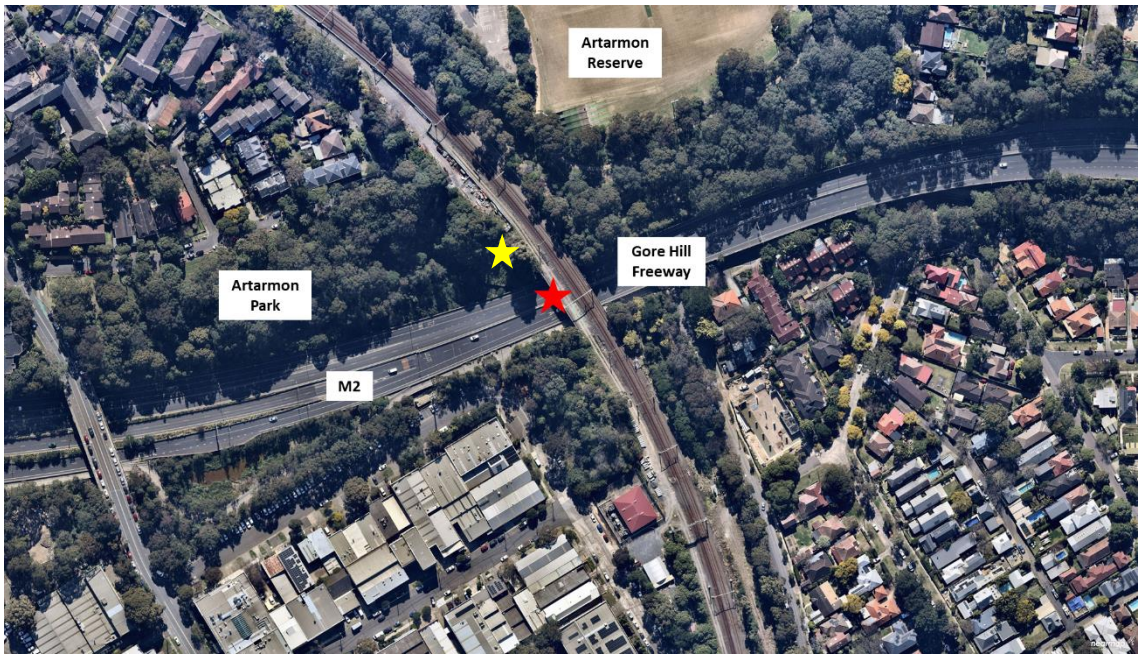

Figure 1: Site context – site of existing sign shown in yellow, site of new sign shown in red (Base source: Nearmap)

Figure 2: Gore Hill Freeway overpass – view southbound (Source: Google Maps)

2.2 Existing Road Environment

Gore Hill Freeway is an established road corridor which predominantly comprises of three traffic lanes in both directions but transitions to two lanes as it connects to the Lane Cove Tunnel.

A speed limit of 80 km/h applies both west and east of the overpass.

There are no pedestrian footpaths or cycle lanes along the Gore Hill Freeway in proximity to the site and no parking is permitted. On road cycling is permitted, however no formal cycling facilities are provided.

2.3 Surrounding Locality

The advertising sign will be located within an established Sydney Trains corridor and visible from the Gore Hill Freeway and the M2 where it meets the Freeway. Development surrounding the site and in proximity to the road corridor includes:

- Vegetation to the north and south, on either side of the Freeway, screening the road corridor from adjoining residential development
- Artarmon Park located 150m to the northwest
- Light industrial uses located 80 metres to the southwest
- Medium density housing 130 metres northwest of the overpass

3 The Proposal

The proposal involves the installation of a digital advertising sign attached to the western elevation of the railway overpass above the Gore Hill Freeway in Artarmon. The proposal also includes the removal of the existing signage located to the northern of the overpass, within the rail corridor.

The development is summarised in Table 3 below.

Development Aspect	Description
Development summary	Removal of an existing static sign located within the rail corridor to the north of the Gore Hill Freeway and installation of a new digital sign on the western elevation of the Gore Hill Freeway Overpass
Signage location	Sign is proposed on the western elevation of the railway overpass (visible to southbound traffic)
Advertising display area	46.99m^2 (12.53m x 3.75m including logo)
Visual screen size	39.94m^2 (12.48m x 3.2m)
Road clearance from ground level to the sign	6.44 metres clearance to overpass
Dwell time	Minimum 25 seconds
Signage exposure	Visibility is from a distance of 320 metres west of the sign.
Illumination	The digital signage is illuminated using LEDs installed within the front face
Consent time period	15 years
Existing signage	Existing up-lit sign located on the northern embankment of the Highway and provides a visual display area of 12.66m x 3.35m (42.41m^2). The visual screen area of the proposed sign is 6% smaller than the existing sign.

Table 3: Development summary

Architectural drawings for the sign are shown in Figure 3 and Figure 4 and provided within the Architectural package at Appendix 2.

Indicative image of the sign, as viewed from Gore Hill Freeway, is provided at Figure 5.

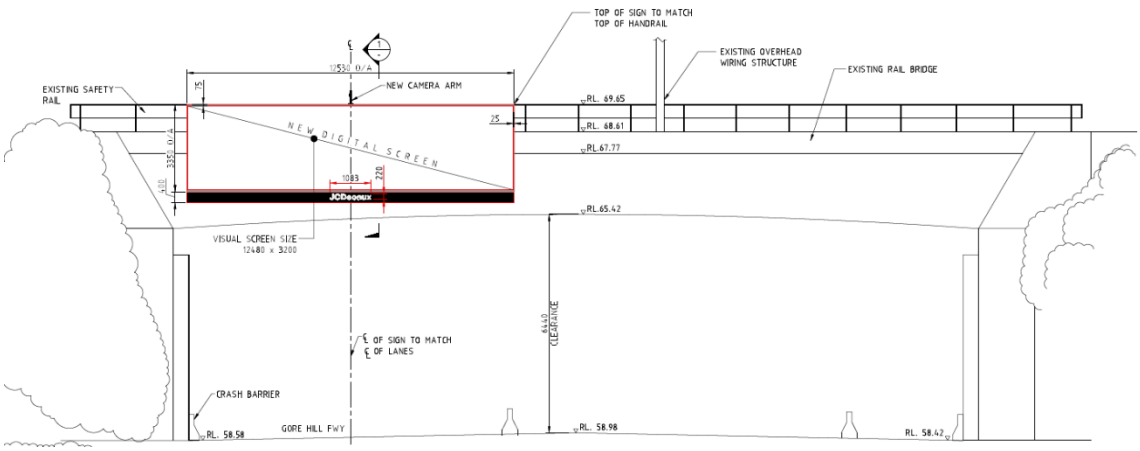

Figure 3: Digital signage plan (Source: Dennis Bunt Consulting Engineers)

