



## MEMO

**TO:** Jonathan Seward – RAS NSW  
**FROM:** Graeme Steverson - WSP  
**SUBJECT:** Parramatta Light Rail Stage 2 EIS – Traffic and Transport Review  
**OUR REF:** PSxxxxxx-PAM-MEM-001 RevA  
**DATE:** 13 December 2022

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## 1. CONTEXT

WSP was commissioned by the Royal Agricultural Society of NSW (RAS) to provide a response to submissions for the Environmental Impact Assessment (EIS) for the Parramatta Light Rail Stage 2 which is proposed to serve the Sydney Showground. The responses in this memo directly relate to specific questions regarding traffic and transport issues.

This memo documents the responses to the following submissions received:

- Assessment methodology
- Traffic network performance
- Construction impacts
- Cumulative impacts
- Detailed summary of comments

## 2. ASSESSMENT METHODOLOGY

The following comments relate directly to aspects of the assessment methodology by exception:

- It is unclear if the Sydney Showground Master Plan been included in:
  - Base land use / demographics (Figure 2.2 Transport modelling overview)
- Reported intersection performance is the same for all transport modes including bus
  - It is not clear if this includes existing bus priority at signalised intersections .e.g. Holker Busway
- Section 3.8.2 – the largest major events accommodate 114,000 people for RES Good Friday 2018 not the 60,000 as stated
  - There were 6 days in 2018 that exceeded 60,000 at Sydney Showground
  - It does not reference the 238 events and 1.8 million visitors to the Sydney Showground and Giants Stadium in 2018
- The use of 2016 event data is questioned when base information for other studies for the project used the 2017, 2018 event data
- There is a complete omission of any specific event information for the Sydney Showground or Giants Stadium despite the fact it hosts two national sporting teams GWS Giants AFL and Sydney Thunder T20 Big Bash.

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- The level of information around event traffic management in the precinct is considered deficient considering the Sydney Showground and Giants Stadium’s status as major event venues in Greater Sydney. The information presented should be informed by previous studies for Parramatta Light Rail Stage 2 and validated by the RAS for their currency.
- Section 3.9 incorrectly states that New England Avenue is used to access places of employment when it is an internal road with operational gate access to the local road network.
- Table 4.1 does not describe the extent of the Showground Road closure in details, i.e. no intersecting street references
- Table 4.2 outlines the potential future stops including that serving the Sydney Showground but does not describe the trigger for an investment decision to build the stop
- Table 4.4 incorrectly states the closure of Showground Road between Grand Parade and Murray Rose Avenue
  - Should be Showground Road between Murray Rose Avenue and Dawn Fraser Avenue

## 2.1 TRAFFIC NETWORK PERFORMANCE

The traffic modelling for the project has assumed the two following local network changes in the vicinity of the Sydney Showground which have not been developed in detail with the RAS:

- extension of Murray Rose Avenue from Showground Road to Olympic Boulevard
- pedestrianising Dawn Fraser Avenue Between Australia Avenue and Olympic Boulevard

Both of the local road options which are linked operationally have potential operational impacts for the RAS and potential traffic re-routing to:

- Sydney Showground Precinct
- Pedestrian priority zone around Accor Stadium and Olympic Boulevard
- Parkview Precinct – it shares the only signalised intersection out of the precinct with Herb Elliott Avenue / Australia Avenue (Central Precinct)

From the assessment, it currently appears that the traffic modelling results from the assessment of existing conditions of Dawn Fraser Avenue are justifying the proposals to close it to traffic when the modelling results of Level of Service F are questioned as they are not validated with what is operating on the ground “without project”.

Two intersections on corridor within Sydney Olympic Park were identified as operating at worse than Level of Service D being:

- Hill Road / Holker Street (LoS E in the morning and afternoon)
- Park Street/ Dawn Fraser Avenue (LoS E in the afternoon).

