NSW GOVERNMENT

Transport for NSW

Riverwood Commuter Car Park

Determination Report

Artist's impression of the proposed Riverwood Commuter Car Park, subject to change during detailed design

September 2021

Riverwood Commuter Car Park – Determination Report

Commuter Car Park Program

Ref – 6618188

Contents

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Glossary and abbreviations

Term	Meaning
CBD	Central Business District
CEMP	Construction Environmental Management Plan
CLMP	Community Liaison Management Plan
Construction Contractor	The Construction Contractor for the Proposed Activity would be appointed by TfNSW to undertake the detailed design and construction of the Proposed Activity.
CPTED	Crime Prevention Through Environmental Design
DDA	*Disability Discrimination Act 1992* (Cwlth)
Detailed design	Detailed design broadly refers to the process that the Construction Contractor undertakes (should the Proposed Activity proceed) to refine the concept design to a design suitable for construction (subject to TfNSW acceptance).
Determination Report	This document – a report prepared by TfNSW to assess and address certain matters to allow for a determination of the Proposed Activity under, and in accordance with Division 5.1 of the EP&A Act.
DSAPT	*Disability Standards for Accessible Public Transport (2002)*
EIS	Environmental Impact Statement
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW)
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000* (NSW)
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cwlth)
FIA	Flood impact assessment
First mile / last mile	The first and final stage of a journey in which people or goods travel to a broad range of origins or destinations
Infrastructure SEPP	*State Environmental Planning Policy (Infrastructure) 2007* (NSW)
LEP	Local Environmental Plan
LGA	Local Government Area
NES	Matters of 'National Environmental Significance' under the EPBC Act
NSW	New South Wales
Proponent	A person or body proposing to carry out an activity under Division 5.1 of the EP&A Act – in this instance, TfNSW.
Proposed Activity	The construction and operation of the Riverwood Commuter Car Park
REF	Review of Environmental Factors
TfNSW	Transport for NSW (the Proponent)

Executive summary

Overview of Proposed Activity

Transport for NSW (TfNSW) recognises the critical role commuter car parks play in improving the quality of access to public transport in the customer's first and last mile, particularly in middle and outer metropolitan areas. TfNSW is committed to delivering accessible public transport infrastructure, which is why TfNSW is providing more commuter car parks through the Commuter Car Park Program. The Commuter Car Park Program is a NSW Government initiative to provide a better experience for public transport customers by delivering accessible, modern, secure and integrated transport infrastructure.

The delivery of commuter car parks at key transport interchanges will provide a range of benefits, including:

- improved customer access to the public transport network
- encouraging mode shift away from private vehicles
- improving the flexibility and reliability of customer's 'first and last mile' of their journey
- contributing to reducing congestion on our road network.

The Proposed Activity would include the following key elements:

- removal of the existing at-grade car park and demolition of existing structures
- construction and operation of a multi-storey car park comprised of a ground level plus two additional levels (including rooftop) of commuter car park, which would include:
    - up to 140 commuter car parking spaces
    - a minimum of three accessible parking spaces
    - access to each level of the car park via one lift and two stair wells
    - internal vehicle circulation ramps connecting each level of the car park
    - provision for future electric vehicle charging stations (at least 15 per cent of car spaces)
    - Transport Park&Ride infrastructure (Opal card operated boom gates)
- vehicle access and egress direct from Webb Street
- separation of vehicles access points and pedestrian access paths to the car park
- installation of rooftop solar panels
- ancillary works including services diversion and/or relocation, drainage works, an on-site storage detention tank, landscaping and potential installation of rainwater tanks (subject to detailed design)
- installation of closed-circuit television (CCTV), lighting and wayfinding signage for safety and security.

TfNSW, as the Proponent for the Proposed Activity, has undertaken a Review of Environmental Factors (REF) that details the scope of works and environmental impacts associated with the Proposed Activity. The REF was prepared by WSP on behalf of TfNSW in accordance with the requirements of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and clause 228 of the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation).

No modifications have been made to the Proposed Activity since the REF was prepared, however modifications may be considered during the detailed design phase. Should design modifications be identified as a result of the detailed design process, these modifications would be assessed to determine consistency with the Proposed Activity (as approved), including significance of impact on the environment. Additional mitigation measures and/or assessment and consultation would be undertaken where necessary.

Public display of the REF

The Riverwood Commuter Car Park REF was placed on public display from 16 July 2021 to 30 July 2021. It was available for comment on the TfNSW corporate website[1] and a community notification and signage onsite was used to create awareness of the Proposed Activity and seek community feedback.

A total of 80 community submissions were received via letter, email, telephone and online submissions during the exhibition period. A submission was also received from Georges River Council as part of the display process.

The key issues raised in submissions related to the following general topics:

- property acquisitions including the timing of acquisitions and overall consultation process (50 submissions)
- the location of the Proposed Activity and consideration of alternative options (29 submissions)
- existing and future traffic congestion as a result of the Proposed Activity (23 submissions)
- design considerations (8 submissions).

Responses to these submissions are detailed in Section 2.3 of this Determination Report.

Purpose of this report

The purpose of this Determination Report is for TfNSW, as the Proponent of the Riverwood Commuter Car Park, to comply with its obligations under Division 5.1 of the EP&A Act and determine whether or not to proceed with the carrying out of the Proposed Activity. TfNSW must make a determination in accordance with the provisions of Division 5.1 of the EP&A Act.

This report also presents a summary of the submissions provided during the public display of the REF, and TfNSW's response to the issues and comments raised in these submissions.

Conclusion

Based on the assessments in the REF and consideration of the submissions received during the public display of the REF, it is recommended that the Proposed Activity be approved, subject to the mitigation measures included in the REF and the proposed Conditions of Approval (refer Appendix B). TfNSW will continue to liaise with the community and other stakeholders as the Proposed Activity progresses through detailed design and into the construction phase.

[1] https://www.transport.nsw.gov.au/projects/current-projects/riverwood-commuter-car-park

1. Introduction

1.1. Background

TfNSW recognises the critical role commuter car parks play in improving the quality of access to public transport in the first and last mile of customer journeys, particularly in middle and outer metropolitan areas. TfNSW is committed to delivering accessible public transport infrastructure, which is why TfNSW is providing more commuter car parks through the Commuter Car Park Program. The Commuter Car Park Program is a NSW Government initiative to provide a better experience for public transport customers by delivering accessible, modern, secure and integrated transport infrastructure.

The delivery of commuter car parks at key transport interchanges will provide a range of benefits, including:

- improved customer access to the public transport network
- encouraging mode shift away from private vehicles
- improving the flexibility and reliability of customer's 'first and last mile' of their journey
- contributing to reducing congestion on our road network.

Approximately 73 per cent of workers from the middle and outer urban sectors of Greater Sydney predominantly drive the whole distance to work, with around 46 per cent of those workers commuting 20 kilometres to 60 kilometres daily (Australian Bureau of Statistics, 2016).

Demand for parking at Riverwood Station was modelled with consideration to the current and future public transport network, future land use (including population, workforce and employment), population growth and known travel patterns. Inputs to modelling also included on-street parking availability and surveys of similar car parks. Modelling concluded a shortfall in commuter car parking in Riverwood in both 2026 and 2036 if more commuter car parking is not provided.

TfNSW is the Proponent for the Riverwood Commuter Car Park (referred to as the 'Proposed Activity' for the purposes of this document). Also refer to Section 1.4 for a description of the Proposed Activity.

The Proposed Activity is designed to drive a stronger customer experience outcome, to deliver improved travel to and between modes, encourage greater public transport use and better integrate interchanges with the role and function of town centres. The Proposed Activity would also assist in responding to growth forecast in the region and as such would support growth in commercial and residential development.

1.2. Review of Environmental Factors

A Review of Environmental Factors (REF) has been prepared by WSP on behalf of TfNSW in accordance with Sections 5.5 and 5.7 of the *Environmental Planning and Assessment 1979* (EP&A Act), and clause 228 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), to ensure that TfNSW takes into account to the fullest extent possible, all matters affecting or likely to affect the environment as a result of the Proposed Activity. The REF is included at Appendix A.

The Riverwood Commuter Car Park REF was placed on public display from 16 July 2021 to 30 July 2021, with 80 submissions received. Issues raised in these submissions are addressed in Section 2.3 of this report.

1.3. Determination Report

Prior to proceeding with the Proposed Activity, TfNSW must make a determination in accordance with Division 5.1 of the EP&A Act (refer Figure 1).

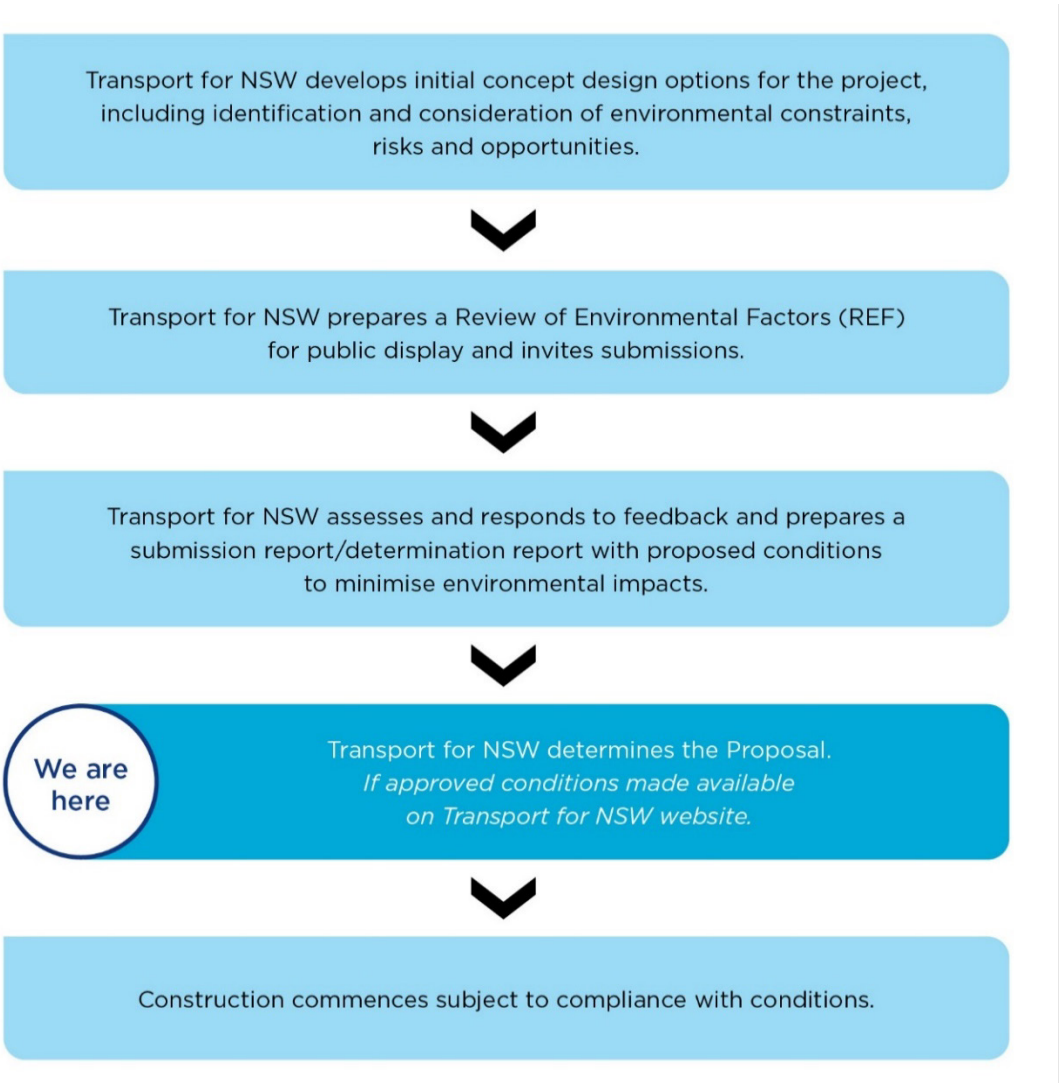

Figure 1 Planning approval process

The purpose of this Determination Report is to address the following to allow for a determination of the Proposed Activity:

- present a summary of the submissions received during the public display of the REF and TfNSW's response to the issues and comments raised in these submissions
- assess the environmental impacts with respect to the Proposed Activity, which are detailed in the environmental impact assessment (and any proposed modifications, as detailed and assessed in this Determination Report)
- identify mitigation measures to minimise potential environmental impacts
- determine whether potential environmental impacts are likely to be significant
- address whether the provisions of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) apply to the Proposed Activity.

This report has been prepared having regard to, among other things, the objectives of TfNSW under the *Transport Administration Act 1988*:

a) to provide an efficient and accountable framework for the governance of the delivery of transport services

b) to promote the integration of the transport system

c) to enable effective planning and delivery of transport infrastructure and services

d) to facilitate the mobilisation and prioritisation of key resources across the transport sector

e) to co-ordinate the activities of those engaged in the delivery of transport services

f) to maintain independent regulatory arrangements for securing the safety of transport services.