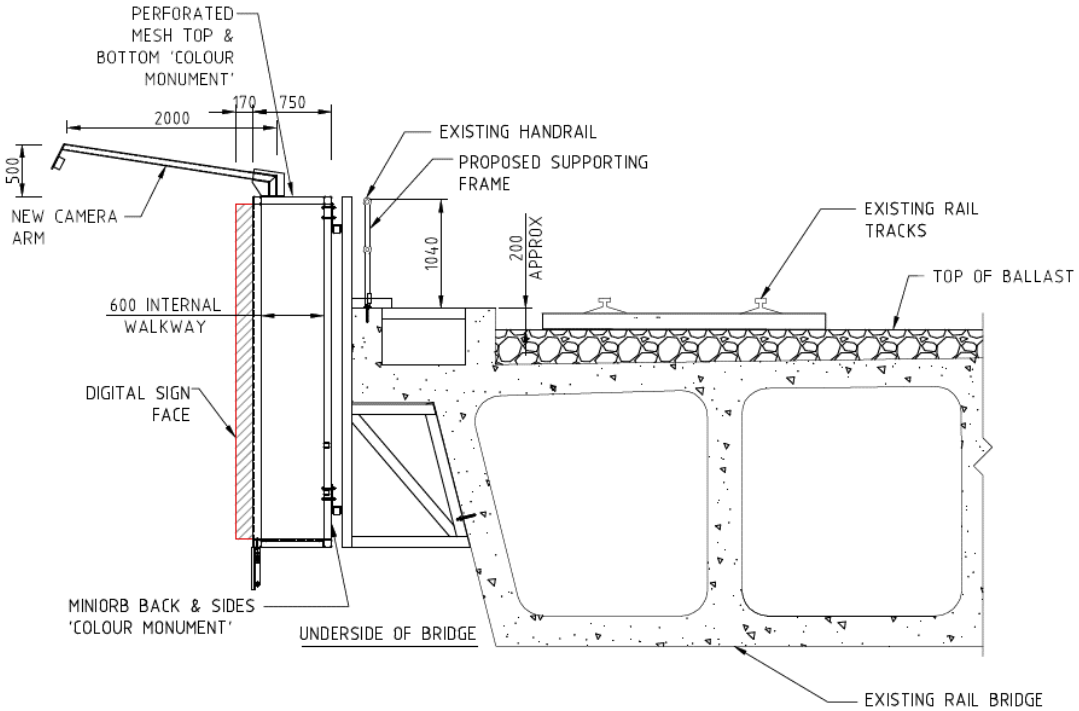

Figure 4: Section of proposed sign (Source: Dennis Bunt Consulting Engineers)

Figure 5: indicative photomontage of proposed sign as viewed heading southbound on Gore Hill Freeway (Source: JCDecaux)

3.1 Removal of existing signage

It is proposed to remove the existing static signage to the north of the overpass shown in the figure below. The removal of this signage will ensure compliance with the SEPP 64 Guidelines and reduce any potential visual clutter.

Figure 6: Existing signage to be removed outlined red (Source: Keylan)

3.2 Digital LED Technology for Outdoor Advertising

Outdoor advertising requires changeable signs or images. Traditional outdoor advertising billboards require manual change of materials (paint, paper and vinyl) either pasted onto billboards or tensioned across support frames. The introduction of digital technology has enabled new methods to change signage without regular manual change to the advertising signage.

A LED or digital screen will present a very high quality image by adopting a pixel pitch of 10 mm in accordance with industry standards. A digital screen is comprised of a cluster of red, green, blue and amber diodes driven together to form a full colour pixel usually square in shape. These pixels are spaced evenly apart and are measured from centre to centre for absolute pixel resolution.

The proposed digital advertising sign will only display static content. The LED display will not scroll, flash or feature motion pictures or emit intermittent light. The advertising signage includes an operation management system to ensure that only static images are displayed.

3.3 Digital LED Screen Operation and Management

JCDecaux will operate the content management system for the advertising signage. This management system ensures that unapproved content is not downloaded either by mistake or without appropriate authorisation.

A webcam will monitor operation of the sign 24 hours a day. A motion threat response is built into the display, which will make the screen incapable of displaying movement or live video feed. In the event that unapproved content is displayed the signage will, by default, revert to a black screen format immediately.

The LED screen will display content in feed cycles that are sequentially rotated on a loop cycle. Static digital advertisements will appear on the screen for a 25 second dwell time before changing to a new static digital image. There will be a 0.1 second transition time between images, which appears instantaneous.

The proposed dwell time is consistent with the global and national operation of LED screens, variable messaging and scrolling technology as demonstrated below:

- the dwell time for electronic signage in the United States is typically 8 seconds
- scrolling technology is typically 7 to 8 seconds
- NSW TfNSW variable messaging signage works on a 3 second transition time for both information and emergency displays
- the 25 second dwell time specified for this 80km/hr speed zone is consistent with the SEPP 64 Guidelines

JCDecaux will implement content controls for the proposed signage, including:

- no tobacco products
- no overtly religious advertising
- no advertising that contains overt and sexually graphic images
- no pornography and illegal drugs.

Further, all advertising copy material will comply with the following:

- Australian Advertising Industry Code of Conduct
- The Outdoor Media Association (OMA) Code of Conduct.

4 Statutory Planning Framework

4.1 Environmental Planning and Assessment Act 1979

As the Applicant is a public authority, the subject application is a Crown Development Application pursuant to Part 4 Division 4.6 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

Under section 4.44 of the EP&A, integrated development provisions under Division 4.8 of the EP&A Act do not apply to Crown Development Applications (other than development that requires a heritage approval). Accordingly, the subject application is not integrated development.

The proposal is consistent with the objects of the EP&A Act as it is considered to promote the orderly and economic use and development of land without resulting in an adverse impact on the environment. Detailed assessment against the objects of the EP&A act is provided below.