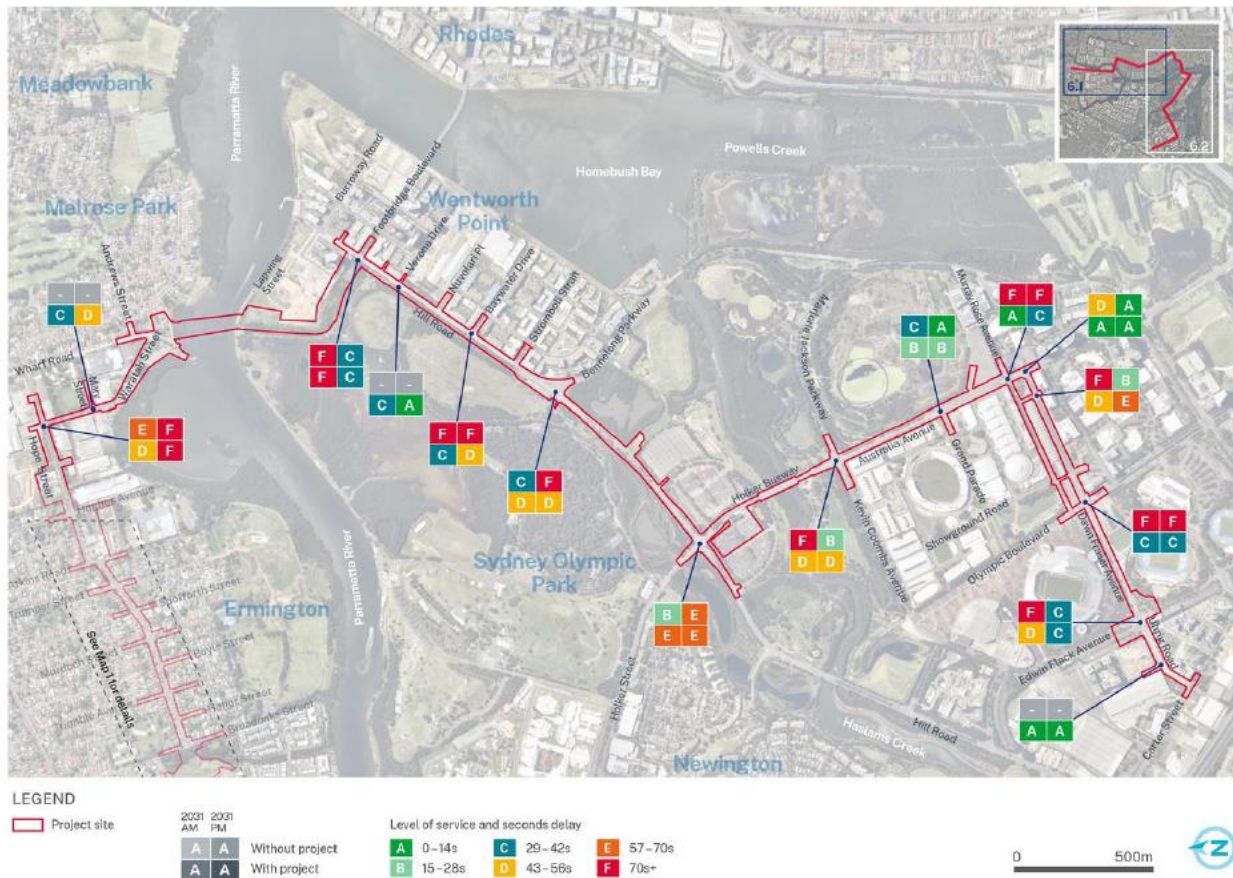


Figure 6.2 2031 Intersection Level of Service within the project site in Melrose Park, Wentworth Point and Sydney Olympic Park

## Figure 2.1 On corridor traffic performance from EIS

In terms of the modelling results outlined in the EIS the following comments are made:

- Holker Busway / Kevin Coombs Avenue
  - It is unclear why the model assess this as operating at LoS F in the AM without project in 2031. This intersection is very lightly trafficked due to one leg being a restricted busway which only carries buses during major events. Very little traffic uses the remaining three legs of this intersection. There is no explanation for the sudden degradation in intersection performance from 2019 to 2031 without project. Adjacent increases in traffic from new development within the precinct is unlikely to use this intersection. The model appears to over reporting the poor performance of this intersection.
- Park Street / Dawn Fraser Avenue
  - It is unclear why the model assess this as operating at LoS F in the AM without project in 2031. This intersection is predominantly used by buses and taxis and local traffic on Dawn Fraser Avenue and Murray Rose Avenue. There is no explanation for the sudden degradation in intersection performance from 2019 to 2031 without project. Adjacent increases in traffic from new development within the precinct is unlikely to use this intersection. The model appears to over reporting the poor performance of this intersection.

Two intersections off corridor within Sydney Olympic Park were identified as operating at worse than Level of Service D being:

- Hill Road / Parramatta Road (LoS E in the morning and LoS F in the afternoon)
- Australia Avenue / Dawn Fraser Avenue (LoS F in the morning and afternoon).



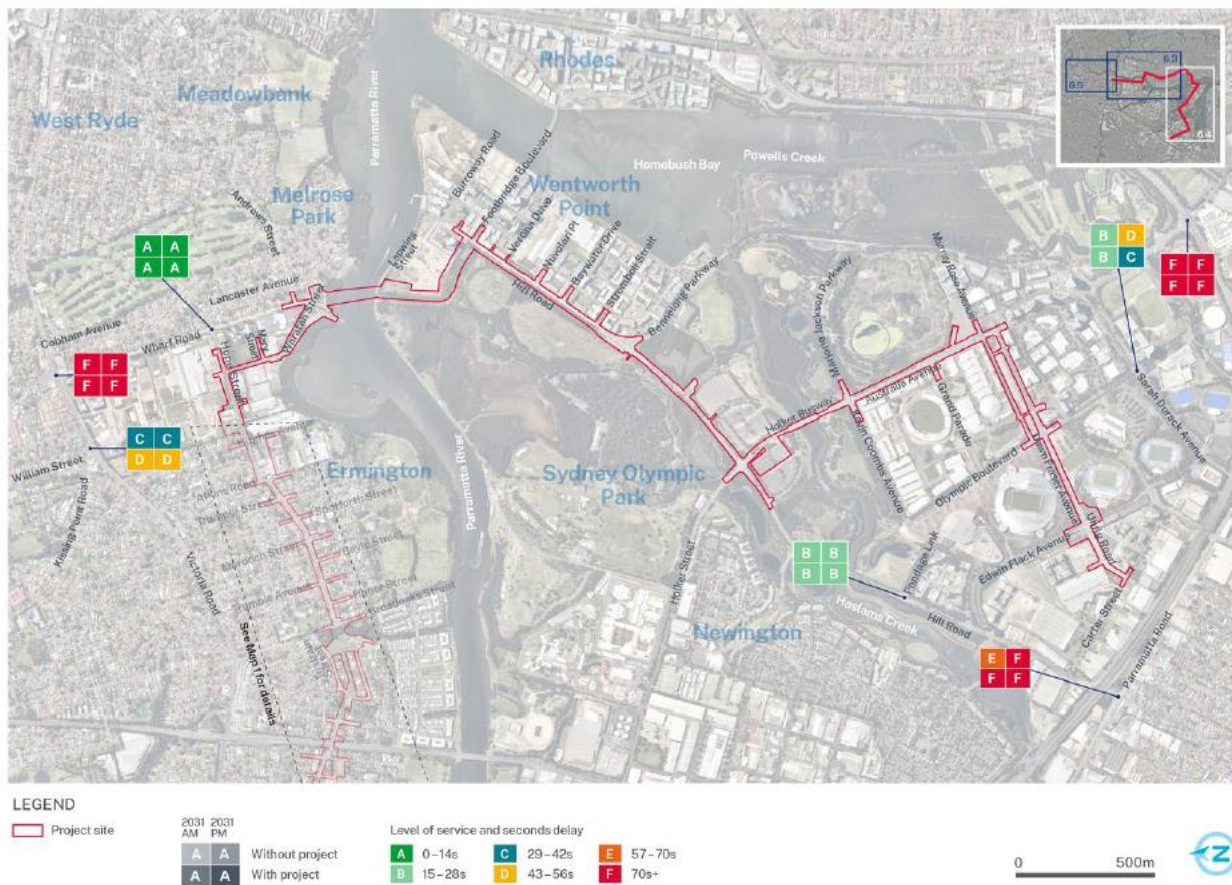


Figure 6.4 2031 Intersection Level of Service adjacent to the project site in Melrose Park, Wentworth Point and Sydney Olympic Park