1.4. Description of the Proposed Activity in the REF

The Proposed Activity is in the suburb of Riverwood, in the Georges River Local Government Area (LGA), about 16 kilometres south west of Sydney's central business district.

The Proposed Activity is located about 220 metres to the south west of Riverwood Station on Webb Street. Riverwood Station is on the Airport and South Line and is serviced by T8 Line services. The Proposed Activity is also located immediately to the west of the Riverwood Plaza, around 130 metres from the main commercial centre of the suburb of Riverwood, and at the transition of the commercial and residential areas to the south.

The Proposed Activity is designed to drive a stronger customer experience outcome, to deliver improved travel to and between modes, encourage greater public transport use and better integrate interchanges with the role and function of town centres. The Proposed Activity would also assist in responding to growth forecast in the region and as such would support growth in commercial and residential development.

The Proposed Activity fulfils the program objectives by proposing to provide:

- improved customer access to the public transport network
- mode shift away from private vehicles
- reduced congestion on our road network.

A detailed description of the Proposed Activity is provided in Chapter 3 of the Riverwood Commuter Car Park REF (Transport for NSW, July 2021), and would provide:

- removal of the existing at-grade car park and demolition of existing structures
- construction and operation of a multi-storey car park comprised of a ground level plus two additional levels (including rooftop) of commuter car park, which would include:
    - up to 140 commuter car parking spaces
    - a minimum of three accessible parking spaces
    - access to each level of the car park via one lift and two stair wells
    - internal vehicle circulation ramps connecting each level of the car park
    - provision for future electric vehicle charging stations (at least 15 per cent of car spaces)
    - Transport Park&Ride infrastructure (Opal card operated boom gates)

- vehicle access and egress direct from Webb Street
- separation of vehicles access points and pedestrian access paths to the car park
- installation of rooftop solar panels
- ancillary works including services diversion and/or relocation, drainage works, an on-site storage detention tank, landscaping and potential installation of rainwater tanks (subject to detailed design)
- installation of closed-circuit television (CCTV), lighting and wayfinding signage for safety and security.

A schematic outlining the key features of the Proposed Activity is provided in Figure 2.

The need for, and benefits of, the Proposed Activity are outlined in Chapter 2 of the REF.

Subject to planning approval, construction is expected to commence in mid-2022 and be opened to customers around early 2023.

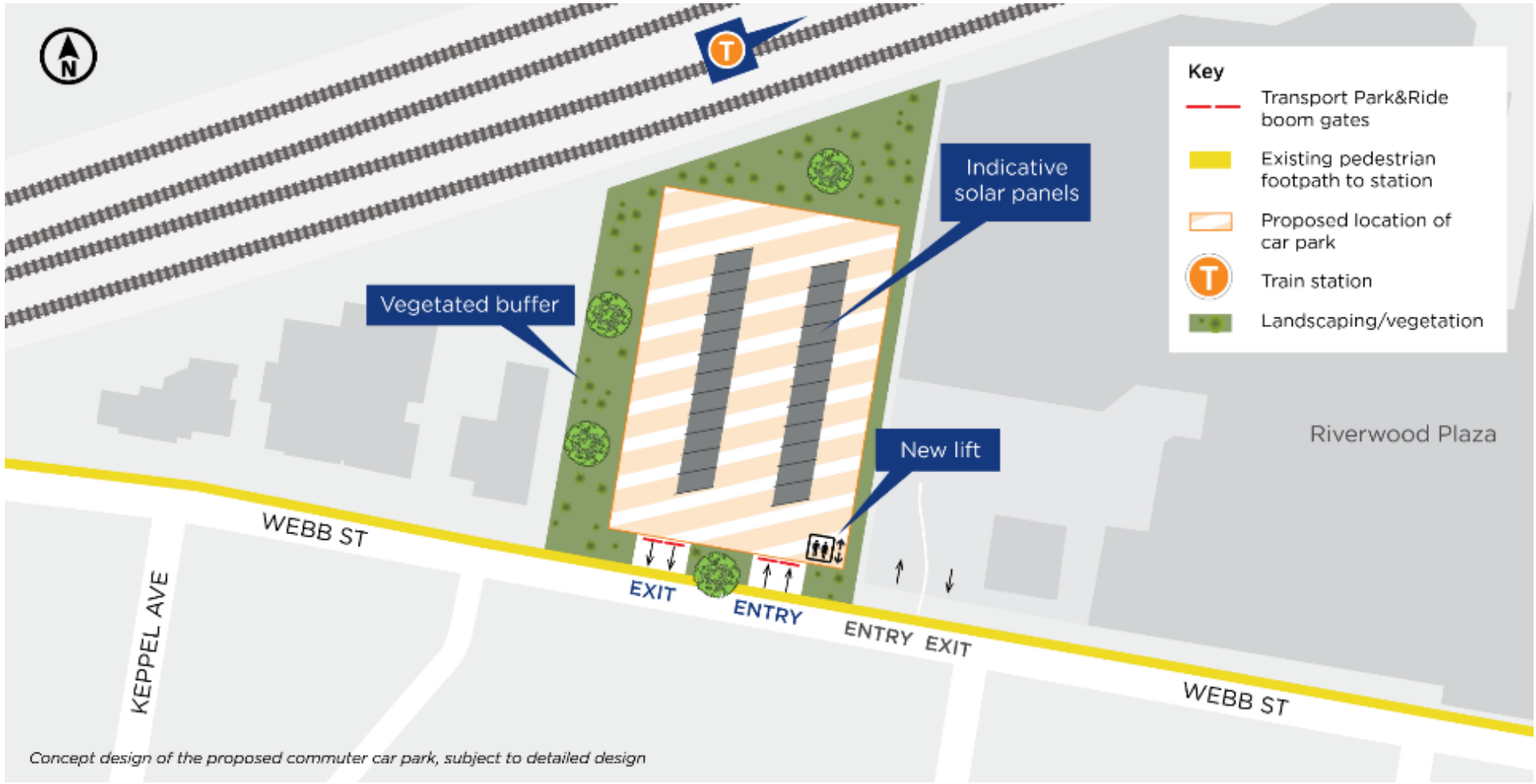

Figure 2 Key features of the Proposed Activity (indicative only, subject to detailed design)

2. Consultation and assessment of submissions

2.1. REF public display

Due to ongoing COVID-19 restrictions, public display of the Riverwood Commuter Car Park REF was restricted to online locations only. There were no physical display locations or public face-to-face sessions.

The Riverwood Commuter Car Park REF was placed on public display from 16 July 2021 to 30 July 2021 on the TfNSW corporate website[2].

Community consultation activities undertaken for the public display included:

- installation of signage around the station informing commuters of the Proposed Activity, contact information to provide feedback and a QR code taking customers to the project webpage
- a dedicated project webpage on the TfNSW website that includes a summary of the Proposed Activity and information on how to provide feedback
- public display of the REF on the project webpage
- distribution of a project update to local community, outlining the Proposed Activity and inviting feedback on the REF
- a geographically targeted social media post to Riverwood and surrounding suburbs to inform social media users of the Proposed Activity and link to view the plans
- consultation with Georges River Council, Sydney Trains, and other non-community stakeholders
- a briefing to Georges River Council officers on 2 August 2021
- a letter outlining the scope of the Proposed Activity, information on where to view the REF and specialist studies on the TfNSW website, along with details of how to make a submission was sent to Georges River Council as per the consultation requirements under clause 13 and 15 of the *State Environmental Planning Policy (Infrastructure) 2007* (Infrastructure SEPP)
- a letter outlining the scope of the Proposed Activity, information on where to view the REF and specialist studies on the TfNSW website, along with details of how to make a submission was sent to the NSW State Emergency Service as per the consultation requirements under clause 15AA of the Infrastructure SEPP.

2.2. REF submissions

A total of 80 submissions were received via letter, email, telephone and online submissions including comments posted on the project website. Community submissions are addressed in Table 1, while the submissions received from Georges River Council and the State Emergency Service are addressed in Table 2 and Table 3 respectively. Submissions included feedback on a range of issues in relation to the Proposed Activity.

The key issues raised in the community submissions were:

- property acquisitions including the timing of acquisitions and overall consultation process (50 submissions)
- the location of the Proposed Activity and consideration of alternative options (29 submissions)

[2] https://www.transport.nsw.gov.au/projects/current-projects/riverwood-commuter-car-park

- existing and future traffic congestion as a result of the Proposed Activity (23 submissions)
- design considerations (8 submissions).

A summary of the number of times each issue raised by the community was raised in the submissions is shown in Figure 3.

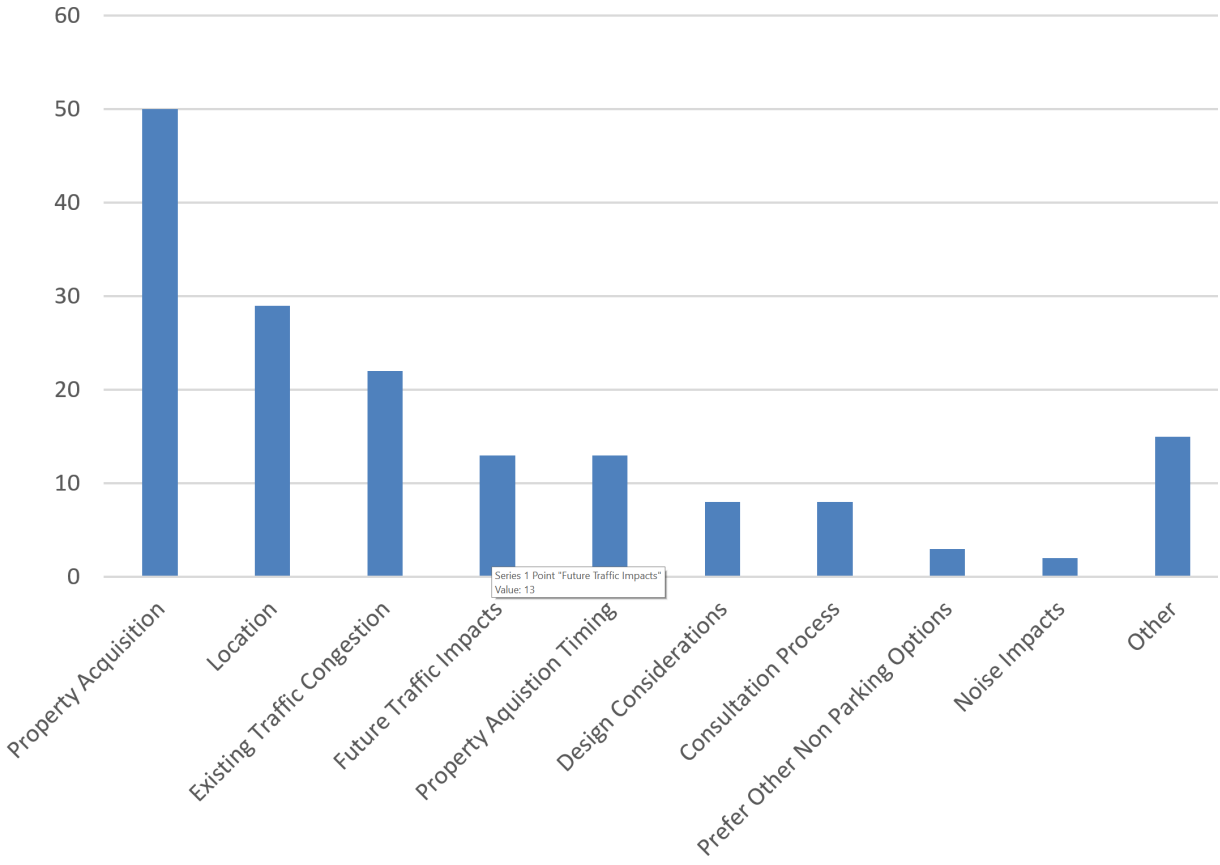

Figure 3 Breakdown of community submissions by issue raised

The responses to the submissions received from Georges River Council and the State Emergency Service were not grouped into key issues, rather each separate issue for these responses were responded to individually.