Objective	Comment
(a) To promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,	The development promotes the social and economic welfare of the community by generating revenue to improve and maintain the Sydney Trains network and provide messages to the community during key periods on behalf of the NSW Government and its associated entities.
(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,	This SEE provides information on the relevant economic, environmental and social impacts of the proposed development to enable the consent authority to undertake a thorough environmental assessment and assist in its decision-making on the application.
(c) to promote the orderly and economic use and development of land,	The development promotes the orderly and economic use of the land by providing a new digital advertising sign within an established transport corridor that will provide public benefits including the generation of revenue to contribute to improving and maintaining the Sydney Trains network.
(d) to promote the delivery and maintenance of affordable housing,	Affordable housing does not form part of this application.
(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,	The development will not impact on any threatened species or other species of native animals and plants, ecological communities and their habitats.
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	There are no significant historical or Aboriginal cultural heritage features at the site that will be impacted by the development.
(g) to promote good design and amenity of the built environment,	The development will be located within an established transport corridor. The design of the sign is considered to promote good design and will not have an adverse impact on the amenity of the surrounding location.

Objective	Comment
(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,	The development will be constructed and maintained in accordance with any conditions of approval issued by the consent authority and the relevant requirements that relate to health and safety, construction and maintenance.
(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,	This SEE is submitted to DPIE to enable an environmental assessment of the application. It is expected that the SEE will be referred by DPIE to other State agencies and Council for further assessment and comment.
(j) to provide increased opportunity for community participation in environmental planning and assessment.	As part of DPIE's assessment of the application, the SEE will be made publicly available and the community, Council and State agencies will be invited to provide comment via a submission on the proposal. Any submissions received will be addressed as part of a Response to Submissions Report.

Table 4: Assessment against Objectives of the EP&A Act

This section of the report provides the planning assessment against the key statutory environmental planning instruments and Development Control Plans relevant to the development. The following detailed assessment of the proposal is provided and which is based on the heads of consideration contained in section 4.15 of the EP&A Act.

Relevant Provision	Comment
(a) the provisions of:	
(i) any environmental planning instrument, and	The relevant environmental planning instruments are addressed at Section 4.
(ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and	The relevant proposed environmental planning instruments are addressed at Section 4.
(iii) any development control plan, and	The Willoughby Development Control Plan 2006 is addressed at Section 4.5.
(iiia) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and	No planning agreement or draft planning agreement has been entered into as part of this application.
(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph),	The application is consistent with the relevant matters of the EP&A Regulations.
(v) (Repealed)	N/A
(b) the likely impacts of that development, including environmental impacts on	The impacts of the proposal are addressed in Section 5.

Relevant Provision		Comment
	both the natural and built environments, and social and economic impacts in the locality,	
(c)	*the suitability of the site for the development,*	Site suitability is addressed at Section 5.4.
(d)	*any submissions made in accordance with this Act or the regulations,*	Any submissions made on this subject development application will be duly considered and addressed by Keylan.
(e)	*the public interest.*	Public interest is addressed at Section 5.5.

Table 5: Section 4.15(1) assessment

4.2 Roads Act 1993

The proposal is located above a public road and therefore requires approval under section 138 of the *Roads Act 1993 (*Roads Act):

> ***138 Works and structures***
> *(1) A person must not:*
> *(a)* ***erect a structure or carry out a work in, on or over a public road****, or*
> *(b) dig up or disturb the surface of a public road, or*
> *(c) remove or interfere with a structure, work or tree on a public road, or*
> *(d) pump water into a public road from any land adjoining the road, or*
> *(e) connect a road (whether public or private) to a classified road, otherwise than with the consent of the appropriate roads authority.*

The application will be referred to Transport for NSW in accordance with Section 138 of the Roads Act. However, pursuant to the provisions of section 4.44, Division 4.8 of the EP&A Act, the subject application is not integrated development as it is made by or on behalf of the Crown.

4.3 State Environmental Planning Policies

The proposal has been designed with regard to the objectives and standards of the relevant planning instruments and policies that apply to the site. Under the provisions of the EP&A Act, the key applicable state environmental planning policies are:

- *State Environmental Planning Policy No. 64 – Advertising and Signage*
- *State Environmental Planning Policy (Infrastructure) 2007*

The application of the above plans and policies is discussed in detail in the following sections of this SEE.

4.3.1 State Environmental Planning Policy No. 64 – Advertising and Signage

State Environmental Planning Policy 64 Advertising and Signage (SEPP 64) aims to ensure that advertising and signage is well located, compatible with the desired amenity of an area and of high quality. SEPP 64 applies to all signage, advertisements that advertise or promote any goods, services or events and any structure that is used for the display of signage.

Regardless of permissibility under the WLEP 2012, the proposed sign is permissible with consent under clause 16 of SEPP 64 as it is on behalf of Sydney Trains and is within a railway

corridor. Further, under clause 12(c) of SEPP 64, the Minister is the consent authority for the application as it is for an advertisement displayed on behalf of Sydney Trains in a rail corridor.

A comprehensive assessment against the provisions of SEPP 64 that apply to the development is provided at Appendix 1.

Schedule 1 Assessment

Clause 8 of SEPP 64 requires the consent authority to assess the proposal against the criteria within Schedule 1 prior to granting consent to carrying out of any development on that land. An assessment of these matters is provided in the table below:

Schedule 1	Comment	Compliance
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?	• The proposal is compatible with the existing and desired future character of the area is it removes a sign within an existing landscaped area and provides a new sign within a more suitable location on the Gore Hill Freeway Overpass. • The proposal is well placed to complement its environmental setting and to minimise visual impacts on the character of the area. • There is no identified theme for outdoor advertising in the area.	Yes
Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?		Yes
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?	• The Site is not a heritage item and is not located within a heritage conservation area or environmentally sensitive area.	Yes
3. Views and vistas		
Does the proposal obscure or compromise important views?	• The proposal does not obscure or compromise any important views as it sits within the soffit of the bridge structure and does not protrude above the structural boundaries of the bridge.	Yes
Does the proposal dominate the skyline and reduce the quality of vistas?		Yes
Does the proposal respect the viewing rights of other advertisers?		Yes
4. Streetscape, Setting or Landscape		
Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?	• The proposal involves the installation of a new sign with an advertising display area of 46.99m^2	Yes

