Planning Approval Consistency Assessment Form

SM-17-00000111

Metro Body of Knowledge (MBoK)

Assessment name:	Sydney International Speedway – excess spoil reuse
Prepared by:	Sydney Metro
Prepared for:	Sydney Metro
Assessment number:	SIS03
Status:	Final
Version:	1.0
Planning approval:	SSI 10048
Date required:	20/04/21
iCentral number:	SM-21-00064719

Form information – do not alter:

Applicable to:	Sydney Metro
Document Owner:	Director, Environment, Sustainability & Planning
System Owner:	Deputy Chief Executive, Operations, Customer & Place-making
Status:	Final
Version:	3.0
Date of issue:	27 November 2020

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The Planning Approval Consistency Assessment Form should be completed in accordance with SM-17-00000103 Planning Approval Consistency Assessment Procedure.

1. Existing Approved Project

Planning approval reference details (Application/Document No. (including modifications)):

- SSI 10048 Sydney International Speedway

Date of determination:

- SSI 10048: 23 December 2020

Type of planning approval: SSI (Division 5.2)

Description of existing approved project you are assessing for consistency:

- Construction and operation of the Sydney International Speedway including:
  - A new world-class clay-based racetrack for both speedway cars and motorcycles including sprint, wingless sprint, street stockers, V8 dirt modified and Formula 500 cars
  - A new grandstand and terraced seating to accommodate up to 7000 spectators
  - Public amenities, corporate boxes, food, beverage and merchandise outlets
  - Dedicated parking for speedway competitors and spectators
  - Additional overflow parking with flexibility to be used for dragway events
  - Dual access to the precinct by creating new vehicle access to the speedway pit area via a new intersection built off Ferrers Road
  - A dedicated competitor pit area to service the speedway
  - Workshops, garages and trackside support services.

With the exception of contaminated soil (if it is encountered), no off-site spoil disposal was anticipated as part of the project. As discussed in Chapter 5 (Project description) of the Environmental Impact Statement (EIS), earthworks in construction areas one to six would generate about 100,300m^3 of excess cut material After exhibition of the EIS and completion of further detailed design, earthworks volumes were refined and reduced as part of the Submissions Report and Amendment Report for the approved project, and the total excess cut volumes were reduced to approximately 16,000m^3.

This material was proposed to be transported to construction area seven and formed into a landscaped mound, forming an operational component of the project. It was also identified in the EIS that Sydney Metro are exploring opportunities for spoil to be reused for nearby construction projects if feasible.

Relevant background information (including EA, REF, Submissions Report, Director General's Report, MCoA):

- Sydney International Speedway Environmental Impact Statement including accompanying technical papers (August 2020)
- Sydney International Speedway Submissions Report (November 2020)
- Sydney International Speedway Amendment Report (November 2020)
- Instrument of Approval (dated 23 December 2020).

The above documents are available on the NSW planning portal here: https://www.planningportal.nsw.gov.au/major-projects/project/30111

All proposed works identified in this assessment would be undertaken in accordance with the mitigation measures identified in the EIS, Submissions Report and Amendment Report and the conditions of approval.

2. Description of proposed development/activity/works

During detailed design since determination of the project, additional assessments on the constructability requirements for the approved project have been undertaken for the following:

- Revised geotechnical requirements for retaining walls to meet global stability requirements
- Updates to the specific requirements for drainage design in accordance with the requirements as advised by Blacktown City Council
- Accurate services excavation requirements
- Revision of the design of the rainwater tank excavation.

Sydney Metro have therefore recalculated the earthworks required at the site, and identified an excess of cut material / spoil to be generated during construction of the project. Recalculations of the projected total earthworks volumes have estimated that about 125,000m^3 of excess spoil would be generated by the project (approximately 25,000m^3 greater than assessed in the EIS, and 109,000m^3 greater than estimated for the Amendment Report for the approved project).