2.3. Consideration and response to submissions

Community submissions

Table 1 Response to community submissions received

No.	Submission no.	Issue(s) raised	TfNSW response
1	**General**		
1.1	R13, R15, R21, R22, R55, R63	Six submissions noted support for the Proposed Activity and additional parking spaces.	Support for the Proposed Activity is noted.
2	**Property Acquisition**		
2.1	R3, R5, R7, R8, R9, R10, R11, R18, R19, R23, R24, R25, R26, R27, R28, R29, R30, R32, R33, R35, R39, R40, R41, R44, R45, R47, R48, R49, R50, R51, R52, R53, R54, R56, R58, R59, R60, R61, R62, R64, R66, R67, R68, R70, R71, R73, R75, R76, R78, R79	Fifty submissions raised concerns over the proposed acquisition of three existing residential properties to accommodate the Proposed Activity, and the resultant need to remove the existing residents from these properties.	The aim of the Proposed Activity is to provide additional parking spaces in the vicinity of Riverwood Station to help cater for current and future commuter demand. A series of alternative site location options were investigated and considered during the initial phases of the Proposed Activity and assessed against a range of criteria. Criteria such as distance from Riverwood Station, alignment to the Program objectives and environmental and social impacts were considered during the development of the Proposed Activity. In addition to a 'do nothing' scenario, consideration of options to both the north and south of Webb Street were considered. The options assessment process concluded that the selected site would result in reduced impacts to property (including the need to acquire properties), stakeholders and the community compared to the alternative locations considered. In addition, the proposed site would meet the stated objectives of the Proposed Activity by providing customers with convenient commuter parking within walking distance to the station and provide sufficient spaces to meet forecast demand. Further detail of the options assessment process and outcomes is provided in Section 2.4 of the REF. With respect to the acquisition of these properties, TfNSW is currently following the formal process used by the NSW Government to acquire property for infrastructure projects. As part of this process, TfNSW has been in consultation with the owners and occupiers since February 2021 and is continuing to discuss and negotiate the acquisition with the owners and occupiers of properties, or their representatives.

No.	Submission no.	Issue(s) raised	TfNSW response
2.2	R25, R27, R28, R29, R30, R45, R59, R60, R64, R67, R71, R73, R78	Thirteen submissions raised concerns regarding the timing of property acquisition. Specifically, the submissions highlighted the intention to acquire the properties during COVID-19 and the difficulty of purchasing an alternative house in the current Sydney property market.	TfNSW is currently following the formal process used by the NSW Government to acquire property for infrastructure projects. TfNSW acknowledges the impact of property acquisition on the effected residents and continues to make genuine attempts to reach agreement with owners and occupiers regarding these impacts. In the event that an agreement cannot be reached, the Valuer-General can approve compulsory acquisition and will determine the amount of compensation owing to owners and occupiers. Directly impacted property owners and occupiers were initially contacted by TfNSW staff in February 2021. TfNSW provided all owners and occupiers with a Personal Manager to support and guide them through the acquisition process. TfNSW will continue to provide assistance to these residents throughout the future stages of the acquisition process. The Proposed Activity is designed to drive a stronger customer experience outcome and to deliver improved travel to and between modes and to encourage greater public transport use. The Proposed Activity would also assist in responding to growth forecast in the region and as such would support growth in commercial and residential development. An objective of the Commuter Car Park Program is to ensure that this anticipated growth is met, including throughout the current COVID-19 period.
3	**Transport and Traffic**		
3.1	R1, R7, R11, R12, R16, R17, R19, R20, R23, R31, R33, R34, R41, R45, R46, R49, R54, R57, R65, R67, R68, R72	Twenty-two submissions raised concern about the existing (perceived) poor traffic conditions which are present in Riverwood, including existing constraints on traffic movements between Webb Street and Belmore Road.	TfNSW undertook a traffic assessment to inform the REF. This assessment is presented in Section 6.1 of the REF and associated Traffic and Transport Impact Assessment. In general, the assessment found that the existing traffic network, from a traffic flow and intersection performance basis, operates generally satisfactorily in the local area surrounding the site for the Proposed Activity. The concerns regarding the existing traffic movement to and from Webb Street are noted, this information will be provided to Georges River Council for consideration as part of future traffic congestion easing.

No.	Submission no.	Issue(s) raised	TfNSW response
3.2	R1, R12, R16, R17, R20, R31, R33, R34, R46, R57, R66, R67, R68	Thirteen submissions raised concerns that the Proposed Activity would exacerbate existing traffic issues in Riverwood, particularly the intersection of Webb Street and Belmore Road.	TfNSW undertook a traffic assessment for the Proposed Activity. The results of the traffic assessment are provided in greater detail in Section 6.1.2 of the REF and summarised below. <u>Construction impacts</u> During construction the traffic modelling found that there would be a temporary impact to intersection performance, with delays of around 11 and 14 seconds during morning and evening peak periods respectively. Delays would result in queue lengths of up to 80 metres along the northern approach along Belmore Road, which would mostly be experienced at the Belmore/Thurlow Street intersection. At the Webb Street/Belmore Road intersection, while construction traffic entering Webb Street from the north (during the morning peak period) would impact intersection performance (with the average delay expected to increase from 12 seconds to 27 seconds), the overall performance is expected, based on the modelling undertaken, to continue to remain acceptable. During the evening peak, as construction vehicles exit Webb Street travelling north the performance of the western leg of the intersection would be reduced from a level of service C to a level of service D (indicating this intersection would be operating at near capacity temporarily during this period). It is estimated that average delays for these movements would increase by around seven seconds from around 35 seconds to 42 seconds. <u>Operational impacts</u> Once operational, the traffic impact assessment identified that impacts to traffic would be considered minimal. There would be a negligible difference between the future traffic volumes as a result of the Proposed Activity, which would add around 30 to 50 vehicles being introduced during morning and evening peak periods. The assessment also identified that increased background traffic growth would impact the existing traffic network which, by 2033, was estimated to reach a point where upgrades or efficiency improvements would be required on the local road network. In reference to the Webb Street/Belmore Road intersection, operation of the Proposed Activity was identified as not resulting in substantial change in performance until 2033, supporting the finding of the traffic assessment that future traffic growth would impact the network to a greater extent than traffic generated by the Proposed Activity. The intersection would maintain good performance during morning and evening peak periods, and queuing along Webb Street during evening periods would be between 70 and 100 metres in length.

No.	Submission no.	Issue(s) raised	TfNSW response
3.3	R72	One submission suggested the need for additional upgrades to the traffic lights at the intersection of Webb Street and Belmore Road should be included as part of the Proposed Activity to improve local traffic.	TfNSW undertook a traffic assessment for the Proposed Activity, the results of the traffic assessment are provided in greater detail in Section 6.1.2 of the REF. The assessment found that the impacts of the Proposed Activity itself would not result in a change of traffic (level of service) that would require additional treatments (such as modifications to the existing traffic signal upgrades).
3.3	R1	One submission raised the absence of a traffic management plan for the Proposed Activity.	A Construction Traffic Management Plan would be developed as part of the detailed design of the Proposed Activity (Section 6.1.2 and Section 6.1.3 of the REF) and would address a range of traffic related elements including as a minimum measures for: • ensuring adequate road signage at construction work sites to inform motorists and pedestrians of the proposed works • maximising safety and accessibility for pedestrians and cyclists • ensuring adequate sight lines to allow for safe entry and exit from the site • ensuring access to railway stations, businesses, entertainment premises and residential properties • managing impacts and changes to on and off-street parking and requirements for any temporary replacement provision • parking locations for construction workers • routes to be used by heavy construction-related vehicles • details for relocating kiss and ride spots • measures to manage traffic flows around the area affected by the Proposed Activity • preparing heavy vehicle access plans.
3.4	R68	One submission raised concern regarding the loss of available community parking as a result of the Proposed Activity limiting it to rail users.	TfNSW purchased the existing car park on Webb Street in December 2020 after it was placed on the market by Georges River Council in September 2020. The commuter car park will be operated under Transport Park&Ride and use Opal-activated boom gates. The primary goal of Transport Park&Ride is to make sure commuter car parks are available for those using public transport, however the car park would not be restricted to rail users. Non-commuters may use the car park at flat weekday or weekend rates.

No.	Submission no.	Issue(s) raised	TfNSW response
			The Proposed Activity would alleviate the current overflow of commuter parking on local streets surrounding Riverwood Station. As a result it is expected that more nearby timed and unrestricted parking will be available for the community.
3.5	R46, R49	Two submissions raised concern regarding the potential for increased risk of vehicle accidents as a result of the Proposed Activity.	A Road Safety Audit would be undertaken as part of the detailed design process and on completion of construction. The findings of the Road Safety Audit would be used to update/improve the current car park design where the safety audit identifies potential opportunities. The results of the audit would also be provided to Georges River Council for their information.
4.	**Location of Proposed Activity / options**		
4.1	R3, R4, R7, R11, R14, R18, R23, R36, R38, R39, R40, R44, R45, R47, R48, R49, R50, R52, R53, R54, R57, R58, R60, R61, R67, R70, R72, R73, R74	Twenty-nine submissions raised concerns over the chosen location for the Proposed Activity. Items of concern identified included: • the requirement for property acquisition for the proposed location • distance to and access to Riverwood station • existing traffic congestion • future traffic congestion • the need for more parking at Riverwood station • other preferred options (refer to response item 4.2 below).	As discussed in response to Item 2.1 (Table 1), the options assessment process concluded that the selected site would result in reduced impacts to property (including the need to acquire properties), stakeholders and the community compared to the alternative locations considered. In addition, the proposed site would meet the stated objectives of the Proposed Activity by providing customers with commuter parking within walking distance to the station and provide sufficient spaces to meet forecasted demand. Alternative options for additional commuter parking near Riverwood Station were investigated. Some options were not progressed due to significant walking distances for customers to Riverwood Station, or being too small to provide enough parking for customers. Further detail of the options assessment process and outcomes is provided in Section 2.4 of the REF. See also response 4.2 of Table 1. The Proposed Activity assists in responding to growth forecast in the region. Demand for parking at Riverwood Station was modelled with consideration to the current and future public transport network, future land use (including population, workforce and employment), population growth and known travel patterns. The traffic generation, distribution and intersection performance during operation of the Proposed Activity is summarised in section 6.1.2 of the REF. Overall, the impacts to traffic due to the operation of the Proposed Activity are considered to be minimal. See response 3.2 of Table 1.

No.	Submission no.	Issue(s) raised	TfNSW response
4.2	R4, R7, R14, R18, R23, R38, R39, R40, R44, R47, R48, R49, R50, R52, R54, R58, R61, R67, R70, R72, R73, R74	Twenty-two submissions identified a number of other preferred locations for the Proposed Activity including: • other side of Webb street (12) • eastern side of Riverwood station (4) • Club Rivers (3) • a multi-story car park on the existing parking site only without the need for property acquisition (3) • other suburbs (Beverly Hills / Mortdale) (2) • upgrades at other parking locations (2) • above the train line, as in Hurstville and Kogarah (2). *Note: Brackets identify the number of submissions suggesting alternative*	Alternative options for additional commuter parking near Riverwood Station were investigated as part of the initial stages of the Project. Some options were not progressed due to significant walking distances for customers to Riverwood Station, or being too small to provide enough parking for customers. Another option, located in similar proximity to the station at 1 Webb Street, was not progressed due to overshadowing of numerous residential properties, impacts to apartments and residents and additional acquisitions necessary for the Proposed Activity. Constructing a multi-storey car park over an operating rail line in Riverwood, Hurstville or Kogarah would be a considerable cost and would have the added complexity of constructing over an operating live rail corridor. Planning is underway for additional commuter car parking at Beverly Hills. The Proposed Activity is designed to drive a stronger customer experience outcome, to deliver improved travel to and between modes, encourage greater public transport use and better integrate interchanges with the role and function of town centres. The Proposed Activity assists in responding to forecasted growth in the region. Demand for parking at Riverwood Station was modelled with consideration to the current and future public transport network, future land use (including population, workforce and employment), population growth and known travel patterns. Inputs to modelling also included on-street parking availability and surveys of similar car parks. Modelling concluded a shortfall in commuter car parking in Riverwood in both 2026 and 2036 if more commuter car parking is not provided. The option put forward to the community provides customers with consolidated and convenient commuter parking within walking distance to the station.

No.	Submission no.	Issue(s) raised	TfNSW response
4.3	R19, R34, R53	Three submissions suggested alternative, non-parking options should be considered for the Proposed Activity, including: • improved local bus services, links, and connections to encourage public transport over parking, and • construction of a bus terminal rather than additional car parking.	The delivery of commuter car parks at key transport interchanges will provide a range of benefits, including: • improved customer access to the public transport network • encouraging mode shift away from private vehicles • improving the flexibility and reliability of customer's 'first and last mile' of their journey • contributing to reducing congestion on our road network. Demand for parking at Riverwood Station was modelled with consideration to the current and future public transport network, future land use (including population, workforce and employment), population growth and known travel patterns. Inputs to modelling also included on-street parking availability and surveys of similar car parks. Modelling concluded a shortfall in commuter car parking in Riverwood in both 2026 and 2036 if more commuter car parking is not provided. The Proposed Activity is designed to drive a stronger customer experience outcome, to deliver improved travel to and between modes, encourage greater public transport use and better integrate interchanges with the role and function of town centres. The Proposed Activity would also assist in responding to forecasted growth in the region and as such would support growth in commercial and residential development. Improved kiss and ride opportunities would be investigated during detailed design.
4.4	R52	One submission suggested there was no need for more parking at Riverwood Station as the station is not an express stop for train services, and therefore did not need additional commuter parking capacity.	TfNSW is committed to improving the customer experience on the public transport network across the whole of NSW. Commuter car parks are important gateways to the transport system and as such play a critical role in shaping the customer experience and perception of public transport. As identified in Section 6.1 of the REF, the Traffic and Transport Impact Assessment (WSP, 2021) observed all three commuter parking facilities within the vicinity of Riverwood Station at full capacity. Overflow car parking was also observed at unrestricted parking locations on Thurlow Street, Erskine Street, Littleton Street, Webb Street, Keppel Avenue, Short Avenue, William Road and Morotai Avenue. Around 180 to 210 cars were observed at overflow parking locations during the site visit for the traffic impact assessment. The Proposed Activity is designed to improve access to and availability of parking for commuters using Riverwood Station and to encourage greater public transport use and better integrate interchanges with the role and function of town centres. This includes consideration of all stations across the network, not just stations that cater for express services.