Schedule 1	Comment	Compliance
Does the proposal contribute to the visual interest of the streetscape, setting or landscape?	and a visual screen size of 39.94m^2. • The visual screen size of the existing sign to the north of the site is 42.41m^2. The proposed sign therefore reduces the visual screen area of the existing sign by 6%. • The scale, proportion and form of the sign are appropriate as the proposal is located wholly within the dimensions of the structure of the overpass. • The proposal is appropriate for the streetscape as it will not detract from the existing road corridor and will complement the surrounding area.	Yes
Does the proposal reduce clutter by rationalising and simplifying existing advertising?		Yes
Does the proposal screen unsightliness?		Yes
Does the proposal protrude above buildings, structures or tree canopies in the area or locality?		Yes
Does the proposal require ongoing vegetation management?		Yes
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?	• The proposal is compatible with the scale, proportion and characteristics of the Site. • The front elevation, facing west is currently a blank surface. • The area of the proposal is appropriate for its location as it is currently a blank surface and presents an opportunity to enhance the visual amenity of the area. • The proposal does not protrude from the face of the overpass. • The proposal contributes to visual interest to the streetscape. The digital nature of the sign represents an innovative form of advertising.	Yes
Does the proposal respect important features of the site or building, or both?		Yes
Does the proposal show innovation and imagination in its relationship to the site or building, or both?		Yes
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?	• A security camera / web camera is proposed to ensure the display of the LED screen is working properly. A compliant operator logo will also be located at the bottom of the screen and within the skirting of the sign.	Yes
7. Illumination		
Would illumination result in unacceptable glare?	• A Lighting Impact Assessment (LIA) prepared by Electrolight is included at Appendix 4. • The LIA confirms that the proposed digital signage would not result in unacceptable glare or have any detrimental impacts to safety.	Yes
Would illumination affect safety for pedestrians, vehicles or aircraft?		Yes
Would illumination detract from the amenity of any residence or other form of accommodation?		Yes

Schedule 1	Comment	Compliance
Can the intensity of the illumination be adjusted, if necessary?	• The proposed signage incorporates baffles which reduce any upward light spill. • Additionally, the sign complies with all relevant criteria for luminance of digital advertisements. • A post-curfew operational period applies to the proposal whereby luminance is reduced during the hours of 11pm-6am.	Yes
Is the illumination subject to a curfew?		Yes
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?*	As demonstrated in the accompanying Traffic Safety Assessment at Appendix 3, the proposed digital sign is not anticipated to reduce the safety of drivers or cyclists along the Gore Hill Freeway. The traffic safety risks associated with a digital sign are not materially different to the traffic safety risks associated with the existing static sign. There is little evidence to suggest crashes (and associated risks) are linked to the existing sign apparent in the crash data. There are no on-road cycling facilities within the Gore Hill Freeway carriageway.	Yes

Table 6: Schedule 1, SEPP 64 Consideration

4.3.2 Transport Corridor Advertising and Signage Guidelines 2017

The *Transport Corridor Outdoor Advertising and Signage Guidelines* (SEPP 64 Guidelines) sets out a best practice approach for the planning and design of outdoor advertisements in transport corridors in NSW.

The SEPP 64 Guidelines have been established to compliment the provisions of SEPP 64 under the EP&A Act. The DA for any advertising sign that is located in, or adjacent to, a transport corridor to demonstrate how the proposal addresses the SEPP 64 Guidelines. An assessment against the criteria within SEPP 64 Guidelines is provided at Appendix 1 and Section 5.

The assessment provided at Appendix 1 demonstrates the proposal is consistent with:

- the Land Use Compatibility Criteria for Transport Corridor Advertising
- the Digital Sign Criteria
- the Bridge Signage Criteria
- Road Safety (refer Section 5.1)
- Luminance Levels for Digital Advertisements (refer Section 5.2)
- the Public Benefit Test (refer Section 5.5)

4.3.3 State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) identifies the environmental assessment category into which different types of infrastructure and services development fall. In addition, the ISEPP identifies those matters that are to be considered in the assessment of development that is adjacent to particular types of infrastructure, including development in and adjacent to road corridors.

Clause 101 of the ISEPP requires the consent authority to be satisfied that any new development with a frontage to a classified road would not compromise the operation and function of the road. The proposal comprises development with frontage to a classified road (Gore Hill Freeway – Main Road 651 [part]).

A Traffic Safety Assessment (TSA) has been prepared as part of the application and is included at Appendix 3. The TSA considers the ongoing operation and function of the Gore Hill Freeway in context to the development and concludes that the surrounding road environment presents a low risk environment for the proposed digital advertising sign. Road safety is further discussed at Section 5.1.

4.4 Willoughby Local Environmental Plan 2012

The *Willoughby Local Environmental Plan 2012* (WLEP) is the principal Environmental Planning Instrument applicable to the land.

4.4.1 Zoning

The railway overpass is located on land zoned SP2 Infrastructure – Railway Infrastructure under the *Willoughby Local Environmental Plan 2012* (WLEP 2012). Signage is permissible with consent in the SP2 zone under the WLEP 2012 as it is *ordinarily incidental or ancillary* to the railway corridor given it will generate revenue to maintain and improve Sydney Trains' infrastructure.

Additionally, as the proposed sign is on behalf of Sydney Trains and is within a railway corridor, it is also permissible with consent under clause 16 of SEPP 64.