## Figure 2.2 On corridor traffic performance from EIS from EIS

- Hill Road / Parramatta Road
  - It is unclear if the traffic model has considered the Hill Road widening project by TfNSW in this assessment.
- Australia Avenue / Dawn Fraser Avenue
  - It is unclear if the traffic model has considered the Homebush Bay Drive upgrade project by TfNSW in this assessment. This \$80M project will increase the performance of this intersection considerably whilst potentially negatively impacting downstream intersections such as Australia Avenue / Sarah Durack Avenue through induced demands.

## 2.2 RECOMENDATION

It appears that the traffic model is over estimating the use of Dawn Fraser Avenue as a through traffic movement corridor in the “without project” scenario. There is no explanation for the significant degradation in traffic performance between 2019 and 2031 on the modelled intersections. It is also not validated against existing traffic operations which are more like LoS A or B.

To have certainty that all options for local road network changes have been explored with the RAS and SOPA before relying on this for definitive traffic modelling and design, further consultation and workshopping of the options is required between the PLR2 project team, RAS and SOPA to gain endorsement.

The off corridor assessment does not appear to consider parallel TfNSW projects such as Hill Road widening or the Homebush Bay Drive intersection upgrade project. The future performance of these TfNSW projects should be incorporated into the modelling to reflect the benefits of the upgrades and justification of significant levels of investment by NSW government.

### 3. CONSTRUCTION IMPACTS

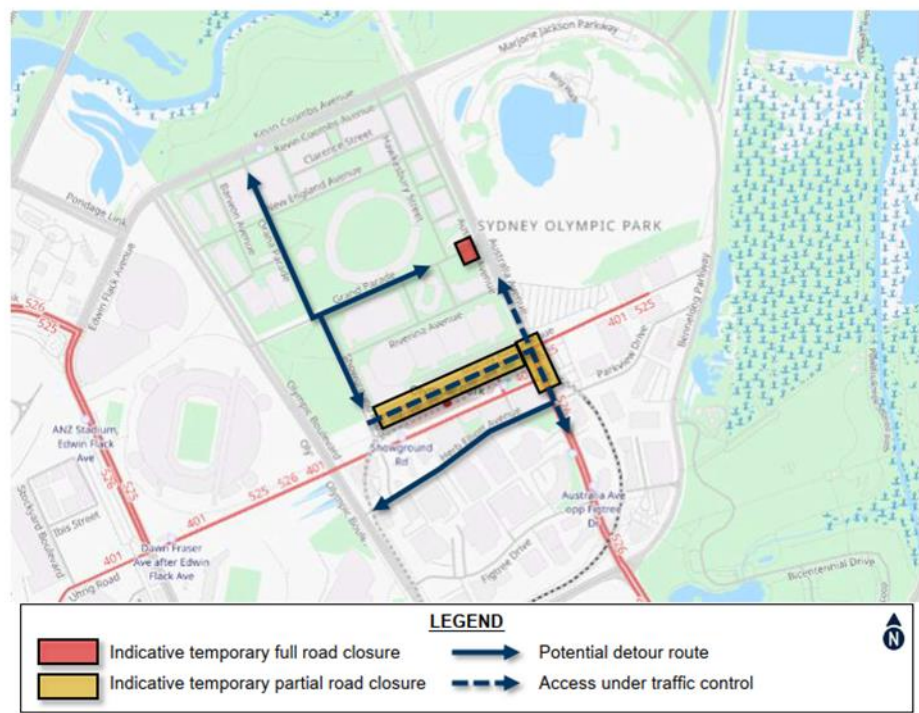
#### 3.1 SYDNEY SHOWGROUND

The use of roads within the Sydney Showground as potential detour routes are not considered acceptable due to the ownership, function, design and impact on event operations at Giants Stadium and the Sydney Showground.

The temporary full closure of Grand Parade at Australia Avenue will have significant impacts on staging events at all venues within the Sydney Showground over the construction period.

The propose full closure of Grand Parade and the use of Orana Parade as a detour route is highly inappropriate and demonstrates a lack of site and event familiarisation by the consultant. The impact on Grand Parade is described as “generally low”. Orana Parade is described as having sufficient capacity despite being and internal venue roadway with limited signage and line marking and raised kerbs to operate as a local road. It is unclear why Olympic Boulevard has not been suggested. Grand Parade has been described as a detour route despite it has a full closure proposed. It is also described as a detour route for Dawn Fraser Avenue.

There is no mitigation measures to deal with event operations coinciding with the construction period which is a significant omission.