No.	Submission no.	Issue(s) raised	TfNSW response
5	**Design**		
5.1	R13, R20, R69 (Riverwood Plaza)	Three submissions suggested that the Proposed Activity should include a direct pedestrian access connection to the existing Riverwood Plaza, with one submission (R69) suggesting this would improve direct pedestrian access to Riverwood Station (rather than the need to walk along Webb Street and Belmore Road).	The details of the Proposed Activity would be further refined as part of the detailed design phase, however, there are currently no plans to provide direct pedestrian access between the Proposed Activity and the existing Riverwood Plaza. The purpose of the Commuter Car Park is to provide and encourage greater public transport use and better integrate interchanges between different modes of transport. In addition, the Proposed Activity requires 24-hour access which would be incompatible with the opening hours of Riverwood Plaza. Any commuter access to Riverwood Plaza would be required to be managed by the operators of Riverwood Plaza.
5.2	R77, R63	Two submissions suggested bike storage should be included as part of the Proposed Activity.	Riverwood Station currently provides a number of interchange facilities including bicycle parking. As noted in Section 6.1.3 of the REF, detailed design of the Proposed Activity would investigate opportunities to provide new bicycle storage for commuters.
5.3.	R22	One submission suggested the Proposed Activity should provide online connectivity and the ability for motorists to view real time capacity of the car park.	When the Transport 'Park&Ride' Access Control System (P&RACS) is operational, car park occupancy data can be collected using smart parking systems. The data is available for endorsed third-party app developers. The real-time car park feature would provide customers with an approximate number of parking spaces available at each location along with predictive occupancy patterns based on historical data to help customers better plan their trips.
5.4	R20, R69 (Riverwood Plaza)	Two submissions raised concerns regarding safety risks to pedestrians who may utilise the existing loading dock at the rear of the Riverwood Plaza to access Riverwood Station from the new car park. In particular, submission R69 suggested pedestrians should be discouraged from using this area to access Riverwood Station.	The details of the Proposed Activity would be further refined as part of the detailed design phase, however the Proposed Activity would not provide direct access to the loading dock of Riverwood Plaza or Riverwood Plaza itself. Pedestrians would be discouraged from utilising the loading dock as a thoroughfare with the installation of appropriate lighting and wayfinding signage to direct pedestrians to Riverwood Station via Webb Street and Belmore Road.

No.	Submission no.	Issue(s) raised	TfNSW response
5.5	R2	One submission noted a preference towards an open space design to avoid any antisocial behaviour and make it easier to monitor.	The design of the Proposed Activity would have regard to Crime Prevention Through Environmental Design (CPTED) principles. This includes maximising passive surveillance, minimising obstructions to lines of sight, blocking or removing secluded areas, landscaping considerations, sufficient lighting and CCTV. As described in Section 1.1 of the REF, closed circuit television (CCTV) and appropriate lighting and wayfinding signage for safety and security would be installed as part of the Proposed Activity. The final location and number of CCTV security cameras and layout of lighting and wayfinding signage would be determined by a site specific risk assessment as part of the detailed design.
5.6	R22	One submission suggested the proposed Activity should contain additional parking levels.	The Proposed Activity has been designed to meet anticipated demand for commuter car parking at Riverwood station, which was modelled with consideration to the current and future public transport network, future land use (including population, workforce and employment), population growth and known travel patterns. Inputs to modelling also included on-street parking availability and surveys of similar car parks. The design of the Proposed Activity has also aimed to minimise bulk and scale to ensure compatibility with the surrounding urban environment and landscape character as outlined in section 6.2 of the REF.
5.7	R20	One submission suggested switching the vehicle entry and exit points to provide consistency with the adjacent shopping centre parking access.	As part of the detail design phase, TfNSW would further assess the entry/exit points and as part of the proposed Road Safety Audit. The Road Safety Audit would identify where the design is to be modified to ensure safe entry and exit from the car park.
6	**Community Consultation**		
6.1	R23, R35, R68, R73, R74, R75, R76a	Seven submissions suggested the community consultation has been poor and / or the correct consultation process has not been followed.	A summary of the community and stakeholder consultation undertaken as part of the development of the Proposed Activity (and during exhibition) was provided in Chapter 5 of the REF. The Proposed Activity was announced to the public in February 2021. At this time, TfNSW issued a project newsletter to nearby properties and Georges River Council explaining the Proposed Activity. Contact details were provided to allow for enquiries or questions from interested stakeholders from this time onwards.

No.	Submission no.	Issue(s) raised	TfNSW response
			Ongoing engagement with the owners/tenants of the properties that need to be acquired to deliver the Proposed Activity have also been continuing during the development of the concept design. Engagement has also occurred with adjacent property owners including the owners of Riverwood Plaza, 18 Webb Street and the business located at 13 Webb Street. As outlined in Section 2.1 of this Determination Report a range of consultation opportunities were also available during the exhibition of the Proposed Activity including. • a dedicated project webpage on TfNSW website • project update to local community • geographically targeted social media post to Riverwood and surrounding suburbs Consultation with Georges River Council, Sydney Trains, and other non-community stakeholders was also undertaken.
6.2	R35	One submission suggested no consultation was undertaken on alternative solutions (for the location of the car park) with the residents of the properties proposed to be acquired (except for 90-day notifications)	There is a legislated process used by the NSW Government to acquire land that is required for infrastructure projects. The first step is for TfNSW staff to make face-to-face contact with each of the affected owners and residents. They explain how the process works and what to expect, as well as offer any support the residents and owners may need. This initial contact was made in February 2021 before any public announcements were made. It is extremely important we notify residents and owners in-person, where possible, and in a timely manner. TfNSW understands this process is difficult for the affected residents which is why, during the first meeting, the owners and tenants were provided with a Personal Manager to guide them through the process and offer support, including access to counselling services. Alternative options were investigated and considered prior to commencing the process to acquire residential properties. Some alternative options were not progressed due to significant walking distances for customers to Riverwood Station or being too small to provide enough parking for customers. Further detail of the options assessment process and outcomes is provided in Section 2.4 of the REF. See also Item 2.1 and 2.2 in Table 1.

No.	Submission no.	Issue(s) raised	TfNSW response
6.3	R35, R60, R68, R76	Two submissions suggested no direct community consultation was undertaken with the community on the location of the Proposed Activity.	The Proposal was announced to the public in February 2021. At this time, Transport for NSW issued a project newsletter to all nearby properties and Georges River Council explaining the Proposed Activity. The Riverwood Commuter Car Park REF was placed on public display from 16 July 2021 to 30 July 2021 on the TfNSW corporate website. The purpose of the display of the REF was to provide details of the proposed car park to the wider community and allow for members of the public to view the proposed plans and provide feedback. This was the first opportunity to undertake meaningful consultation with the wider community. As outlined in Section 2.1 of this Determination Report a range of consultation opportunities were also available during the exhibition of the Proposed Activity including: • a dedicated project webpage on TfNSW website • project update to local community • geographically targeted social media post to Riverwood and surrounding suburbs Consultation with Georges River Council, Sydney Trains, and other non-community stakeholders was also undertaken. Community consultation was carried out at the same time as public display of the REF, which provides the community time to review the Proposal and provide feedback. Community and feedback is considered as part of the planning approval process and throughout detailed design. Should Transport for NSW determine to proceed with the Proposal, the project team would keep the community, Councils and other key stakeholders informed of the process, identify any further issues as they arise, and develop additional mitigation measures to minimise the impacts of the Proposal. The interaction with the community would be undertaken in accordance with a Community Liaison Plan to be developed prior to the commencement of construction.
7.	**Amenity / community**		
7.1	R12, R34	Two submissions raised concerned about noise impacts of the Proposed Activity.	It is acknowledged that the construction of the Proposed Activity would result in some temporary, generally short-term noise impacts. Where exceedances are anticipated, a combination of implementing the mitigation identified in Section 6.3.3 of the REF and consultation with receivers would be undertaken to manage and minimise impacts as far as practicable.

No.	Submission no.	Issue(s) raised	TfNSW response
			Further, as identified in Section 6.3.2 of the REF, the assessment noted that the potential noise impacts associated with operation of the Proposed Activity (such as mechanical plant noise associated with rooftop lift motors) were anticipated to comply with required levels and vehicle operation noise (such as car parking) had the potential to result in minor exceedances of operational noise impacts. As noted, to reduce operational noise impacts associated with the new car park, reasonable and feasible mitigation options would be considered during detailed design. Measures to be considered would include, but would not be limited to, inclusion of absorptive internal linings, and ramps, concrete surface finishes to avoid wheel squeal in all areas trafficable by vehicles, acoustic louvres and increased barrier heights.
8	**Other**		
8.1	R13, R52, R55	Three submissions suggested compatibility (i.e. frequency) with existing Riverwood train services should be improved, as they are currently infrequent and congested.	Changes to the existing frequency of trains operating at Riverwood Station is outside the scope of the Proposed Activity. TfNSW appreciates customer feedback about our public transport services and regularly monitors patronage to ensure services are meeting demand. Concerns regarding this issue have been noted and will be passed onto the relevant operations team within TfNSW.
8.2	R52	One submission noted existing local parking constraints, such as difficulty in getting street parking permits.	Existing local parking constraints outside of the currently impacted area is outside the scope of the Proposed Activity, however the Proposed Activity would provide a dedicated commuter car park which would relieve some pressure on existing commuter car parking in surrounding streets. Concerns regarding this issue have been noted and would be passed onto Georges River Council for consideration.
8.3	R55	One submission suggested that the Proposed Activity should include improvements to parking on William Street so larger vehicles do not park there.	Changes to existing local parking arrangements is outside the scope of the Proposed Activity. Concerns regarding this issue have been noted and would be passed onto Georges River Council for consideration.

No.	Submission no.	Issue(s) raised	TfNSW response
8.6	R6, R82	Two submissions raised concerns regarding the costs of parking fees.	As described in section 3.1 of the REF, the Proposed Activity would include the installation of Transport Park&Ride infrastructure. Transport Park&Ride car parks use Opal-activated boom gates to free-up more spaces for those who want to travel on public transport. The primary goal of Transport Park&Ride is to make sure commuter car parks are available for those using public transport and discourage use by non-commuters. Parking is free for a valid public transport journey using an accepted Opal card. Free parking is valid for 18 hours. After 18 hours, commercial parking rates apply. Customers who do not catch public transport within 18 hours from the time of entry would be charged commercial parking rates.
8.7	R51, R78	One submission raised concerns over the timing and need of the Proposed Activity as demand is currently low and construction is unable to commence.	TfNSW acknowledge that the current demand for parking during the COVID-19 situation is lower than normal. However, TfNSW recognises the critical role commuter car parks will play in the future (when previous demand returns to a more normal, pre-COVID level) in improving the quality of access to public transport in the customer's first and last mile, particularly in middle and outer metropolitan areas. The Proposed Activity would also assist in responding to forecasted growth in the region and would support growth in commercial and residential development. The need for the Proposed Activity is considered to be justified within the overall objectives for the Commuter Car Park program.
8.8	R20	One submission raised concerns regarding the potential hazard/risk to pedestrians crossing in front of the Riverwood Plaza car park entry.	As part of the detailed design phase, TfNSW would further assess the entry/exit points as part of a Road Safety Audit. The Road Safety Audit would identify where the design should be modified to ensure safe entry and exit from the car park for both vehicles and pedestrians.

Other stakeholder submissions

Table 2 outlines issues raised by Georges River Council along with TfNSW's response.