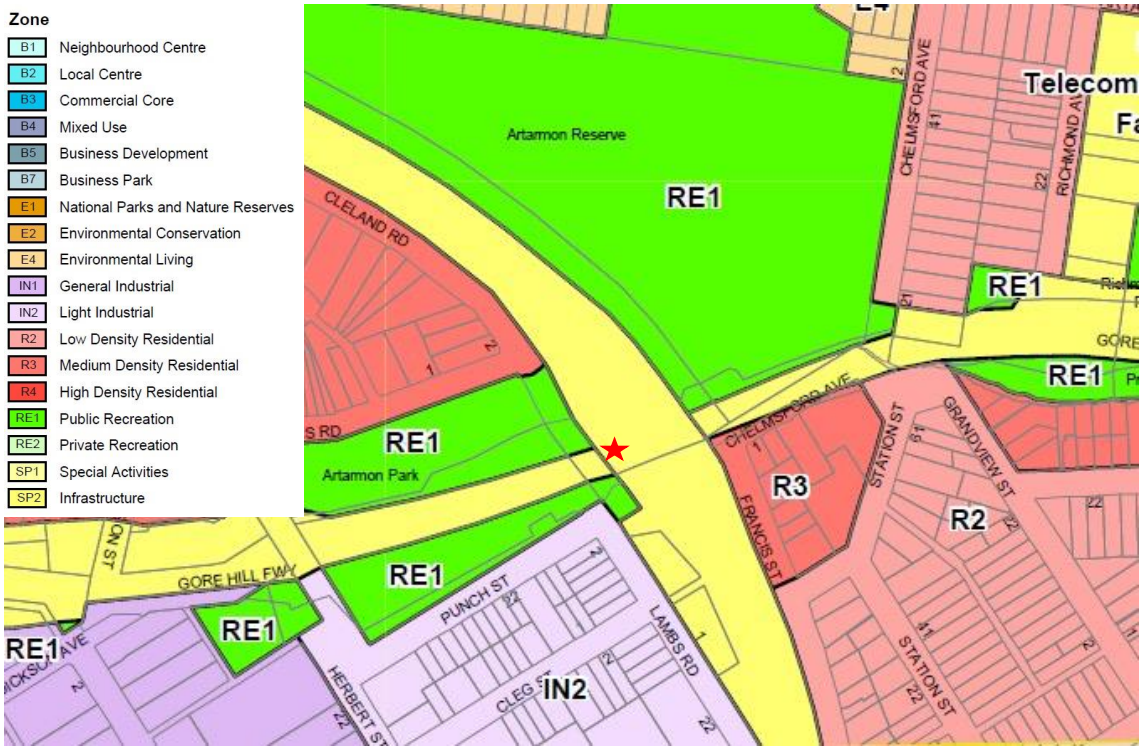

Figure 7: Land use zoning map (Source: WLEP 2012)

4.4.2 Heritage

The site is located just south of a heritage conservation area (HCA) as shown in the figure below. The HCA is identified as the Artarmon Conservation Area under Part 2 of Schedule 5 within the WLEP 2012.

Given the proposed orientation of the sign, it will not have any adverse impacts on the character or setting of the conservation area. The signage is not visible from the HCA, noting its westward orientation, and will therefore not result in any visual impacts.

Figure 8: Heritage map (Source: WLEP 2012)

4.4.3 Acid Sulfate Soils

The site is identified as Class 5 land on the WLEP 2012 Acid Sulfate Soils Map and, therefore, clause 6.1 applies.

The objective clause 6.1 is to ensure that development does not disturb, expose or drain acid sulfate soils and cause environmental damage.

The proposal does not involve any earthworks activities or the disturbance of soils. Consequently, the proposal will not disturb, expose or drain acid sulfate soils and/or cause environmental damage.

4.4.4 Signage

Clause 6.5 of the WLEP 2012 aims to ensure that any signage erected within the Willoughby LGA does not negatively impact on visual amenity and the safety of localities.

The proposal is largely compliant with Clause 6.5 as:

- the advertising signage is ancillary to the operation of the railway corridor
- the erection of advertising signage is permissible with consent under the land use table for the SP2 zone as it is *development that is ordinarily incidental or ancillary to development for that purpose*
- the sign will not have an adverse impact on the visual amenity or safety of the locality as outlined in this SEE and the attached TSA and Lighting Assessment (Appendices 3 and 4).

It is noted that Clause 6.5(2)(b) requires that signage satisfies one or more of the following:

i. the purpose for which the land or premises is used,
ii. the identification of a person residing or carrying on an occupation or business on the land or premises, including a description of the occupation or business,
iii. *the goods or services provided on the land or premises*

These provisions specifically relate to business or building identification signage. As advertising signage is proposed it is unable to meet this provision. Notwithstanding, as the proposed sign is on behalf of Sydney Trains and is within a railway corridor, it remains permissible with consent under clause 16 of SEPP 64. Furthermore, as SEPP 64 is the principal EPI, it prevails to the extent of any inconsistency with the WLEP 2012, in accordance with Clause 7.

4.5 Willoughby Development Control Plan 2006

The proposal is generally in compliance with the aims, objectives and key provisions of the DCP. In areas of non-compliance the proposal has been well justified as detailed in this SEE.

A detailed assessment of the proposal against the relevant provisions of the DCP is provided in the table below:

Provision	Comment	Complies
G.5 Advertisements and Advertising Structures		
G5.3 General Performance Requirements	The proposal will maintain adequate road safety as demonstrated in the Traffic Safety Assessment (TSA) provided at Appendix 3.	Yes
G5.4.6 Advertising in Recreation, Special Purpose and E1 & E2 Zones	The proposed sign will not adversely impact the visual amenity of the locality. This is demonstrated in the assessment of visual impacts at Section 5.3. The proposal's illumination will not result in any significant impacts on the amenity of adjoining land uses given the signage location is screened by vegetation to the north and south from all adjoining land uses.	Yes

Table 7: DCP Assessment

5 Environmental Planning Assessment

5.1 Road safety

A Traffic Safety Assessment (TSA) has been prepared by Bitzios Consulting (Appendix 3). The TSA considers the signage exposure and road accident history and has been prepared having considered the requirements for road safety set out in the SEPP 64 Guidelines.

5.1.1 Road environment

The existing road environment along the Gore Hill Freeway in proximity to the relative railway overpass is summarised in Table 15.

Existing Feature	Description
Road classification	• Gore Hill Freeway is a classified State road (Main Road 651).
Speed limit	• on approach to the overpass, the posted speed limit is 80 km/h.
Nearby intersections and traffic control devices	• no intersections, crossing, merge points or critical traffic control devices are located within the Stopping Sight Distance (SSD) of the sign. No intersections are located within the readable distance of the sign.
Road configuration and geometry	• dual carriageway predominantly comprising of three traffic lanes in both directions but transitions to two lanes as it connects to the Lane Cove Tunnel.
Crash data	• 6 reported crashes in a 5 year period from 2016 to 2020, including 3 rear end crashes (discussed further at Section 5.1.3). No crashes have occurred since 2019.
Pedestrian and cyclist infrastructure	• no pedestrian or cyclist infrastructure exists along Gore Hill Freeway in proximity to the relevant railway overpass.
Parking	• no stopping or car parking is permitted along Gore Hill Freeway.

Table 15: Existing road environment (Source: Bitzios Consulting)

5.1.2 Signage exposure

The TSA estimates that the sign as proposed on the western elevation of the railway overpass will be partially visible to eastbound motorists from approximately 320 metres west of the sign. The signage exposure distance and indicative views are shown in Figure 9 and Figure 10.