Base map obtained from OpenStreetMap © OpenStreetMap contributors  
 Figure 5.11 Road closures and detour routes – Australia Avenue

Figure 3.1 Proposed road closure of Murray Rose Avenue from EIS





Photo 3.1 Orana Parade looking north adjacent to Giants Stadium entry forecourt within Sydney Showground venue



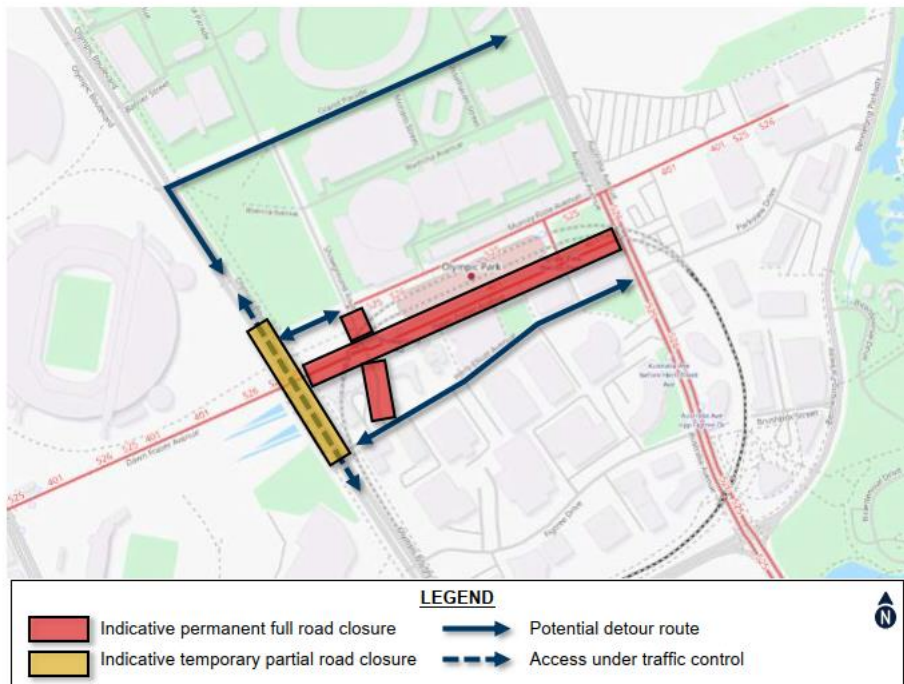
*Photo 3.2 Orana Parade looking north adjacent to animal pavilions within Sydney Showground venue*





*Photo 3.3 Murray Rose Avenue looking east towards Australia Avenue including access to rear lane*





Base map obtained from OpenStreetMap © OpenStreetMap contributors

Figure 5.12 Road closures and detour routes – Dawn Fraser Avenue

Figure 3.2 Proposed road closure of Dawn Fraser Avenue and Olympic Boulevard from EIS



*Photo 3.4 Proposed Murray Rose Avenue extension to Olympic Boulevard at Showground Road looking west*

Alternate bus route diversions have been proposed for Grand Parade which is considered inappropriate as:

- The street does not have raised kerbs
- The street does not have bus stop infrastructure
- There is a proposed road closure at Australia Avenue
- It is closed for (many) events including cricket and AFL at the stadium located on this road



### 5.5.2 Routes 525, 526, 533 and N81

Existing bus stops located on Park Street, adjacent to Olympic Park Station, would be relocated to Murray Rose Avenue (northbound) with buses likely to be rerouted as shown in Figure 5.16.



Base map obtained from OpenStreetMap © OpenStreetMap contributors

Figure 5.16 Temporary bus route changes – Sydney Olympic Park

## 3.2 AUSTRALIA AVENUE

If demonstrated to be the optimal solution, the proposed extension of Murray Rose Avenue East between Showground Road and Olympic Boulevard should be part of the first stage of construction on the project to relieve the loss of the proposed pedestrianised section of Dawn Fraser Avenue from the local road network. This will be also important to relieve Herb Elliott Avenue as the parallel east-west road.

## 3.3 DAWN FRASER AVENUE

It is unclear why there is a permanent full road closure of Showground Road between Herb Elliott and Dawn Fraser Avenue. Showground Road will only be closed at Dawn Fraser Avenue.

## 3.4 RECOMMENDATION

Transport for NSW should work closely with RAS and SOPA to stage the closures of key parts of the local road network to ensure they do not impact the staging of major events including impacting the Aquatic Bus Terminal turning circle at the intersection of Olympic Boulevard and Herb Elliott Avenue.

The construction of Murray Rose Avenue West extension needs to be undertaken before the closure of Dawn Fraser Avenue between Australia Avenue and Olympic Boulevard to ensure local road and cycling access east-west is maintained throughout construction of PLR2.

TfNSW to work closely with RAS and SOPA on proposed diversion routes for public transport, cycling and traffic.

## 4. CUMULATIVE IMPACTS

### 4.1 SYDNEY METRO WEST

Sydney Metro West Integrated station development has not been identified in the document as a cumulative impact as it is away from the corridor as outlined in Table 7.1. The EIS states that

*“Minor cumulative impacts may arise due to increased activity at Herb Elliot Avenue following closure of Dawn Fraser Avenue for Parramatta Light Rail Stage 2. However, the proposed extension of Murray Rose Avenue to connect to Olympic Boulevard would increase the capacity of the network for east-west movements, thereby offsetting the loss of capacity at Dawn Fraser Avenue”.*

This solution thus relies on the same access route to the Sydney Metro site and also relies on an unbuilt road (Murray Rose West extension) to relieve Dawn Fraser Avenue. This is solution not considered acceptable for both the operation of the Town Centre, events and the construction of Sydney Metro West. This proposed new section would be regularly closed to create the pedestrian priority precinct around Olympic Boulevard for stadium events and SRES.

### 4.2 HOMEBUSH BAY DRIVE UPGRADE

The proposed Homebush Bay Drive upgrade is an \$80M road project that is expected to take 18 months to construct. This major road project may influence PLR2 construction and should be considered as a project which may create a cumulative impact.

### 4.3 HILL ROAD WIDENING

The proposed Hill Road widening is an ongoing TfNSW project that is required to support the development of the Carter Street, Wentworth Point and Sydney Olympic Park precincts. This major road project may influence PLR2 construction and should be considered as a project which may create a cumulative impact.