Table 2 Response to other stakeholder submissions received – Georges River Council

Issue no.	Issue Category	Issue(s) raised	TfNSW response
1	**Traffic, transport and access**		
1.1	Intersection analysis	Council requested consideration of the nearby intersections which are near capacity and requested further measures to encourage arrival of cars outside the AM and PM peak times, such as discounted rates for arriving earlier than AM peak and leaving later than PM peak. Council also requested that TfNSW provide a 'rat run' impact analysis on local roads such as Short Road, Keppel Avenue and Webb Street from the west approach.	Section 6.2 of the Traffic and Transport Impact Assessment identified a series of recommended mitigation measures for consideration including potential intersection upgrades to reduce impacts during operation. With respect to consideration of opportunities such as providing discounted rates, the rates for parking would be free for a valid public transport journey using an accepted Opal card. Free parking is valid for 18 hours. After 18 hours, standard commercial parking rates apply. Commuter car parks are developed and operated by TfNSW to maximise the availability of spaces for those who want to travel on public transport. TfNSW sets the pricing and access policies to achieve this objective, taking into account customer demand and capacity issues, as well as stakeholder feedback. With respect to the consideration of a 'rat run analysis', during construction, this issue would be managed through the implementation of the construction Traffic Management Plan (and associated vehicle management plan(s) (or similar)) and would seek to restrict movement of construction vehicles (where feasible) to utilising the Webb Street and Belmore Road intersection, thereby avoiding the use of roads such as Short Road and Keppel Avenue. During operation, it is anticipated that the traffic generated by the car park would not be substantial enough to warrant the additional assessment.

<table>
<tr><th>Issue no.</th><th>Issue Category</th><th>Issue(s) raised</th><th>TfNSW response</th></tr>
<tr><td>1.2</td><td>Queuing</td><td>Council requested additional information regarding the boom gate queuing calculations to justify requirements for two waiting bays to ensure that the 98th percentile requirement for the (M/M/1) steady state queuing analysis is satisfied.</td><td>The current design of the Proposed Activity provides capacity for around 140 car parking spaces. Clause 3.4 – Queuing Areas of AS2890.1 provides for calculating the minimum queuing length at a car park with boom gates. On the assumption that the peak hourly in-flow of traffic is up to 75 per cent of the car park capacity, the minimum queuing length for the commuter car park would be calculated as follows:<table><tr><th>Requirement</th><th>Queuing areas needed</th></tr><tr><td>3% x 100 cars</td><td>3</td></tr><tr><td>2% x 40 cars</td><td>0.8</td></tr><tr><td>Total</td><td>3.8 car length of queuing space</td></tr></table>As the car park would have two entry boom gates, the queuing space between the boom gates and property boundary would be able to fit around two cars each. Therefore, the queuing areas could accommodate four cars without impacting on pedestrian or traffic flow. The current design of the car park would therefore meet the Australian Standards minimum requirement for queuing areas at a car park with boom gates.</td></tr>
<tr><td>1.3</td><td>Construction phase & safety</td><td>Council requested implementation of mitigation measures to reduce construction traffic during morning and afternoon peak times.
Request for a Road Safety Audit to be prepared for the final design of the car park prior to approvals granted to ensure safety of pedestrians and vehicles at access points of the car park.</td><td>Section 6 of the Traffic and Transport Impact Assessment identified a range of mitigation measures can be implemented to minimise impacts during the construction of the Proposed Activity. These measures would be detailed in the construction Traffic Management Plan for the Proposed Activity (refer to mitigation measure 35) in Appendix B. This plan would include consideration (among other elements) for measures to reduce construction traffic during morning and afternoon peak times.
As part of the detail design phase, TfNSW would further assess the entry/exit points and as part of the proposed Road Safety Audit. The Road Safety Audit would identify where the design is to be modified to ensure safe entry and exit from the car park.</td></tr>
<tr><td>1.4</td><td>Swept path analysis</td><td>Council requested swept path diagrams for ingress and egress movements for the car park be provided for the Proposed Activity.
Council also requested the car park is designed in accordance with relevant Austroads and Australian Standards for car parking design.</td><td>The car park would be designed in accordance with the relevant Austroads and Australian Standards for car parking design.
Final swept path diagrams for ingress and egress movements for the car park would be developed during detailed design. These plans would be made available to Georges River Council once finalised.</td></tr>
</table>

Issue no.	Issue Category	Issue(s) raised	TfNSW response
1.5	Vehicular access to the car park	Council requested that vehicular access and egress to the car park be consolidated with Riverwood Plaza with a view to have a single point of access for both the plaza and car park rather than individual access points.	A Traffic and Transport Impact Assessment has been completed based on existing traffic flows providing separate access/egress to the commuter car park. As identified in Section 6.1 of the REF, once operational, the traffic impact assessment identified that impacts to traffic would be considered minimal. Separate access is proposed to avoid disruption to the flow of customer vehicles accessing Riverwood Plaza and trucks accessing the loading dock. Installation of Transport Park&Ride boom gates is also proposed which requires dedicated entry and exits points. As such, separate access to the commuter car park is proposed. As part of the detailed design phase, TfNSW would further assess the entry/exit points as part of a Road Safety Audit. The Road Safety Audit would identify where the design should be modified to ensure safe entry and exit from the car park for both vehicles and pedestrians.
1.6	Demand generated by traffic movement	Council requested that the mitigation measures for the Proposed Activity be further refined to address additional demand that would be generated by traffic movement from western suburbs of the LGA	As identified in Section 6.1 of the REF (and Chapter 5 of the Traffic and Transport Impact Assessment), once operational, the traffic impact assessment identified that impacts to traffic would be considered minimal. There would be a negligible difference between the future traffic volumes as a result of the Proposed Activity, which would add around 30 to 50 vehicles being introduced during morning and evening peak periods. Notwithstanding, Section 6.2 of the Traffic and Transport Impact Assessment identified a series of recommended mitigation measures available to address and reduce the level of impact to the network surrounding the Proposed Activity during future operation which included consideration of future traffic demand. Further consideration of mitigating traffic impacts for traffic movement from western suburbs of the LGA is considered to be outside the scope of the current works.
1.7	Accessible parking spaces	Council requested additional accessible parking spaces be provided, as well as dedicated parking for seniors and parents with prams.	The provision of accessible parking spaces would comply with the relevant Australian Standards (AS2890.6-2009 Part 6: Class 7 Car parks). As noted in Section 3.1 of the REF, the Proposed Activity would provide a minimum of three accessible or DDA compliant parking spaces. Additional dedicated parking spaces for seniors and parents with prams would be considered as part of the detailed design of the Proposed Activity.

Issue no.	Issue Category	Issue(s) raised	TfNSW response
2	**Visual amenity**		
2.1	Residential amenity	Council raised concern that the Proposed Activity would result in loss of residential amenity for dwellings located along Webb Street, particularly for No.18 Webb Street with respect to visual, acoustic, headlight glare and built form. Request for 18 Webb Street to be acquired and form part of the Proposed Activity to provide a greater landscaped buffer to the adjoining residential development.	The Proposed Activity would implement a range of mitigation measures to manage residential amenity along Webb Street. This includes the following: • the design of the car park would incorporate screening at each level to contain the break out of headlights to surrounding properties • liaise with neighbours to the west (18 Webb Street) to confirm landscape treatment within the garden area to the west of the site • the louvres or architectural screen along the western and southern façade would be designed to screen cars and headlights from nearby residential properties, as well as provide texture and shadow to reduce the visual scale of the structure Reasonable and feasible mitigation options to reduce operational noise impacts would be considered during detailed design. Measures would include, but would not be limited to, inclusion of absorptive internal linings, sealed façades and ramps, concrete surface finishes to avoid wheel squeal in all areas trafficable by vehicles, acoustic louvres and increased barrier heights. The effectiveness of any treatments would be validated following construction by testing of offsite noise levels to confirm the effectiveness of the measures. If exceedances of noise management levels remain, at property treatment would be implemented where reasonable and feasible (where agreed by the property owner).
2.2	Isolation of 18 Webb Street	Council raised concern the Proposed Activity would prevent the future redevelopment of 18 Webb Street due to minimum lot size requirements.	The Proposed Activity does not require the acquisition of 18 Webb Street to achieve the current design and would not change the existing size of this lot. Future development of the site would continue to be subject to existing council requirements and approvals processes.

Issue no.	Issue Category	Issue(s) raised	TfNSW response
2.3	Landscaping	Council requested that the landscaping plan considers Council's Tree Management Policy and provide endemic species as nominated within Council's Biodiversity Backyard Guide. Council also requested for adequate canopy tree planting to be provided, with canopy trees that can grow to six metres in height. Council additionally requested that neighbouring trees to be protected at all times.	An Urban Design and Landscape Plan would be prepared during the detailed design. The Plan would include materials and landscaping, that would be selected on the basis of sustainability principles. TfNSW would continue to consult with Council throughout detailed design and construction on the proposed landscaping for the car park. Tree Protection Zones (TPZs) would be established around trees to be retained. Tree protection would be undertaken in line with *AS 4970-2009 Protection of Trees on Development Sites* and would include exclusion fencing of TPZs.
3	**Urban design**		
3.1	Integration of the car park to the streetscape	Council suggested to utilise a natural colour palette, especially for the lourves/screening proposed on the western and southern facades to integrate into the leafy character of the streetscape.	Finishes and materials for the car park would be complementary to the existing locality and landscape and reflective surfaces would be minimised with a preferred use of muted colours.
3.2	Built form	Council raised concern that the bulk and scale of the architectural treatment shown in the photomontages may not be compatible with existing future desired built form.	The design of the Proposed Activity aims to minimise bulk and scale to ensure compatibility with the surrounding urban environment and landscape character as outlined in section 6.2 of the REF. The proposed height of three storeys is considered to be compatible with the existing streetscape of Webb Street, especially in its proposed location adjacent to the existing Riverwood Plaza.
4	**Other**		
4.1	Approval under Section 68 of the *Local Government Act 1993*	Council requested confirmation of the need to obtain approval from Council under Section 68 of the *Local Government Act 1993.*	A Commuter Car Park does not meet the definition of a public car park, as the purpose is to provide parking to commuters. Commuter car parks are defined as 'associated public transport facilities' under the *State Environmental Planning Policy (Infrastructure) 2007* which includes the following: *(a) car parks intended for use by commuters* Therefore, a commuter car park is not considered a public car park as defined under the *Local Government Act 1993*.

Table 3 outlines issues raised by the State Emergency Service along with TfNSW's response.

Table 3 Response to the State Emergency Service's submission

Issue no.	Issue(s) raised	TfNSW response
1	**Design**	
1.1	Encouraged site design and stormwater management that minimises any risk to the community	Stormwater and drainage infrastructure would be designed in accordance with the relevant standards and requirements including those from Georges River Council. The implementation of these standards and recommendations is expected to ensure that the works do not adversely impact upon existing drainage infrastructure and to minimise and manage potential flood impacts. Potential operational flooding impacts are discussed in further detail in Section 6.9 of the REF.
1.2	Recommended an emergency plan that includes measures to prepare for, respond to and recover from flooding	The Construction Contractor would prepare an emergency plan for the construction phase of the Proposed Activity. The plan would address the risk of flooding of the construction site. As described in Condition 38 of this Determination Report, a detailed Flood Impact Assessment (FIA) would be undertaken prior to the finalisation of detailed design in accordance with relevant standards. The FIA would include hydrological modelling of potential changes in flood risk. If hydrological modelling identifies the inundation events up to and including the 1% AEP, an Operational Flood Management Plan (OFMP) shall be prepared which addresses measures to prepare for, respond to and recover from flooding.
1.3	Recommended that users of the commuter car park be made aware of the flood risk	The community would be provided with regular updates during the construction phase of the Proposed Activity on the progress of the work. Where relevant, the community would be made aware of the existing flood risk at the commuter car park and any change to this risk as a result of the construction work. Appropriate signage for flood risk would be investigated as part of detailed design.

2.4. Future consultation

Consultation activities will continue as the Proposed Activity progresses including consultation with Georges River Council (and other stakeholders) regarding design development. In addition, TfNSW would notify residents, businesses and community members in the lead up to and during construction. The consultation activities would help to ensure that:

- local council and other stakeholders have an opportunity to provide feedback on the detailed design
- the community and stakeholders are notified in advance of any upcoming works, including changes to pedestrian or traffic access arrangements and out of hours construction activities
- accurate and accessible information is made available
- a timely response is given to issues and concerns raised by the community
- feedback from the community is encouraged.

The TfNSW email address[3] and TfNSW Infoline (1800 684 490) would continue to be available during the construction phase. Targeted consultation methods, such as letters, notifications, signage and verbal communications, would continue to occur. The TfNSW project website[4] would also include updates on the progress of construction.

All consultation activity would be in line with current Public Health Orders and a COVID-19 Safe plan would be in place.

[3] projects@transport.nsw.gov.au

[4] https://www.transport.nsw.gov.au/projects/current-projects/riverwood-commuter-car-park

3. Changes to the Proposed Activity

There have been no design changes proposed to the Proposed Activity following the public display of the REF.

However, opportunities for further refinement of the Proposed Activity would be considered during the detailed design phase.

The REF noted the works would start late 2021. Construction of the Proposed Activity is now anticipated to start mid-2022.

4. Consideration of the environmental impacts

4.1. NSW Environmental Planning and Assessment Act 1979

The REF addresses the requirements of Section 5.5 of the EP&A Act. In considering the Proposed Activity, all matters affecting or likely to affect the environment are addressed in the REF and the Determination Report and associated documentation.