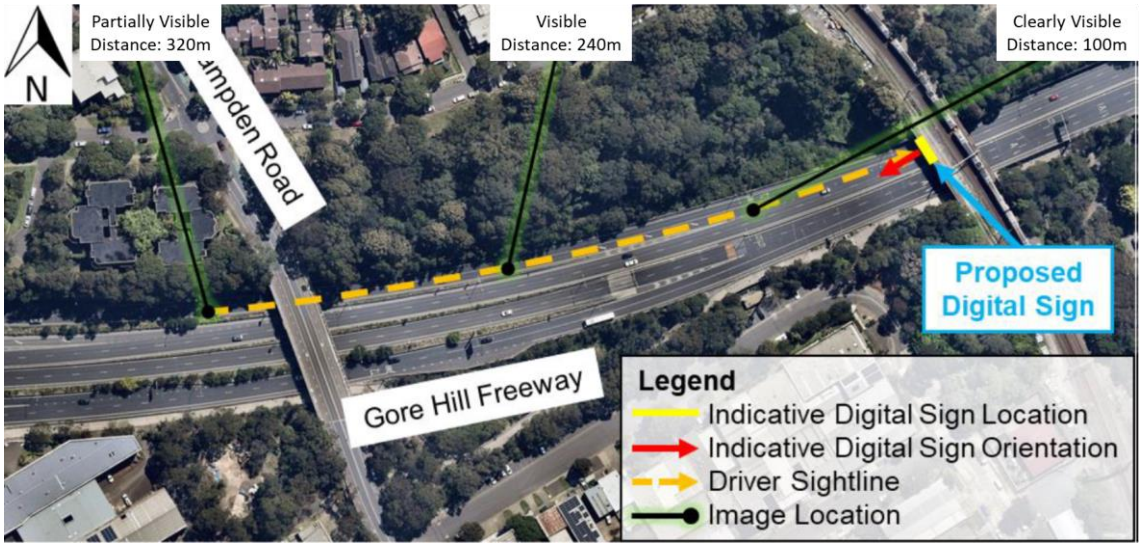

Figure 9: Signage exposure distance (Source: Bitzios Consulting)

Figure 10: Indicative view from approximately 240m – eastbound direction (Source: Bitzios Consulting)

5.1.3 Road accident history

A crash data investigation was undertaken by Bitzios Consulting for road accidents within the vicinity of the site over the past 5 years, from January 2016 to December 2020. The investigation found that there had been 6 reported crashes during this period, classified based on their severity. The classification of these crashes is presented in Table 8.

Year	Crash Severity				
	Fatal	Serious Injury	Moderate Injury	Minor/Other Injury	Non-casualty (towaway)
2016	-	-	-	-	-
2017	-	1	-	1	-
2018	-	-	-	1	2
2019	-	-	1	-	-
2020	-	-	-	-	-
Total	0	1	1	2	2

Table 8: Historical crash data in proximity to the site (Source: Bitzios Consulting)

As demonstrated by the above data, the crash rate within the vicinity of the site is relatively low with an average crash rate of 1 per year. With consideration of the traffic volumes that the Gore Hill Freeway carries, the resultant crashes are a low occurrence. Given the existing signage to the north of the site, the removal of that signage and installation of the proposed digital sign attached to the railway overpass is not anticipated to impact road safety.

5.1.4 Road safety criteria – SEPP 64 Guidelines

The TSA includes an assessment of the proposal against the criteria for road safety set out under Section 3 of the SEPP 64 Guidelines.

Responses provided in the TSA in respect to the Transport for NSW Advertising Sign Safety Assessment Matrix and the Transport Corridor Outdoor Advertising and Signage Guidelines Table 3 within the SEPP 64 Guidelines is outlined in Table 9 and Table 10, respectively.

Consideration	Response provided by Bitzios Consulting	Risk Level
a. It obscures a view of an object/vehicle/pedestrian that creates a hazard	*The proposed sign will be located above all surrounding objects/vehicles/pedestrians etc.*	*Low*
b. Sign positioning relative to travel direction	*The proposed sign will be positioned over the travel lanes on Gore Hill Freeway and would be in the ordinary field of view. It will be visually prominent eastbound.*	*Low*
c. It distracts a driver at a critical time	*The Pacific Highway eastbound on-ramp to the Gore Hill Freeway has two lanes: a 24-hour T2 Transit Lane and a general traffic lane. The T2 Lane continues as its own lane while the general traffic lane merges onto the Gore Hill Freeway approximately 70m from the proposed site. There are a number of signs (e.g. 'prepare to stop') on approach but all outside the visibility range of the sign. The only distraction risk of significance*	*Low*

Consideration	Response provided by Bitzios Consulting	Risk Level
	is drivers selecting a gap to merge by glancing to their right-side mirror/blind spot and then forward again and any distractions the digital sign might cause to that. This is not a negligible risk but given that the crash rates in this area are very low, the resulting change in risk is also expected to be low.	
d. It interferes with the effectiveness and safety of a traffic control device (e.g. traffic signs, traffic signals or other traffic control devices)	*The proposed sign is unlikely to noticeably obstruct or directly interfere with any traffic control devices.*	*Low*
e. Sign Clutter	*No other advertising sign is visible when a driver is in view of the subject sign.*	*Low*

Table 9: Response to Transport for NSW Advertising Sign Safety Assessment Matrix (Source: Bitzios Consulting)

Criteria	Response provided by Bitzios Consulting
a. Each advertisement must be displayed in a completely static manner, without any motion, for the approved dwell time as per criterion (d) below.	*Conditions can be imposed by the consent authority to ensure that the sign is completely static for the specified dwell time.*
b. Message sequencing designed to make a driver anticipate the next message is prohibited across images presented on a single sign and across a series of signs.	*Conditions can be imposed by the consent authority to ensure there is no message sequencing that creates driver anticipation for the next message on the proposed sign or with any other signs.*
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* *ii. as text providing driving instructions to drivers.*	*Conditions can be imposed by the consent authority to ensure that sign content, design, imagery and messages neither replicate nor can be mistaken for a prescribed traffic control device or instruction to drivers. For example, advertisements must not instruct drivers to perform an action such as 'Stop'.*
d. 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.*	*The minimum allowed dwell time is 25 seconds based on the posted speed limit of 80km/h. Conditions can be imposed by the consent authority to ensure this minimum dwell time.*
e. 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.	*Conditions can be imposed by the consent authority to ensure that the sign has a transition time of no more than 0.1 seconds and a black screen in the event of image failure.*
f. Luminance levels must comply with the requirements in Section 3 below.	*This area is Zone 3 as categorised in Section 3.3 of the Signage Guidelines. Acceptable luminance levels for this zone as specified in Table 6 of the*