### 4.4 SILVERWATER ROAD / HOLKER STREET UPGRADE

The proposed upgrades to the intersection of Silverwater Road and Holker Street is an ongoing TfNSW project that is required to support the development of the Wentworth Point and Sydney Olympic Park precincts. This road project may influence PLR2 construction and should be considered as a project which may create a cumulative impact.

### 4.5 RECOMMENDATION

Transport for NSW should manage all of their planned and proposed projects on the Olympic Peninsula in a coordinated way that ensures cumulative impacts are reduced and timed to not undermine the staging of major events in the precinct over the next 8 years to 2030.



## 5. DETAILED SUMMARY OF COMMENTS

Below is a list of detailed comments following a review of the Parramatta Light Rail Stage 2 Environmental Impact Statement Chapter 9 Transport and Traffic and the associated Technical Paper 2 Transport and Traffic which provides more detail.

**Table 5.1** *Parramatta Light Rail Stage 2 Environmental Impact Statement – Traffic and Transport Review comments*

DOCUMENT TITLE	SECTION	PAGE	COMMENT	ACTION
Chapter 9 Transport and Traffic	9.1.2 (Figure 2.2 Transport modelling overview		It is unclear if the Sydney Showground Master Plan, SOP Master Plan 2030 Interim Review for Metro development been included.	TfNSW to confirm what developments and master plans in SOP have been used for demand modelling for PLR2
Chapter 9 Transport and Traffic	9.2.1 Table 9.2	9.7	It is unclear why Old Hill Link, Edwin Flack Avenue, Sarah Durack Avenue, Australia Avenue and Birnie Avenue have not been nominated as heavy vehicle routes as they service event venues including the Sydney Showground and support the Carter Street industrial precinct.	TfNSW to confirm with TfNSW Freight Division on appropriate heavy vehicle routes beyond classified B Double routes.
Chapter 9 Transport and Traffic	9.2.1 Table 9.3	9.8	There is no acknowledgement that the 9% heavy vehicles using Dawn Fraser Avenue are buses which would be removed once the light rail project is operational.	TfNSW to confirm with TfNSW Freight Division that Dawn Fraser Avenue is not a heavy vehicle route for freight.
Chapter 9 Transport and Traffic	9.2.2	9.9	Reported intersection performance is the same for all transport modes including bus. It is not clear if this includes existing bus priority at signalised intersections .e.g. Holker Busway	TfNSW to confirm delays to buses using Holker Busway, especially during special events including the Sydney Royal Easter Show (SRES).
Chapter 9 Transport and Traffic	9.2.5	9.12	Description of which special event bus routes operate from the Plaza and Aquatic Bus terminals is important. The Plaza Bus terminal would need to be relocated to accommodate the Carnival site on Olympic Boulevard North and the Aquatic Bus terminal requires relocation for the Sydney Metro station event loading and is currently impacted by the proposed construction zone for PLR2.	TfNSW to confirm specific impacts on both major event bus terminals as a result of the PLR2 project and the relocation of the Carnival Site.

DOCUMENT TITLE	SECTION	PAGE	COMMENT	ACTION
Chapter 9 Transport and Traffic	9.3.3	9.17	The proposed redirection of these services during construction will not always be possible due to road closures associated with events. The identification of Orana Parade as a possible route is flawed. For the intents and purposes of the EIS this is not a public road, cuts directly through the Showground site, is subject to closure for events and is not suitable for the proposed purposes being tantamount to a single lane track with no kerbs, gutters or line marking. In addition it is the responsibility of the RAS, under the terms of its Lease with SOPA to maintain this accessway, however this could not be reasonably expected if it were to be used as a redirected Bus Route.	The proponent should consult with RAS and SOPA to be able to establish a series of alternate routes that could be employed to be compatible with the various road closures.
Chapter 9 Transport and Traffic	9.3.6	Table 9.5	Excludes space required for SRES parking for construction compound in P5a car park	TfNSW to resolve with RAS the impacts of loss of space in the P5a Car Park during SRES for a construction compound.
Chapter 9 Transport and Traffic	9.3.6	Table 9.5	The most vital complete omission from the EIS is in relation to the NSW Royal Agricultural Society's rights under the terms of our Lease to Government (SOPA) to occupy part of Australia Avenue and P6a for a period of up to 40 days annually	TfNSW to resolve with RAS and SOPA the impacts of loss of revenue and space for the Sydney Royal Easter Show Carnival for a construction compound.
Chapter 9 Transport and Traffic	9.5.1	9.33	The works zone boundary for the Olympic Boulevard and Dawn Fraser Avenue stretches to the intersection of Olympic Boulevard and Herb Elliott Avenue intersection which would impact the Aquatic Bus terminal during SRES and access to the Sydney Metro construction site.	TfNSW to resolve with SOPA the extent of construction zones on Olympic Boulevard to ensure construction access to Sydney metro site and operation of Aquatic Bus Terminal is not compromised.
Technical Paper 2 Transport and Traffic	1.1	1	It is unclear if the Sydney Showground Master Plan, SOP Master Plan 2030 Interim Review for Metro development been included.	TfNSW to confirm what developments and master plans in SOP have been used for demand modelling for PLR2