In accordance with the checklist of matters pursuant to clause 228(3) of the EP&A Regulation, an assessment is provided in Chapter 6 and Appendix B of the REF.

In respect of the Proposed Activity an assessment has been carried out regarding potential impacts on critical habitat, threatened species, populations or ecological communities or their habitats, under Section 5.7 of the EP&A Act.

The likely significance of the environmental impacts of the Proposed Activity has been assessed in accordance with the then NSW Department of Planning's 1995 best practice guideline *Is an EIS Required?*[5] It is concluded that the Proposed Activity is not likely to significantly affect the environment (including critical habitat) or threatened species, populations of ecological communities, or their habitats. Accordingly, an environmental impact statement under Division 5.2 of the EP&A Act is not required.

4.2. Commonwealth Environment Protection and Biodiversity Conservation Act 1999

As part of the consideration of the Proposed Activity, all matters of national environmental significance (NES) and any impacts on Commonwealth land for the purposes of the EPBC Act have been assessed. In relation to NES matters, this evaluation has been undertaken in accordance with Commonwealth Administrative Guidelines on determining whether an action has, will have, or is likely to have a significant impact. A summary of the evaluation is provided in Chapter 6 and Appendix A of the REF.

It is considered that the Proposed Activity described in the REF is not likely to have a significant impact on any Commonwealth land and is not likely to have a significant impact on any matters of NES.

[5] Refer to the National Library of Australia's 'Trove' website http://trove.nla.gov.au/work/7003034?selectedversion=NBD11474648

5. Conditions of Approval

If approved, the Proposed Activity would proceed subject to the Conditions of Approval included at Appendix B.

6. Conclusion

Having regard to the assessment in the REF, consideration of the submissions received during the public display of the REF, it can be concluded that the Proposed Activity is not likely to significantly affect the environment (including critical habitat) or threatened species, populations of ecological communities, or their habitats. Consequently, an environmental impact statement (EIS) is not required to be prepared under Division 5.2 of the EP&A Act.

It is also considered that the Proposed Activity does not trigger any approvals under Part 3 of the EPBC Act.

The environmental impact assessment (REF and Determination Report) is recommended to be approved subject to the proposed mitigation and environmental management measures included in the Conditions of Approval (refer to Appendix B).

Determination

Riverwood Commuter Car Park

APPROVAL

I, Justin Perrott, as delegate of the Secretary, Transport for NSW:

1. Have examined and considered the Proposed Activity in the *Riverwood Commuter Car Park Review of Environmental Factors* (July 2021) and the *Riverwood Commuter Car Park Determination Report* (September 2021) in accordance with Section 5.5 of the NSW *Environmental Planning and Assessment Act 1979.*

2. Determine on behalf of Transport for NSW (the Proponent) that the Proposed Activity may be carried out in accordance with the Conditions of Approval in this Determination Report (September 2021), consistent with the Proposed Activity described in the *Riverwood Commuter Car Park Review of Environmental Factors* (July 2021).

Justin Perrott
Director Environment & Sustainability (Rail Development & Delivery)
Environment and Sustainability
Safety, Environment and Regulation Division
Transport for NSW

Date:
23 September 2021

References

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Landcom, 2004, *Managing Urban Stormwater: Soils and Construction Volume 1 4th Edition*, Sydney

Transport for NSW, July 2021, *Commuter Car Park Review of Environmental Factors,* Sydney

Transport for NSW, 2019, *Vegetation Offset Guide*, Sydney

Appendix A Review of Environmental Factors

Please refer to the TfNSW website to access the Riverwood Commuter Car Park – REF (Desksite: #6595976):

https://www.transport.nsw.gov.au/projects/current-projects/riverwood-commuter-car-park

Appendix B Conditions of Approval

CONDITIONS OF APPROVAL

Riverwood Commuter Car Park

Note: these Conditions of Approval must be read in conjunction with the final mitigation measures in the Riverwood Commuter Car Park Review of Environmental Factors (July 2021 – Desksite: #6595976).

Schedule of acronyms and definitions used:

Acronym	Definition
AFC	Approved For Construction
CECR	Construction Environmental Compliance Report
CEMP	Construction Environmental Management Plan
CIR	Contamination Investigation Report
CLMP	Community Liaison Management Plan
CMP	Contamination Management Plan
CoA	Condition of Approval
dBA	Decibels (A-weighted scale)
DES	TfNSW Director Environment & Sustainability (Rail Development & Delivery) (or nominated delegate)
ECM	Environmental Controls Map
EIA	Environmental Impact Assessment
EPA	NSW Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPL	Environment Protection Licence issued by the Environmental Protection Authority under the *Protection of the Environment Operations Act 1997*.
EMR	Environmental Management Representative
EMS	Environmental Management System
FIA	Flood Impact Assessment
HIS	Heritage Interpretation Strategy
ISO	International Standards Organisation
OFMP	Operational Flood Management Plan
ONVMP	Operational Noise and Vibration Management Plan
OOHWP	Out of Hours Works Protocol
POCR	Pre-Operational Compliance Report
RBL	Rating Background Level
REF	Review of Environmental Factors
SMP	Sustainability Management Plan
TfNSW	Transport for NSW
TMP	Traffic Management Plan
UDLP	Urban Design and Landscaping Plan

Term	Definition
Construction	Includes all work in respect of the Project, other than survey, acquisitions, fencing, investigative drilling or excavation, building/road dilapidation surveys, or other activities determined by the TfNSW DES to have minimal environmental impact such as minor access roads, minor adjustments to services/utilities, establishing temporary construction compounds (in accordance with this approval), or minor clearing (except where threatened species, populations or ecological communities would be affected, unless otherwise agreed by the DES).
Contamination	The presence in, on or under land of a substance at a concentration above the concentration at which the substance is normally present in, on or under (respectively) land in the same locality, being a presence that presents a risk of harm to human health or any other aspect of the environment.
Designated Works	Includes tunnelling, blasting, piling, excavation or bulk fill or any vibratory impact works including jack hammering and compaction, for Construction.
Emergency Work	Includes works to avoid loss of life, damage to external property, utilities and infrastructure, prevent immediate harm to the environment, contamination of land or damage to a heritage (Aboriginal or non-Aboriginal) item.
Environmental Impact Assessment (EIA)	The documents listed in Condition 1 of this approval.
Environmental Management Representative (EMR)	An independent environmental representative appointed to the Project or a delegate nominated by Transport for NSW.
Feasible	A work practice or abatement measure is feasible if it is capable of being put into practice or of being engineered and is practical to build given project constraints such as safety and maintenance requirements.
Noise Sensitive Receiver	In addition to residential dwellings, noise sensitive receivers include, but are not limited to, hotels, entertainment venues, pre-schools and day care facilities, educational institutions (e.g. schools, TAFE colleges), health care facilities (e.g. nursing homes, hospitals), recording studios, places of worship/religious facilities (e.g. churches), and other noise sensitive receivers identified in the Environmental Impact Assessment.
Project	The construction and operation of the Riverwood Commuter Car Park as described in the Environmental Impact Assessment.
Proponent	A person or body proposing to carry out an activity under Division 5.1 of the EP&A Act – in the case of the Project, Transport for NSW.
Reasonable	Selecting reasonable measures from those that are feasible involves making a judgment to determine whether the overall benefits outweigh the overall adverse social, economic and environmental effects, including the cost of the measure.

CoA	Condition
	General
1.	**Terms of Approval** The Project shall be carried out generally in accordance with the environmental impact assessment (EIA) for this Project, which comprises the following documents: a) *Riverwood Commuter Car Park – Review of Environmental Factors* (Transport for NSW, July 2021) b) *Riverwood Commuter Car Park – Determination Report* (Transport for NSW, September 2021). In the event of an inconsistency between these conditions and the EIA, these conditions will prevail to the extent of the inconsistency.
2.	**Project Modifications** Any modification to the Project as approved in the EIA would be subject to further assessment. This assessment would need to demonstrate that any environmental impacts resulting from the modifications have been minimised. The assessment shall be subject to approval under delegated authority by TfNSW, and any additional requirements from the assessment of the Project modification must be complied with.
3.	**Statutory Requirements** These conditions do not remove any obligation to obtain all other licences, permits, approvals and land owner consents from all relevant authorities and land owners as required under any other legislation for the Project. The terms and conditions of such licences, permits, approvals and permissions must be complied with at all times.
4.	**Pre-operation compliance report** A pre-operation compliance report (POCR) for the Project shall be prepared, prior to commencement of operation of the Project. The POCR shall detail compliance with all conditions of approval, licences and permits required to be obtained under any other legislation for the project. The Proponent shall: a) submit a copy of the POCR to the EMR for review. The EMR is to be given a minimum period of 7 days to review and provide any comments to the Proponent in relation to the POCR. b) upon completion of the EMR review period submit a copy of the POCR to the DES (or nominated delegate) for approval. The POCR is to be provided to the DES at least one month prior to the scheduled operation of the Project (or such time as otherwise agreed to by the DES).
5.	**Construction Environmental Compliance Report** A Construction Environmental Compliance Report (CECR) for the Project shall be prepared which addresses the following matters: a) compliance with the Construction Environmental Management Plan (CEMP) and these conditions b) compliance with any approvals or licences issued by relevant authorities for the construction of the Project c) implementation and effectiveness of environmental controls (the assessment of effectiveness should be based on a comparison of actual impacts against performance criteria identified in the CEMP) d) environmental monitoring results, presented as a results summary and analysis e) details of the percentage of waste diverted from landfill and the percentage of spoil beneficially reused

CoA	Condition
	f) number and details of any complaints, including summary of main areas of complaint, actions taken, responses given and intended strategies to reduce recurring complaints (subject to privacy protection) g) details of any review and amendments to the CEMP resulting from construction during the reporting period h) any other matter as requested by the DES. The CECR shall: i. be submitted to the EMR for review. The EMR is to be given a minimum period of seven days to review and provide any comments to TfNSW in relation to the CECR ii. be submitted to the DES for approval upon completion of the EMR review period. The first CECR shall report on the first six months of construction and be submitted within six weeks of expiry of that period (or at any other time interval agreed to by the DES). CECRs shall be submitted no later than six months after the date of submission of the preceding CECR (or at other such periods as requested by the DES) for the duration of construction. The final CECR shall detail compliance with all Conditions of Approval, licences and permits required to be obtained under any other legislation for the Project.
6.	**Graffiti and Advertising** Hoardings, site sheds, fencing, acoustic walls around the perimeter of the site, and any structures built as part of the Project shall be maintained free of graffiti and advertising not authorised by TfNSW during the construction period. Graffiti and unauthorised advertising shall be removed or covered within the following timeframes: a) offensive graffiti will be removed or concealed within 24 hours b) highly visible (yet inoffensive) graffiti will be removed or concealed within a week c) graffiti that is neither offensive or highly visible will be removed or concealed within a month d) any unauthorised advertising material will be removed or concealed within 24 hours.
	Communications
7.	**Community Liaison Management Plan** A Community Liaison Management Plan (CLMP) shall be prepared and implemented to engage with government agencies, relevant councils, landowners, community members and other relevant stakeholders (such as utility and service providers, bus companies, Taxi Council and businesses). The CLMP shall comply with the obligations of these conditions and should include, but not necessarily be limited to: a) a comprehensive, project-specific analysis of issues and proposed strategies to manage issues through the duration of the Project b) details of the communication tools (traditional and digital) and activities that will be used to inform and engage the community and stakeholders c) a program for the implementation of community liaison activities relating to key construction tasks with strategies for minimising impacts and informing the community d) policies and procedures for handling community complaints and enquiries, including the Contractor's nominated 24 hour contact for management of complaints and enquiries e) analysis of other major projects/influences in the area with the potential to result in cumulative impacts to the community and strategies for managing these. The CLMP shall be prepared to the satisfaction of the Director Community Engagement (or nominated delegate) prior to the commencement of construction and implemented, reviewed and revised as appropriate during the construction of the Project.