Criteria	Response provided by Bitzios Consulting
	Signage Guidelines are: no limit (full sun on face of signage), 6000cd/m² (daytime), 700cd/m² (twilight and inclement weather) and 350cd/m² (night-time). Conditions can be imposed by the consent authority specifying maximum allowable luminance levels.
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.	*Conditions can be imposed by the consent authority to ensure that the sign's images comply with requirements to not contain flickering or flashing content.*
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).	*Conditions can be imposed by the consent authority to ensure that minimal text and information is supplied on a sign no more than a driver can read at a short glance.*
i. Any sign that is within 250m of a classified road and is visible from a school zone must be switched to a fixed display during school zone hours.	*N/A – The sign is not visible from 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 sign being visible from each direction, both directions for each location must be assessed on their own merits.	*All relevant traffic directions have been 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 TfNSW as part of their concurrence role.	*The proposed digital sign replaces an existing static sign and no other sign is visible less than 150m.*
m. Signs greater than or equal to 20sqm must obtain TfNSW 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*	*The proposed sign will be greater than 20sqm and as such must obtain TfNSW concurrence, however it will be located on the roadside.*

Criteria	Response provided by Bitzios Consulting
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.*	
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 TfNSW to allow a review of the sign's activity in case of a complaint.*	*Conditions can be imposed by the consent authority to ensure that an electronic log is kept for the duration of the consent and be available to the consent authority and/or TfNSW for review in case of a complaint.*
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 TfNSW 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 TfNSW accredited road safety auditor who did not contribute to the original application documentation. A copy of the report is to be provided to TfNSW 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 TfNSW, the report is to be provided to the Department of Planning and Environment as well.*	*Conditions can be imposed by the consent authority for a road safety check to be carried out after 12 months but within 18 months of the sign's installation.*

Table 10: Assessment against the Transport Corridor Outdoor Advertising and Signage Guidelines Table 3 (Source: Bitzios Consulting)

5.1.5 Road safety summary

Road safety impacts have been comprehensively assessed as part of the application in accordance with the requirements of SEPP 64 and the road safety criteria set out in the SEPP 64 Guidelines.

The SSA has determined there is a low risk environment for the proposed digital advertising sign. The proposed sign will be visible from approximately 320 metres to the west of the overpass and will be positioned above the traffic lanes, therefore not requiring drivers to turn away from their direct line-of-sight to view the full extent of the sign.

Further, the proposed minimum dwell time of 25 seconds is suitable as drivers would be viewing the sign while travelling 80km/hour or less.

In summary, based on the findings of Bitzios Consulting in its TSA, the road environment along Gore Hill Freeway in proximity to the Gore Hill Freeway overpass is considered to present a low risk environment for the proposed digital advertising signage conversion and is acceptable on road safety grounds.

5.2 Illumination

The proposed sign will be illuminated using LEDs installed within the front face on a 24 hour, 7 days per week basis. The brightness of the LEDs shall be controlled to provide upper and lower thresholds (as required) and will include a light sensor to automatically adjust the brightness of the display area to adjust to ambient lighting conditions.

A Lighting Impact Assessment (LIA) has been prepared by Electrolight (Appendix 4). The LIA has assessed the proposal against the illumination criteria under:

- SEPP 64
- the SEPP 64 Guidelines
- AS 4282-2019 Control of the Obtrusive Effects of Outdoor Lighting.

5.2.1 Illumination criteria – SEPP 64 Guidelines

Section 3.3.3 of the SEPP 64 Guidelines sets out the illumination criteria for digital signs. The LIA has categorised the site as being within Zone 3 of the SEPP 64 Guidelines, which is described as areas with generally low levels of off street ambient lighting, or areas that have residential properties nearby

The luminance levels for digital advertisements that are within a Zone 3 environment, as outlined in the SEPP 64 Guidelines, are shown in Table 11.

Lighting Condition	Max Permissible Luminance for Zone 3 (cd/sqm)	Complies
Full sun on face of signage	No limit	Yes
Daytime luminance	6000	Yes
Morning and evening twilight and inclement weather	700	Yes
Night time	350	Yes

Table 11: Luminance levels for digital advertisements criteria – SEPP 64 Guidelines

The LIA confirms that the sign at maximum luminance, will be visually consistent with the existing ambient lighting and is therefore suitable for the local area. It is noted that the maximum luminance limit during the night time period will not exceed the recommended maximum permissible luminance level set out in the SEPP 64 Guidelines of 350 cd/sqm for Zone 3.

5.2.2 AS 4282-2019 Control of the Obtrusive Effects of Outdoor Lighting

The Control of the Obtrusive Effects of Outdoor Lighting (AS 4282-2019) sets out limits for different obtrusive factors associated with the night time operation of outdoor lighting systems. The LIA has undertaken an assessment of the sign during the 'post-curfew' period (11 pm to 6 am), which is considered the most obtrusive night time period and generally when residents are trying to sleep.

The LIA has categorised the nearest residential properties as all being within Environmental Zone A3 of AS 4282-2019, which is described as having medium district brightness (e.g. suburban areas in towns and cities). Lighting impacts on the 2 nearest residential dwellings with potential views to the sign are assessed. The location of the nearest dwellings is shown in Figure 11 below

Figure 11: Location of assessed residential properties (Source: Electrolight)

The maximum lighting limits for Environmental Zone A3 during the pre-curfew and post-curfew periods, as set out in AS 4282-2019, is shown in Table 12.

Environmental Zone	Maximum vertical illuminance (lux)		Complies
	Pre-curfew	Post-curfew	
A3	10	2	Yes

Table 12: Maximum lighting limit (post-curfew)

The LIA undertook a lighting model which found the maximum illuminance during night time operation is 0 lux to dwellings within zone A3 which is compliant with the limit of 2 lux outlined above. Consequently, the sign demonstrates an acceptable level of compliance with the maximum night time illumination criteria specified under AS 4282-2019.

It should be noted that some of the houses are shielded by mature vegetation which effectively obstructs the spill light of the signage. However, calculations were undertaken assuming there was no vegetation present as outlined in AS4282.

5.2.3 Illumination summary

The LIA recommends the Applicant ensure that the average luminance difference between successive images do not exceed 30% to ensure compliance with AS 4282-2019 and for the dwell time to be at least 10 seconds or greater. The LIA states the implementation of baffles as proposed will mitigate any other upward light to ensure compliance with AS 4282-2019. The Applicant has committed to these recommendations.