DOCUMENT TITLE	SECTION	PAGE	COMMENT	ACTION
Technical Paper 2 Transport and Traffic	3.1.4	16	Existing intersection performance at Hill Road and Carter Street has not been assessed but is later proposed as a construction and haulage route. This intersection currently operates with a very poor performance and is subject to restricted movements in the future associated with the Hill Road upgrade project by TfNSW.	TfNSW to resolve with SOPA appropriate construction routes in the vicinity of Carter Street and the potential impact on the performance of Edwin Flack Avenue and P1 Car Park as an alternate route to Carter Street and Uhrig Road which is used for events at Sydney Showground.
Technical Paper 2 Transport and Traffic	3.7 Table 3.9	32	The technical paper does not acknowledge the freight movements by large articulated heavy vehicles into the loading docks at the venues in Sydney Olympic Park and Sydney Showground. In particular, Sydney Showground Gate 13 is the loading dock access for all Sydney Showground events and exhibitions and often requires multiple stacking of articulated heavy vehicles along the Eastern side of Australia Avenue in readiness to turn right into the loading dock.	The expectation from RAS and SOPA is that access into all venues and in particular the Sydney Showground site and in particular the Gate 13 loading dock access be maintained and incorporated into all project documentation going forward as it is essential for the economic viability of the precinct.
Technical Paper 2 Transport and Traffic	Section 3.8.2	34	The largest major events accommodate 120,000 people not 60,000 as stated	Peak Day at the Easter Show is around 120,000 as is combined stadium and arena events. TfNSW to review assessment based on double the event activity currently considered in the EIS.
Technical Paper 2 Transport and Traffic	Section 3.8.2	34	The use of 2016 event data is questioned when base information for other studies for the project used 2018 and 2019 event data	TfNSW to source events working papers for PLR2 as developed in conjunction with SOPA in 2019 and 2021.
Technical Paper 2 Transport and Traffic	Section 3.8.2	35	There is a legislated requirement for 10,000 event car spaces in the SOP events precinct	TfNSW to review assessment based on 30% more spaces currently considered in the EIS.
Technical Paper 2 Transport and Traffic	Section 3.8.2	34	The level of information around event traffic management in the precinct is considered deficient considering Sydney Olympic Park's status as a major event precinct in Greater Sydney. The information presented should be informed by previous studies for Parramatta Light Rail Stage 2 and validated by SOPA for their currency	TfNSW to review assessment based on the understated level of event activity currently considered in the EIS.

DOCUMENT TITLE	SECTION	PAGE	COMMENT	ACTION
Technical Paper 2 Transport and Traffic	3.8.2	34	It is unclear why event data from 2016 has been used in the EIS when data for 2017 and 2018 was provided to TfNSW during the previous planning for PLR2	TfNSW to review assessment based on the understated level of event activity currently considered in the EIS.
Technical Paper 2 Transport and Traffic	3.9	35	The EIS incorrectly describes New England Avenue as a road connecting people with places of employment. New England Avenue is an internal venue access road within the Showground.	TfNSW to resolve with RAS and SOPA appropriate construction diversion routes for traffic.
Technical Paper 2 Transport and Traffic	4.1.2	44	RAS notes that the proposed future stop at Grand Parade and urge the proponent to seriously consider delivering this as part of the project. There is no clear explanation of the development trigger for this proposed stop so its future remains unclear as it appears to be the only two future proofed stops on the route and obvious extensions which suggests it is unlikely to be built independently years later.	TfNSW to describe the trigger for developing a future stop.
Technical Paper 2 Transport and Traffic	4.1.2	44	This stop would enable patrons leaving such venues as Stadium Australia, Qudos Bank Arena and Giants Stadium in particular to exit by foot along Grand Parade and prevent a large proportion of an event crowd from adding to potential congestion in and around the current T7 Line train station and the future Sydney Metro West station.	The expectation of RAS and SOPA is that the proposed stop be included in the initial project and that wire-free operations be incorporated into the stop.
Technical Paper 2 Transport and Traffic	4.1.2	44	The project being powered by overhead wiring along Australia Avenue could be problematic for some of the larger articulated heavy vehicles that access Sydney Showground via this busy road. As Australia Avenue is the key access into Gates 10 to 13, the opportunity exists to introduce catenary free operation from the proposed potential light rail stop at Grand Parade.	The expectation of RAS and SOPA is that the proposed stop be included in the initial project and that wire-free operations be incorporated into the stop.

DOCUMENT TITLE	SECTION	PAGE	COMMENT	ACTION
Technical Paper 2 Transport and Traffic	4.5 Table 4.3	50	Expected passenger demand -It is unclear where these demands have been derived from and whether they include transfers from Sydney Metro West. It is also unclear what development has been accounted for between 2031 and 2041.	TfNSW to confirm what developments and master plans in SOP have been used for demand modelling
Technical Paper 2 Transport and Traffic	4.6.1 Table 4.4	53	The EIS Technical Paper incorrectly describes the closure of Showground Road between Grand Parade and Murray Rose Avenue to facilitate the integration of Sydney Metro West. This should be correctly described as a closure between Dawn Fraser Avenue and Murray Rose Avenue.	TfNSW to confirm the correct road closure is between Dawn Fraser Avenue and Murray Rose Avenue.
Technical Paper 2 Transport and Traffic	4.9.2	60	Technical Paper 2 Transport and Traffic outlines a potential 6 year construction timeframe from 2025 to 2030/31. It is unclear why there is an extended period between peak construction in 2026/2027 and opening in 2031.	The expectation of RAS is that this construction timeframe be reduced in line with other light rail projects such as PLR1 and that the line is operating before Sydney Metro West in 2030 to reduce unnecessary additional bus movements in lieu of the delayed light rail service and concentrate all construction activities and cumulative disruption from TfNSW's projects.
Technical Paper 2 Transport and Traffic	4.9.4 Figure 4.15	70	Construction compound 12 proposes to occupy approximately half the current P5a car park (200 spaces), however this car park is occupied in full for the SRES for a period of 15 days and	TfNSW to resolve with RAS the impacts of loss of revenue and space in the P5a Car Park for a construction compound.
Technical Paper 2 Transport and Traffic	5.2; 5.2.7.2; Table 5.3	80	The EIS does not reflect the fact that streets such as Showground Road, Grand Parade and Orana Parade regularly operate as internal venue roads (as opposed to public roads), are subject to regular road closures within the Sydney Showground site and therefore cannot be relied upon for use as detour or construction routes whilst maintaining safe, consistent and effective venue operations.	TfNSW to resolve with RAS and SOPA appropriate diversion routes in the vicinity of Murray Rose Avenue and Dawn Fraser Avenue.