CoA	Condition
8.	**Community Notification and Liaison** The local community shall be advised of any activities related to the Project with the potential to impact upon them. Prior to any site activities commencing and throughout the Project duration, the community is to be notified of works to be undertaken, the estimated hours of construction and details of how further information can be obtained (i.e. contact telephone number/email, website, newsletters etc.) including the 24 hour construction response line number. Construction-specific impacts including information on traffic changes, access changes, detours, services disruptions, public transport changes, high noise generating work activities and work required outside the nominated working hours shall be advised to the local community at least seven days prior to such works being undertaken or other period as agreed to by the Director Community Engagement or as required by the Environment Protection Authority (EPA) (where an Environment Protection Licence (EPL) is in effect).
9.	**Website** Project information shall be made available to members of the public, either on dedicated pages on the TfNSW/Project website or details provided as to where hard copies of this information may be accessed. Project information to be provided includes: a) a copy of the documents referred to under Condition 1 of this approval b) a list of environmental management reports that are publicly available c) 24 hour contact telephone number for information and complaints. All documents uploaded to the website must be compliant with the *Web Content Accessibility Guidelines Version 2.0*.
10.	**Complaints Management** A 24 hour construction response line number shall be established and maintained for the duration of construction. Details of all complaints received during construction are to be recorded on a complaints register. A verbal response to phone enquiries on what action is proposed to be undertaken is to be provided to the complainant within two hours during all times construction is being undertaken and within 24 hours during non-construction times (unless the complainant agrees otherwise). A verbal response to written complaints (email/letter) should be provided within 48 hours of receipt of the communication. A detailed written response is to be provided to the complainant within seven calendar days for verbal and/or written complaints. Information on all complaints received during the previous 24 hours shall be forwarded to the Environmental Management Representative (EMR) each working day.
	Environmental Management
11.	**Construction Environmental Management Plan** A Construction Environmental Management Plan (CEMP) shall be prepared prior to the commencement of construction which addresses the following matters, as a minimum: a) traffic and pedestrian management (in consultation with the relevant roads authority) b) noise and vibration management c) water and soil management d) air quality management (including dust suppression) e) Aboriginal and non-Aboriginal heritage management f) biodiversity management g) storage and use of hazardous materials h) contaminated land management (including acid sulphate soils) i) weed management j) waste management

CoA	Condition

k) bushfire risk

l) environmental incident reporting and management procedures

m) non-compliance and corrective/preventative action procedures

n) details of approvals, licences and permits required to be obtained under any other legislation for the Project.

The CEMP shall:

i. comply with the Conditions of Approval, conditions of any licences, permits or other approvals issued by government authorities for the Project, all relevant legislation and regulations, and accepted best practice management

ii. comply with the relevant requirements of *Guideline for Preparation of Environmental Management Plans* (Department Infrastructure, Planning and Natural Resources, 2004)

iii. include a pre-construction environmental compliance matrix for the Project (or such stages of the Project as agreed to by the EMR) that details compliance with all relevant conditions and mitigation measures

iv. include an Environmental Policy.

In preparing the CEMP the following shall be undertaken:

1. consultation with government agencies and relevant service/utility providers (as required)
2. a copy of the CEMP submitted to the EMR for review
3. a copy of the CEMP submitted to the TfNSW DES for approval upon completion of the EMR review period
4. review and update the CEMP at regular intervals, and in response to any actions identified as part of the EMR's audit of the document
5. ensure updates to the CEMP are be made within seven days of the completion of the review or receipt of actions identified by any EMR audit of the document, and be submitted to the EMR for approval.

The CEMP must be approved by the DES prior to the commencement of construction work associated with the Project.

12. Environment Personnel

Suitably qualified and experienced environmental management personnel shall be available and be responsible for implementing the environmental objectives for the Project, including undertaking regular site inspections, preparation of environmental documentation and ensuring the Project meets the requirements of the Environmental Management System (EMS).

Details of the environmental personnel, including relevant experience, defined responsibilities and resource allocation throughout the project (including time to be spent on-site/off-site) are to be submitted for the approval of the DES, at least 21 days prior to commencement of construction of the Project (or such time as otherwise agreed by the DES).

Any adjustments to environmental resource allocations (on-site or off-site) are to be approved by the DES.

CoA	Condition
13.	**Environmental Management Representative** Prior to the commencement of construction, the DES shall appoint an EMR for the duration of the construction period for the Project. The EMR shall provide advice to the DES in relation to the environmental compliance and performance of the Project. The EMR shall have responsibility for: a) considering and advising TfNSW on matters specified in these conditions and compliance with such b) reviewing and where required by the DES, providing advice on the Project's induction and training program for all persons involved in the construction activities and monitoring implementation c) periodically auditing the Project's environmental activities to evaluate the implementation, effectiveness and level of compliance of on-site construction activities with authority approvals and licences, the CEMP and associated plans and procedures, including carrying out site inspections weekly, or as required by the DES d) reporting weekly to TfNSW, or as required by the DES e) issuing a recommendation for work to stop immediately, if in the view of the EMR circumstances so require. The stop work recommendation may be limited to specific activities if the EMR can easily identify those activities f) requiring reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts g) reviewing corrective and preventative actions to ensure the implementation of recommendations made from the audits and site inspections h) providing reports to TfNSW on matters relevant to the carrying out of the EMR role as necessary i) where required by the DES providing advice on the content and implementation of the CEMP and Environmental Controls Map (ECM) in accordance with the conditions j) reviewing and approving updates to the CEMP. The EMR shall be available during construction activities to inspect the site(s) and be present on-site as required.
14.	**Environmental Controls Map** An Environmental Controls Map (ECM) shall be prepared and implemented in accordance with TfNSW's *Guide to Environmental Controls Map* (SD-015) prior to the commencement of construction for implementation for the duration of construction. The ECM is to be endorsed by the EMR and may be prepared in stages, as set out in the CEMP. A copy of the ECM shall be submitted to the EMR for review and endorsement. The EMR is to be given a minimum period of seven days to review and endorse the ECM. Following receipt of the EMR's endorsement, the ECM shall be submitted to the ADEM for approval, at least 14 days prior to commencement of construction (or such time as is otherwise agreed by the DES). The ECM shall be prepared as a map – suitably enlarged (e.g. A3 size or larger) for mounting on the wall of a site office and included in site inductions, supported by relevant written information. Updates to the ECM shall be made within seven days of the completion of the review or receipt of actions identified by any EMR audit of the document and submitted to the EMR for approval.

CoA	Condition
	Hours of Work
15.	**Standard Construction Hours** Construction activities shall be restricted to the hours of 7:00 am to 6:00 pm (Monday to Friday); 8:00 am to 1:00 pm (Saturday) and at no time on Sundays and public holidays except for the following works which are permitted outside these standard hours: a) any works which do not cause noise emissions to be more than 5dBA higher than the rating background level (RBL) at any nearby residential property and/or other noise sensitive receivers b) out of hours work identified and assessed in the EIA or the approved Out of Hours Work Protocol (OOHWP) c) the delivery of plant, equipment and materials which is required outside these hours as requested by police or other authorities for safety reasons and with suitable notification to the community as agreed by the DES d) Emergency Work to avoid the loss of lives, property and/or to prevent environmental harm e) any works authorised under the *Environmental Planning and Assessment (COVID-19 Development – Infrastructure Construction Work Days No. 2) Order 2020* (whilst the Order is in effect) f) any other work as agreed by the DES and considered essential to the Project, or as approved by EPA (where an EPL is in effect).
16.	**High Noise Generating Activities** Rock breaking or hammering, jack hammering, pile driving, vibratory rolling, cutting of pavement, concrete or steel and any other activities which result in impulsive or tonal noise generation shall not be undertaken for more than three hours, without a minimum one hour respite period unless otherwise agreed to by the DES, or as approved by EPA (where relevant to the issuing of an EPL).
	Noise and Vibration
17.	**Construction Noise and Vibration** Construction noise and vibration mitigation measures shall be implemented through the CEMP, in accordance with TfNSW's *Construction Noise and Vibration Strategy* (ST-157) and the EPA's *Interim Construction Noise Guideline* (Department of Environment and Climate Change, 2009). The mitigation measures shall include, but not limited to: a) details of construction activities and an indicative schedule for construction works b) identification of construction activities that have the potential to generate noise and/or vibration impacts on surrounding land uses, particularly sensitive noise receivers c) detail what reasonable and feasible actions and measures shall be implemented to minimise noise impacts (including those identified in the EIA) d) procedures for notifying sensitive receivers of construction activities that are likely to affect their noise and vibration amenity, as well as procedures for dealing with and responding to noise and vibration complaints e) an Out of Hours Work Protocol (OOHWP) for the assessment, management and approval of works outside the standard construction hours identified in Condition 13 of this approval, including a risk assessment process which deems the out of hours activities to be of low, medium or high environmental risk, is to be developed. All out of hours works are subject to approval by the EMR and/or DES or as approved by EPA (where relevant to the issuing of an EPL). The OOHWP should be consistent with the TfNSW *Construction Noise and Vibration Strategy* (ST-157)

CoA	Condition
	f) a description of how the effectiveness of actions and measures shall be monitored during the proposed works, identification of the frequency of monitoring, the locations at which monitoring shall take place, recording and reporting of monitoring results and if any exceedance is detected, the manner in which any non-compliance shall be rectified.
18.	**Vibration Criteria** Vibration (other than from blasting) resulting from construction and received at any structure outside of the Project shall be limited to: a) for structural damage vibration - German Standard *DIN 4150: Part 3 – 1999: Structural Vibration in Buildings: Effects on Structures* b) for human exposure to vibration – the acceptable vibration values set out in the *Environmental Noise Management Assessing Vibration: A Technical Guideline* (Department of Environment and Conservation, 2006) which includes British Standard *BS 7385-2:1993 Guide to Evaluation of Human Exposure to Vibration in Buildings (1 Hz to 80 Hz).* These limits apply unless otherwise approved by the DES through the CEMP.
19.	**Piling** Wherever practical, piling activities shall be completed using non-percussive piles. If percussive piles are proposed to be used, approval of the DES shall be obtained prior to commencement of piling activities.
20.	**Operational Noise and Vibration** Prior to commencement of construction (or as otherwise agreed with the DES), an operational noise and vibration management plan (ONVMP) shall be prepared to confirm the final mitigation measures for operational noise and vibration that would be implemented. The ONVMP shall be prepared by a suitably qualified and experienced Acoustic Advisor, in consultation with the relevant stakeholders. The ONVMP shall: a) confirm that the findings of the EIA noise and vibration assessment are still valid, based on the detailed design and/or operations plan, and update the assessment as required b) examine all reasonable and feasible noise and vibration mitigation measures consistent with the *Noise Policy for Industry* (EPA, 2017) and *NSW Road Noise Policy* (DECCW, 2011) c) identify specific physical and other mitigation measures for controlling noise and vibration at the source and at the receiver (if relevant) including location, type and timing of implementation of the proposed operational noise and vibration mitigation measures d) identify how the detailed design process has incorporated measures and/or design solutions to minimise the occurrence of operational noise from typical use of the car park such as wheel squeal e) seek feedback from directly affected receivers on the final mitigation measures proposed in the review. A copy of the ONVMP shall be submitted to the EMR for review and endorsement. The EMR is to be given a minimum period of seven days to review and endorse the ONVMP. Following receipt of the EMR's endorsement, the ONVMP shall be submitted to the DES for approval, at least one (1) month prior to commencement of construction of the infrastructure that will generate the operational noise or the construction of physical noise mitigation structures (or such time as is otherwise agreed by the DES). The approved physical mitigation measures are to be installed prior to the commencement of operations, unless otherwise agreed by the DES.

CoA	Condition
21.	In order to validate the predicted noise levels identified in the ONVMP, monitoring shall be undertaken within three (3) months of commencement of operation. The noise and vibration monitoring shall be undertaken to confirm compliance with the predicted noise and vibration levels, or as modified by the reasonable and feasible review. Should the results of monitoring identify exceedances of the predicted noise and vibration levels, additional reasonable and feasible mitigation measures would be implemented in consultation with the affected property owners.
	Contamination and Hazardous Materials
22.	**Unidentified Contamination (Other Than Asbestos)** If previously unidentified contamination (excluding asbestos) is discovered during construction, work in the affected area must cease immediately, and an investigation must be undertaken and report prepared to determine the nature, extent and degree of any contamination. The level of reporting must be appropriate for the identified contamination in accordance with relevant EPA guidelines, including the *Guidelines for Consultants Reporting on Contaminated Sites* (Office of Environment and Heritage, 2011). A copy of any contamination report shall be submitted to the EMR for review. The EMR is to be given a minimum period of seven days to review. A revised copy of the report shall be submitted to the ADEM for consideration upon completion of the EMR review period. The ADEM shall determine whether consultation with the relevant council and/or EPA is required prior to continuation of construction works within the affected area. ***Note:*** *In circumstances where both previously unidentified asbestos contamination and other contamination are discovered within a common area, nothing in these conditions shall prevent the preparation of a single investigation report to satisfy the requirements of both Condition 22 and Condition 23.*
23.	**Asbestos Management** If previously unidentified asbestos contamination is discovered during construction, work in the affected area must cease immediately, and an investigation must be undertaken and a report prepared to determine the nature, extent and degree of the asbestos contamination. The level of reporting must be appropriate for the identified contamination in accordance with relevant EPA, Safe Work Australia and SafeWork NSW guidelines and include the proposed methodology for the remediation of the asbestos contamination. Remediation activities must not take place until receipt of the investigation report. Works may only recommence upon receipt of a validation report from a suitably qualified contamination specialist that the remediation activities have been undertaken in accordance with the investigation report and remediation methodology. ***Note:*** *In circumstances where both previously unidentified asbestos contamination and other contamination are discovered within a common area, nothing in these conditions shall prevent the preparation of a single investigation report to satisfy the requirements of both Condition 22 and Condition 23.*