In summary, the LIA determines that the sign:

- is found to be compliant with the criteria set out in AS 4282-2019 and the SEPP 64 Guidelines
- will not result in unacceptable glare or adversely impact the safety of pedestrians, residents or vehicular traffic
- will not unreasonably impact on the visual amenity of nearby residences or accommodation.

5.3 Visual Impacts

The proposal involves the installation of a digital advertising sign on the western elevation of the railway overpass above Gore Hill Freeway.

The Gore Hill Freeway is well screened from any adjoining development to the north and south. The area south of the Freeway is characterised by general and light industrial uses, primarily operating out of warehouse style development. The area to the north of the Freeway is screened by Artarmon Park. Beyond the park, a medium density residential area is located characterised by townhouse development and attached dwellings.

View impacts from nearby residential properties

Given the screening provided by Artarmon Park and other dense vegetation adjacent to the Freeway, the medium density residential area to the north does not have direct sightlines to the Gore Hill Freeway overpass.

As shown in Figure 12 below, the overpass cannot be seen from the closest residential receivers as a result of dense vegetation acting as an interface between the residential area and freeway.

Figure 13 shows the location of the photo taken.

Figure 12: Photo taken from nearby residential development to the north (Source: Keylan)

Figure 13: Map showing location of photo in Figure 12 (Base source: Nearmap)

Visual impact summary

The proposed digital sign to be attached on the Gore Hill Freeway overpass and removal of the existing static advertising sign to the north of the overpass will not result in any additional visual impacts. The proposed digital sign will have negligible impacts in comparison to those existing from the current static advertising sign to the north of the Gore Hill Freeway overpass.

Following a detailed analysis of the proposal and the surrounding locality, this VIA has found the following:

- the surrounding area has low visual sensitivity due to the dense screening provided to the Freeway by existing vegetation
- the removal of the existing sign and proposed new sign results in less driver distraction as it is now located above the road carriageway, rather than to the side
- the proposal does not result in any additional impacts upon scenic views or protrude above the dominant skyline
- the proposal will reduce visual impacts overall due to its higher quality and integration into the railway overpass rather than sited within dense vegetation which requires additional upkeep
- the proposal is considered appropriate for its setting, as it is located within an established transport corridor

Following consideration of the above, the proposal is considered to result in acceptable visual impacts and will improve the visual appearance of the Gore Hill Freeway overpass.

5.4 Site suitability

The site is a suitable location for the provision of digital advertising signage on the basis that:

- the proposal is compatible with the existing and desired future character of the area, noting that the advertising sign is proposed on a rail corridor
- there will be no impact on any significant European or Aboriginal cultural heritage items or heritage conservation zones
- there will be minimal visual impacts on sensitive land uses as the proposed signage is well screened by existing vegetation
- detailed investigations of the road network have determined that the development will not impact on the continued and safe operation of Gore Hill Freeway in its function as a classified road
- the illumination of the sign will not result in unacceptable glare or adversely lead to an unacceptable impact on the visual amenity of surrounding residences or heritage items
- the development fully complies with the relevant statutory and policy provisions that govern outdoor advertising signage and LED technology in NSW

Further to the above, the site is an effective location for outdoor advertising that will generate revenue to the benefit of the local community. The public benefits of the proposal are discussed in further detail at Section 5.5.

5.5 Public benefit

In accordance with the SEPP 64 Guidelines, an application for digital advertising that is proposed by Sydney Trains is to demonstrate how the local community will benefit from the proposal, such as railway station upgrades, rail crossings or amenity improvements along rail corridors including landscaping, litter removal or vandalism and graffiti management.

A Public Benefit Statement prepared by Sydney Trains is included as part of the application (Appendix 5). The statement confirms that part of the revenue generated by the proposed advertising sign will help fund essential Sydney Trains services to the benefit of the local community, including:

- improvements and maintenance programs
- ensuring the continued provision of clean, frequent, and reliable services for customers
- supporting the next generation of transport solutions online
- provision of emergency messaging and announcements to the public such as during:
    - station emergency situations
    - any major disruption which is likely to cause delays to train running times
    - Sydney Trains and TfNSW promotions and events
    - threat-to-life alerts by NSW Government Emergency and Police Agencies

Additionally, the proposed new digital advertising signage will provide public benefit through availability to be used for an emergency or community message. The emergency messaging system will be available to Sydney Trains and other NSW Government agencies such as NSW Police, NSW Health and Transport for NSW.

Accordingly, the application addresses the public benefit test outlined in the SEPP 64 Guidelines through the provision of funding toward improvements to the Sydney Trains network and direct messaging to the community.

6 Conclusion

This SEE supports a DA for the installation of a new digital advertising sign on the western elevation of the railway overpass on the Gore Hill Freeway in Artarmon.

The sign will be visible to motorists travelling southbound along the Gore Hill Freeway. The sign is proposed to comprise an advertising display area of approximately 46.99m^2 and a visual screen size of 39.94m^2. The proposed visual screen area represents a 6% decrease when compared to the existing sign to the north of the site, which is to be removed.

Following a detailed consideration of the proposal in its legislative and physical context, this SEE determines that the proposal:

- meets the objectives of SEPP 64 as it is compatible with the amenity and visual character of the surrounding area
- demonstrates compliance with the assessment criteria set in Schedule 1 of the SEPP 64
- demonstrates compliance with the criteria set out in the SEPP 64 Guidelines in regard to land use compatibility, digital signage, road safety and illumination requirements and the public benefit test
- relocates the existing sign to a more suitable location within the existing bridge structure
- reduces the visual screen area of the existing sign by 6%
- will not impact on any items of European or Aboriginal heritage
- will be of high quality design and finish and will provide visual interest for motorists using the Gore Hill Freeway
- will be in the public interest as the revenue that is generated by the advertising signage will be used by Sydney Trains to improve the network through projects such as railway station upgrades, rail crossings or amenity improvements along rail corridors including landscaping, litter removal or vandalism and graffiti management

In consideration of the above, it is considered that the digital advertising sign will not have an adverse impact on the environment or on the safety of road users and therefore warrants approval.

Appendix 1

SEPP 64 & Transport Corridor Advertising and Signage Guidelines Assessment

Appendix 2

Architectural Drawings

KEYLAN
consulting pty ltd

Appendix 3

Traffic Safety Assessment

Appendix 4

Lighting Impact Assessment

KEYLAN consulting pty ltd

Appendix 5

Public Benefit Statement