DOCUMENT TITLE	SECTION	PAGE	COMMENT	ACTION
Technical Paper 2 Transport and Traffic	5.2.7.2	95	The closure of Grand Parade is unacceptable as it is the key venue site access to the Sydney Showground and Giants Stadium. The use of roads within the Sydney Showground as potential detour routes are not considered acceptable due to the ownership, function, design and impact on event operations at Giants Stadium and the Sydney Showground.	RAS expects any works at this location should be staged to remain open at all times to stage events.
Technical Paper 2 Transport and Traffic	5.2.7.2	96	One way operation of Murray Rose Avenue is not considered appropriate with the closure of the parallel route on Dawn Fraser Avenue and regular event use of Grand Parade.	RAS expects that Murray Rose Avenue be maintained as a two way road for the duration of construction due to the lack of alternative parallel routes.
Technical Paper 2 Transport and Traffic	5.3	100	The requirement for 100 spaces in P5a car park does not match the 200 spaces outlined in section 4.9.4 or the 70 spaces in Table 5.5	TfNSW to clarify the required capacity of parking required across all section of the EIS.
Technical Paper 2 Transport and Traffic	5.5.2	106	The temporary bus routes in Figure 5.16 use roads that are frequently closed for major events.	TfNSW to redesign the bus route diversions in consultation with RAS and SOPA on suitable roads near existing bus customers.
Technical Paper 2 Transport and Traffic	6.1.2	114	"Park Street / Dawn Fraser Avenue—	It is unclear why the model assess this as operating at LoS F in the AM without project in 2031. This intersection is predominantly used by buses and taxis and local traffic on Dawn Fraser Avenue and Murray Rose Avenue. There is no explanation for the sudden degradation in intersection performance from 2019 to 2031 without project. Adjacent increases in traffic from new development within the precinct is unlikely to use this intersection. The model appears to over reporting the poor performance of this intersection."

DOCUMENT TITLE	SECTION	PAGE	COMMENT	ACTION
Technical Paper 2 Transport and Traffic	6.1.2	114	"Olympic Boulevard / Dawn Fraser Avenue—	It is unclear why the model assess this as operating at LoS F in the AM and PM without project in 2031. This intersection is very lightly trafficked in both east-west along Dawn Fraser Avenue and north-south along Olympic Boulevard. The majority of local traffic uses the four avenues to circulate around the precinct in particular Australia Avenue, Sarah Durack Avenue and Edwin Flack Avenue. This intersection is also regularly closed during major events which means local traffic regularly avoids this route. The model appears to over reporting the poor performance of this intersection."
Technical Paper 2 Transport and Traffic	6.1.2	114	"Edwin Flack Avenue / Dawn Fraser Avenue —	It is unclear why the model assess this as operating at LoS F in the AM without project in 2031. This intersection has been upgraded in recent times to traffic signals and intersection performance assessments for other projects within SOP by RAS and SOPA does not report such a degradation of performance, particularly in the AM peak. It is unclear with longer cycle times required for light rail vehicles that the performance of this intersection would improve with project in the AM peak. The model appears to over reporting the poor performance of this intersection."
Technical Paper 2 Transport and Traffic	6.1.2	117	"Hill Road / Parramatta Road —	It is unclear if the traffic model has considered the Hill Road widening project by TfNSW in this assessment."

DOCUMENT TITLE	SECTION	PAGE	COMMENT	ACTION
Technical Paper 2 Transport and Traffic	6.1.2	117	"Australia Avenue / Dawn Fraser Avenue—	It is unclear if the traffic model has considered the Homebush Bay Drive upgrade project by TfNSW in this assessment. This \$80M project will increase the performance of this intersection considerably whilst potentially negatively impacting downstream intersections such as Australia Avenue / Sarah Durack Avenue through induced demands."
Technical Paper 2 Transport and Traffic	6.1.2		The traffic modelling for the project has assumed the two following local network changes which have not been developed in detail with the RAS or SOPA — pedestrianising Dawn Fraser Avenue Between Australia Avenue and Olympic Boulevard — extension of Murray Rose Avenue from Showground Road to Olympic Boulevard	TfNSW to further consult with RAS and SOPA on the proposed road network changes in the town centre and their likely impacts.
Not Assessed			The way that the EIS has been written, there is a perception that events at SOP venues need to respond to the construction and operation of the light rail project rather than the opposite situation in which design and construction needs to respond to the current and future proposed environments and operations.	
Not Assessed			The current carnival site is located on the P6 a car park and part of Australia Avenue, land which is owned and operated by the Sydney Olympic Park Authority (SOPA). The rights to the carnival site are provided under an annual license deed which commenced in 1997 and operates for 99 plus 99 years.	The RAS and SOPA would consider an amendment to this side deed, to allow the relocation of the carnival site to a different site within the Olympic Park Precinct as previously discussed.