CoA	Condition
24.	**Storage and Use of Hazardous Materials** Construction hazard and risk issues associated with the use and storage of hazardous materials shall be addressed through risk management measures, which shall be developed prior to construction as part of the overall CEMP, in accordance with relevant EPA guidelines, TfNSW's *Chemical Storage and Spill Response Guidelines* (SD-066) and Australian and ISO standards. These measures shall include: a) the storage of hazardous materials, and refuelling/maintenance of construction plant and equipment are to be undertaken in clearly marked designated areas designed to contain spills and leaks b) spill kits, appropriate for the type and volume of hazardous materials stored or in use, to be readily available and accessible to construction workers. Kits are to be kept at hazardous materials storage locations, in site compounds and on specific construction vehicles. Where a spill to a watercourse is identified as a risk, spill kits are to be kept in close proximity to potential discharge points in support of preventative controls c) all hazardous materials spills and leaks to be reported to site managers and actions to be immediately taken to remedy spills and leaks d) training in the use of spill kits to be given to all personnel involved in the storage, distribution or use of hazardous materials.
	Erosion and Sediment Control
25.	**Erosion and Sediment Control** Soil and water management measures shall be prepared, implemented and maintained as part of the CEMP for the mitigation of water quality impacts during construction of the Project. The management measures shall be prepared in accordance with *Managing Urban Stormwater: Soils and Construction Volume 1 4th Edition* (Landcom, 2004).
	Heritage Management
26.	**Aboriginal and Non-Aboriginal Heritage** If previously unidentified Aboriginal or non-Aboriginal heritage/archaeological items are uncovered during construction works, the procedures contained in the TfNSW *Unexpected Heritage Finds Guideline* (SD-115) shall be followed and all works in the vicinity of the find shall cease. The EMR shall be immediately notified to co-ordinate a response, which may include seeking appropriate advice from a suitably qualified and experienced Heritage Advisor (in consultation with Heritage NSW). Works in the vicinity of the find shall not re-commence until clearance has been received from TfNSW and/or the Heritage Advisor.
	Flora and Fauna
27.	**Removal of Trees or Vegetation** Separate approval, in accordance with TfNSW's *Removal or Trimming of Vegetation Application* (FT-078), is required for the trimming, cutting, pruning or removal of trees or vegetation where the impact has not already been identified in the EIA for the Project. The trimming, cutting, pruning or removal of trees or vegetation shall be undertaken in accordance with the conditions of that approval.
28.	**Replanting Program** All cleared vegetation shall be offset in accordance with TfNSW's *Vegetation Offset Guide* (ST-149). All vegetation planted on-site is to consist of locally endemic native species, unless otherwise agreed by the DES, following consultation with the relevant council, where relevant, and/or the owner of the land upon which the vegetation is to be planted.

CoA	Condition
	Lighting
29.	**Lighting Scheme** A lighting scheme for the construction and operation of the Project is to be developed by a suitably qualified lighting designer and prepared in accordance with *AS 1158 Lighting for Roads and Public Spaces* and *AS 4282 Control of the Obtrusive Effects of Outdoor Lighting*. The lighting scheme shall address the following as relevant: a) consideration of lighting demands of different areas b) strategic placement of lighting fixtures to maximise ground coverage c) use of LED lighting d) minimising light spill by directing lighting into the car park e) control systems for lighting that dim or switch-off lights settings according to the amount of daylight the zone is receiving f) motion sensors to control low traffic areas g) avoid car headlights being directed into nearby residents h) allowing the lighting system to use low light or switch off light settings while meeting relevant lighting Standards requirements, and i) ensuring security and warning lighting is not directed at neighbouring properties. The proposed lighting scheme shall be submitted to TfNSW's technical (design) team for review. Any comments are to be adequately addressed.
	Property
30.	**Property Condition Surveys** Subject to landowner agreement, property condition surveys shall be completed prior to piling, excavation or bulk fill or any vibratory impact works including jack hammering and compaction (Designated Works) in the vicinity of the following buildings/structures: a) all buildings/structures/roads within a plan distance of 50 metres from the edge of the Designated Works b) all heritage listed buildings and other sensitive structures within 150 metres from the edge of the Designated Works. Property condition surveys need not be undertaken if a risk assessment indicates that selected buildings/structures/roads identified in (a) and (b) will not be affected as determined by a qualified geotechnical and construction engineering expert with appropriate registration on the National Professional Engineers Register prior to commencement of Designated Works. Selected potentially sensitive buildings and/or structures shall first be surveyed prior to the commencement of the Designated Works and again immediately upon completion of the Designated Works. All owners of assets to be surveyed, as defined above, are to be advised (at least 14 days prior to the first survey) of the scope and methodology of the survey, and the process for making a claim regarding property damage. A copy of the survey(s) shall be given to each affected owner. A register of all properties surveyed shall be maintained. Any damage to buildings, structures, lawns, trees, sheds, gardens, etc. as a result of construction activity direct and indirect (i.e. including vibration and groundwater changes) shall be rectified at no cost to the owner(s).

CoA	Condition
	Sustainability
31.	**Sustainability Officer** A suitably qualified and experienced Sustainability Officer shall be appointed who is responsible for implementing the sustainability objectives for the Project. Details of the Sustainability Officer including defined responsibilities, duration and resource allocation throughout the appointment are to be submitted to the satisfaction of the DES prior to the preparation of the Sustainability Management Plan. The responsibilities of the Sustainability Officer will not be shared with other positions on the Project unless approved by the DES.
32.	**Sustainability Management Plan** A Sustainability Management Plan (SMP) which details the approach to managing sustainability requirements and opportunities during design and construction shall be prepared. The SMP shall include the following as a minimum: a) a completed electronic checklist demonstrating compliance with the *TfNSW Sustainable Design Guidelines Version 4.0 (ST-114)* b) a statement outlining the Construction Contactor's own corporate sustainability policies, obligations, goals, targets and commitments c) a description of the processes and methodologies for encouraging and identifying innovative sustainability outcomes on the Project, and the areas targeted for innovative sustainable solutions to be explored and/or implemented on the Project d) the approach to the identification of opportunities to reduce carbon emissions, energy use and embodied lifecycle impacts of the Project. This should include a summary of initiatives proposed for implementation to meet energy and carbon management objectives and targets e) the approach to sustainable procurement including how procurement processes have taken in to account the principles of *ISO 20400: 2017 – Sustainable Procurement* in the selection of all materials, products and services f) a description of the processes, standards and procedures for undertaking climate change risk assessments and strategies for mitigation of risks associated with climate change and extreme weather events. A copy of the SMP shall be submitted to the DES for review within 30 days of the date of contract award, and approval within 60 days (or such time as is otherwise agreed by the DES).
33.	**Sustainable Design Guideline V4** The project shall comply with the requirements of the TfNSW Sustainable Design Guidelines Version 4.0 (ST-114) ratings methodologies, including achieving a final Sustainable Design Guidelines Version 4.0 (ST-114) Silver rating to be applied throughout the design and construction stages of the project.

CoA	Condition
	Traffic, Transport and Access
34.	**Traffic Management Plan** A construction Traffic Management Plan (TMP) shall be prepared as part of the CEMP which addresses, as a minimum, the following matters: a) ensuring adequate road signage at construction work sites to inform motorists and pedestrians of the work site ahead to ensure that the risk of road accidents and disruption to surrounding land uses is minimised b) maximising safety and accessibility for pedestrians and cyclists c) ensuring adequate sight lines to allow for safe entry and exit from the site d) ensuring access to railway stations, businesses, entertainment premises and residential properties (unless affected property owners have been consulted and appropriate alternative arrangements made) e) managing impacts and changes to on and off street parking and requirements for any temporary replacement provision f) parking locations for construction workers away from stations and busy residential areas and details of how this will be monitored for compliance g) routes to be used by heavy construction-related vehicles to minimise impacts on sensitive land uses and businesses g) details for relocating kiss-and-ride, taxi ranks and rail replacement bus stops if required, including appropriate signage to direct customers, in consultation with the relevant bus operator. Particular provisions should also be considered for the accessibility impaired h) measures to manage traffic flows around the area affected by the Project, including as required regulatory and direction signposting, line marking and variable message signs and all other traffic control devices necessary for the implementation of the TMP. Consultation with the relevant roads authority must be undertaken during the preparation of the TMP, as required. The performance of all Project traffic arrangements must be monitored during construction.
35.	**Road Condition Reports** Prior to construction commencement, road condition surveys and reports on the condition of roads and footpaths to be affected by construction shall be prepared. Any damage resulting from the construction of the Project, aside from that resulting from normal wear and tear, shall be repaired at the Proponent's expense.
36.	**Road Safety Audit** A Road Safety Audit shall be undertaken as part of the detailed design process and on completion of construction. The Road Safety Audit shall include but not be limited to detailed assessment of sight distances for vehicles accessing and entering the car park and mitigation measures proposed. The Road Safety Audit is to be submitted to and accepted by TfNSW. The findings of the Road Safety Audit shall be provided to Georges River Council for information.

CoA	Condition
	Urban Design and Landscaping
37.	**Urban Design and Landscaping Plan** The following mitigation measures shall be implemented to reduce the visual impacts of the Proposal: An Urban Design Plan and Landscaping Plan is to be submitted to TfNSW and endorsed by the Place and Urban Design team. The Urban Design Plan is to address the fundamental design principles as outlined in 'Around the Tracks' – urban design for heavy and light rail, TfNSW, Interim 2016. The Urban Design Plan and Landscaping Plan shall: a) Demonstrate a robust understanding of the site through a comprehensive site analysis to inform the design direction, demonstrate connectivity with street networks, transport modes, active transport options, and pedestrian distances b) Identify opportunities and challenges c) Establish site specific principles to guide and test design options d) Demonstrate how the preferred design option responds to the design principles established in 'Around the Tracks', including consideration of Crime Prevention through Environmental Design Principles The Urban Design Plan and Landscaping Plan is to include the Public Domain Plan for the chosen option and will provide analysis of the: a) Landscape design approach including design of pedestrian and bicycle pathways, street furniture, interchange facilities, new planting and opportunities for public art b) Materials Schedule including materials and finishes for proposed built works, colour schemes, paving and lighting types for public domain, fencing and landscaping c) An Artist's Impression or Photomontage to communicate the proposed changes to the precinct The following design guidelines are available to assist and inform the Urban Design Plan and Landscaping Plan for the Proposal: a) *TAP Urban Design Plan, Guidelines*, TfNSW, Draft 2018 b) *Commuter Car Parks, Urban Design Guidelines*, TfNSW, Interim 2017 c) *Managing Heritage Issues in Rail Projects Guidelines*, TfNSW, Interim 2016 d) *Creativity Guidelines for Transport Systems*, TfNSW, Interim 2016 e) *Water Sensitive Urban Design Guidelines for TfNSW Projects*, TfNSW 2016 Endorsement of the Urban Design Plan and Landscaping Plan will demonstrate compliance with the Conditions of Approval in the Review of Environmental Factors (REF) Determination Report. The Urban Design Plan and Landscaping Plan shall be: I. Prepared prior to detailed design and finalised II. Prepared in consultation with Local Council and relevant stakeholders III. Prepared by a registered Architect and/or Landscape Architect

CoA	Condition
	Hydrology
38.	A detailed Flood Impact Assessment (FIA) is to be developed prior to the finalisation of the detailed design process in accordance with the: a) NSW Government's Floodplain Development Manual (Department of Infrastructure, Planning and Natural Resources, 2005), and b) Relevant Australian Standards including the Australian Building Codes Board Standard Construction of Buildings in Flood Hazard Areas 2012.3 to confirm the potential changes to flooding risks for areas within the Project site, and surrounding properties which have potential to be affected by changes in flood levels and behaviour as a result of the Project. The FIA is to include hydrological modelling of potential changes in flood risk (inclusive of flood levels and flood behaviour), with the objective of ensuring that the Project (as far as practicable): a) avoids any increase in existing flood impacts to surrounding areas/properties, and b) minimises flood impacts/risks within the car park. If the hydrological modelling identifies that inundation of the car park is predicted to occur (for events up to and including the 1% AEP), an Operational Flood Management Plan (OFMP) shall be prepared which addresses the following: a) Procedures and measures to be implemented to appropriately manage risks to human health and property, to ensure the safety of all car park users. This may include, but not be limited to: i. closure of the car park and/or access restriction(s) during flood events, ii. provision of signage at suitable locations to ensure car park users aware of the potential flood risk) iii. evacuation procedures and emergency access routes to be followed during flood events. The FIA and OFMP (if the latter is required), are to be prepared in consultation with Sydney Trains and Georges River Council, and submitted to TfNSW for acceptance prior to the finalisation of the detailed design.

END OF CONDITIONS