Sydney Metro have identified a preferred solution to reuse 100% of the excess spoil, in line with the Sydney Metro West sustainability objective of achieving 100% beneficial reuse. This includes the following solution:

- Up to 60,000m^3 of excess spoil would be transferred to the construction site for the Sydney Metro West – Eastern Creek Precast Facilities. The Eastern Creek Precast Facilities project identified up to 116,000m^3 of imported fill would be required during construction. The imported spoil from the Speedway project would be stockpiled on the site temporarily and used in site levelling
- Up to 30,000m^3 of excess spoil would be transferred to the construction site for the Archbold Road Upgrade and Extension, which would contribute to the engineered fill required to construct Archbold Road, connecting the new Lenore Drive intersection north to the Eastern Creek Precast Facilities. Materials would be stockpiled at the main site compound for the Archbold Road Upgrade and Extension project, which is located north of the Lenore Drive intersection
- Up to 14,000m^3 of excess spoil (in addition to the estimated 16,000m^3 for the approved project) would be transferred to construction area seven and formed into a landscaped mound, forming an operational component of the project. The maximum height of the landscaped mound would be about 3 metres, consistent with the approved project (refer figure 3)
- Refinements to landscape design within the site.

The two elements of the revised scope which were not considered in the approved project and form the basis of this Consistency Assessment include:

- Increasing the approximate volume of spoil to be transferred to construction area seven, to be stockpiled and then formed into a landscaped mound for operations
- Additional construction traffic movements required to transfer up to 90,000m^3 of spoil to the Eastern Creek Precast Facilities and the Archbold Road Upgrade and Extension construction sites.

Up to 30,000m^3 of excess spoil would be stockpiled at construction area seven, with the remaining area to be temporarily stockpiled at Carpark D prior to being transferred offsite.

Up to 300 additional heavy vehicle movements (i.e. 150 heavy vehicle movements exiting the site and 150 entering the site) would be required each day to transfer excess spoil to the Eastern Creek Precast Facilities and the Archbold Road Upgrade and Extension construction sites. Heavy vehicles would enter and exit the approved project area via Ferrers Road at construction area seven. Transfer of spoil would only occur during standard construction hours.

The staffing levels and waste generated are expected to be similar as for the approved project. Ten heavy vehicle operators would be required for spoil transportation, with an additional 30T excavator operator required.

3. Timeframe

When will the proposed change take place? For how long?

Management of the excess spoil would continue to take place for the duration of construction in line with the approved project. Transportation of excess spoil offsite would be required for approximately 40 working days over a period of 3 months in mid 2021.

4. Site description

Provide a description of the site on which the proposed works are to be carried out, including, Lot and Deposited Plan details, where available. Map to be included here or as an appendix. Detail of land owner.

The Sydney International Speedway (SIS) is being developed on land owned by the NSW Government, managed by the Western Sydney Parklands Trust (WSPT). The SIS is located on the following lots:

- Lot 1, deposited plan (DP) 1077822
- Lots A, B & C DP 408966
- Lot 2 DP 1062965.

No changes to the approved project area is required for the proposal. The approved project area is shown in Appendix A.

5. Site Environmental Characteristics

Describe the environment (i.e., vegetation, nearby waterways, land use, surrounding land use), identify likely presence of protected flora/fauna and sensitive area.

The proposal would be consistent with the approved project area as described in section 3 of the Amendment Report. The project is located within the Western Sydney Parklands which is managed by the Western Sydney Parklands Trust pursuant to the provisions of the *State Environmental Planning Policy (Western Sydney Parklands) 2009* (Western Sydney Parklands SEPP). The objective of the Western Sydney Parklands SEPP is to implement planning controls that will enable the Western Sydney Parklands Trust to develop the Parklands into a multi-use urban parkland for Western Sydney.

Construction area seven

Construction area seven is a cleared / grassed area, currently being used for temporary stockpiling for the project. This area is bound by Ferrers Road to the north, and the Warragamba pipeline corridor to the south (as shown in Appendix A). The approved project considered

the stockpiling of up to approximately 16,000m^3 of spoil, which was reduced from 100,300m^3 in the EIS following revised cut / fill calculations. The footprint (total area) of the stockpile was also reduced in size following revised cut / fill calculations.

However, as previously discussed, approximately 30,000m^3 of additional spoil would be required to be stockpiled at the site to enable the construction of the approved project (approximately 14,000m^3 greater than anticipated for the approved project). This would result in a stockpile height of about 3 metres in line with the EIS for the approved project. The footprint of the stockpile would remain consistent with the approved project as identified in section 3 of the Amendment Report. The proposed stockpile would be also compatible with the existing landscape character of the locality.