DOCUMENT TITLE	SECTION	PAGE	COMMENT	ACTION
Not Assessed			An associated issue of the carnival site relocation is the potential impact on the Plaza Event Bus Terminal on Olympic Boulevard. This facility is activated for events with crowds of >50,000 spectators and operates for everyday of the SRES. It provides bus-based public transport for approximately 10-15% of the total crowd. Its location on Olympic Boulevard is the preferred site for the carnival's relocation from P6a. This ties the future of this important public transport facility which has been successfully operating for 24 years, to the PLR2 project. The relocation of the Plaza Event Bus Terminal to accommodate the Carnival site is currently not scoped or funded by government but remains an important element of the precinct event transport plan.	TfNSW to include the relocation of the Plaza Event Bus Terminal to accommodate the Carnival site into the assessment.
Not Assessed			It appears that the traffic model is over estimating the use of Dawn Fraser Avenue as a through traffic movement corridor in the "without project" scenario. There is no explanation for the significant degradation in traffic performance between 2019 and 2031 on the modelled intersections. It is also not validated against existing traffic operations which are more like LoS A or B.	To have certainty that all options for local road network changes have been explored with RAS and SOPA before relying on this for definitive traffic modelling and placing on public exhibition, further consultation and workshopping of the options is required between the PLR2 project team, RAS and SOPA to gain endorsement.
Not Assessed			Construction of the proposed extension of Murray Rose Avenue East between Showground Road and Olympic Boulevard.	If demonstrated to be the optimal solution, the proposed extension of Murray Rose Avenue East between Showground Road and Olympic Boulevard should be part of the first stage of construction on the project to relieve the loss of the proposed pedestrianised section of Dawn Fraser Avenue from the local road network. This will be also important to relieve Herb Elliott Avenue as the parallel east-west road.

DOCUMENT TITLE	SECTION	PAGE	COMMENT	ACTION
Not Assessed			The proposed Homebush Bay Drive upgrade is an \$80M road project that is expected to take 18 months to construct.	This major road project may influence PLR2 construction. TfNSW should consider it as a project which may create a cumulative impact.
Not Assessed			The proposed Hill Road widening is an ongoing TfNSW project that is required to support the development of the Carter Street, Wentworth Point and Sydney Olympic Park precincts. This major road project may influence PLR2 construction and should be considered as a project which may create a cumulative impact.	This major road project may influence PLR2 construction. TfNSW should consider it as a project which may create a cumulative impact.
Not Assessed			Event precinct disruption.	It is also expected that TfNSW would prioritise the construction in the SOP events precinct to ensure disruption to NSW's premier event precinct is minimised, in turn minimising detrimental impact to the economic benefit currently created to the state.
Not Assessed			Lessons learned from the planning, construction and operation of previous light rail projects in NSW.	There is an expectation that TfNSW will bring all of the lessons learned from the planning, construction and operation of previous light rail projects in NSW to bear on this project to the benefit of all stakeholders and customers. The EIS documentation does not reflect this.
Not Assessed			The EIS incorrectly describes the closure of Showground Road from Herb Elliott Avenue to Grand Parade.	RAS has no issue with the proposed closure of Showground Road from Murray Rose Avenue to Dawn Fraser Avenue, however, notes that for events, the proposed extension of Murray Rose Avenue from Showground Road to Olympic Boulevard will need to be closed to traffic.

DOCUMENT TITLE	SECTION	PAGE	COMMENT	ACTION
Not Assessed			When Olympic Boulevard is closed to traffic to create the event pedestrian priority precinct for the stadium and arena and it is likely that this proposed extension will be automatically closed as there would be no access available at the intersection of Murray Rose Avenue and Olympic Boulevard.	With the removal of traffic from Dawn Fraser Avenue between Australia Avenue and Olympic Boulevard and the prolonged light rail construction period envisaged, it is recommended that the extension of Murray Rose Avenue from Showground Road to Olympic Boulevard be included as part of the PLR2 project to maintain local road access to and from the west towards Carter Street from the streets around the T7 station.
Not Assessed			The area in and around this extension is a heavily populated area for pedestrian traffic being the main thoroughfare for patrons walking to and from the existing T7 railway station to both Stadium Australia, Qudos Bank Arena and the Main Gate for the SRES.	This section should also be constructed as part of early works to maintain the access for the businesses located on Murray Rose Avenue and the flexibility of the local road network in the absence of access to the permanently closed section of Dawn Fraser Avenue.
Not Assessed			Whilst the EIS advises that all current accesses to Sydney Showground from Australia Avenue will be maintained, it fails to confirm that a right hand turn in and out of all existing accesses will be maintained.	TfNSW to confirm that right hand turn movements in and out of all existing accesses on Australia Avenue will be maintained as this is critical to the operations of the Showground. If not maintained alternative routes must be demonstrated to be suitable.
Not Assessed			Construction compound 13 proposes to occupy a section of the P6a car park	Construction compounds will need to be de-established for a period of approximately 40 days annually to enable occupation of the site for the SRES Carnival.
Not Assessed			Cumulative traffic impacts not including all TfNSW projects.	The traffic assessment outlined in the EIS Working Paper does not appear to consider the cumulative impacts of several TfNSW projects planned for Sydney Olympic Park and how they would influence the construction and operation of the light rail. These include Sydney Metro West, Hill Road widening, Australia Avenue / Homebush Bay Drive upgrade, Silverwater Road / Holker Street upgrade.



DOCUMENT TITLE	SECTION	PAGE	COMMENT	ACTION
Not Assessed			"The EIS advises that the construction contractor(s) would be responsible for considering known special events in the construction program Understanding and pricing this element by contractors will be	Not Assessed
Not Assessed			Event construction impacts.	It is the expectation of RAS that TfNSW will follow procedures put in place for the construction of the CSELR through the Moore Park events precinct.
Not Assessed			It is noted that the construction impacts the turning circle of the Aquatic Bus Terminal on Olympic Boulevard at the intersection with Herb Elliott Avenue.	It is the expectation that the construction zone be adjusted to the north of this intersection to allow the event bus terminal to operate for the SRES and other stadium events.
Not Assessed			Construction adjacent to T7 Olympic Park station .	It is also expected that the construction adjacent to the westbound platforms of the T7 Olympic Park station be staged outside of major events such as SRES to allow side loading of the station to be maintained.
Not Assessed			RAS acknowledges the signalised intersection plans for Holker Busway/Kevin Coombs Avenue, Australia Avenue/Grand Parade, Australia Avenue/Murray Rose Avenue	RAS advises that prolonged full closure of these intersections for construction will not be compatible with events at Sydney Showground and its associated venues including Giants Stadium and will need to be managed as partial closures

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