Figure 1 Construction area 7

Figure 2 Construction area 7

Figure 3 Photomontage of future view with the project from viewpoint 5 showing the landscaped mound (source: Sydney International Speedway Environmental Impact Statement 2020)

Haulage route

Heavy vehicles would exit the approved project area to the south along Ferrers Road, where they would turn right onto The Horsley Dive Road, then right onto Wallgrove Road (the proposed haulage route, refer Appendix A). This haulage route has been assessed in the EIS, and is recommended in the Traffic and Transport Memorandum provided in Appendix B, as it would reduce traffic impacts such as intersection performance (refer to section 6 below). The haulage route is primarily through land subject to the Western Sydney Parklands SEPP.

Ferrers Road is a single carriageway road that connects Brabham Drive / Peter Brock Drive in the north and The Horsley Drive in the south. The road operates with a signposted speed limit of 60 kilometres per hour and provides access to the Sydney International Speedway site.

The Horsley Drive extends in an east-west direction between the Hume Highway, Lansdowne in the east and Arundel Road, Horsley Park in the west. The section of The Horsley Drive utilised for the haulage route for the proposal operates mostly as a four-lane, single carriageway road with a sign posted speed limit of 60 kilometres per hour. It is classified as primary freight route between Elizabeth Street, Wetherill Park and Wallgrove Road.

Wallgrove Road to the west of the project site runs parallel to the M7 Motorway between the Great Western Highway in the north and Elizabeth Drive in the south. The section of Wallgrove Road utilised for the haulage route for the proposal operates as a two lane, single carriageway road with a sign posted speed limit of 70 kilometres per hour. It is classified as a tertiary freight route.

6. Justification for the proposed works

Address the need for the proposed works, whether there are alternatives to the proposed works (and why these are not appropriate), and the consequences with not proceeding with the proposed work.

Sydney Metro has identified an excess of cut material / spoil to be generated during the construction phase of the project, and it is estimated that 125,000m^3 of excess spoil would be generated by the project (approximately 25,000m^3 greater than assessed in the EIS, and 109,000m^3 greater than estimated for the Amendment Report for the approved project). This is as a result of the detailed design following determination of the approved project providing a more accurate estimate on the earthworks volumes and constructability requirements including:

- Revised geotechnical requirements for retaining walls to meet global stability requirements
- Updates to the specific requirements for drainage design in accordance with the requirements as advised by Blacktown City Council
- Accurate services excavation requirements
- Revision of the design of the rainwater tank excavation.

Sydney Metro have identified a preferred solution to reuse 100% of the excess spoil, through landscaping and the transfer of spoil to the Eastern Creek Precast Facilities and Archbold Road Upgrade and Extension construction sites. Alternate options which were considered include:

- Transfer of total excess spoil volumes to construction area seven. This would substantially increase the stockpile height and size (and final landscaped mound size) which would lead to greater visual amenity impacts than assessed in the approved project and was therefore not progressed
- Investigations into the lime stabilisation of carpark areas was undertaken to determine the potential reuse of excess spoil, however due to constructability constraints associated with the material properties of the spoil, this option was not deemed feasible
- Sending excess spoil to a waste facility for processing, however this option would not achieve Sydney Metro sustainability objectives and therefore was not progressed.

These three alternatives posed additional sustainability and constructability impacts, and a preferred methodology (subject of this Consistency Assessment) was identified. The proposal is required to utilise the total excess spoil as a result of the construction activities for the Sydney International Speedway.

Project development

The Traffic and Transport Memorandum prepared to inform this Consistency Assessment (Appendix B) assessed the most direct haulage route between the project site and the nearest arterial road network (Wallgrove Road). This included the following haulage route (as shown as the alternate haulage route in Appendix A):

- Heavy vehicles would exit the project site via Ferrers Road to the south of the project site
- Perform a right hand turn at the un-signalised intersection with Chandos Road
- From Chandos Road, vehicles would turn right onto Wallgrove Road (which is also un-signalised) to join the arterial road network, for travel to and from the Eastern Creek Precast Facilities and Archbold Road Upgrade and Extension construction sites.

The Traffic and Transport Memorandum identified this haulage route for spoil transfer may result in temporary moderate impacts on road network performance associated with the Wallgrove Road / Chandos Road intersection. Traffic modelling identified there are potential increases in delay and queuing on the east approach of the intersection that would result in potential temporary moderate impacts. The existing poor performance is because Chandos Road is a minor road and therefore vehicles from Chandos Road must give way to vehicles travelling on Wallgrove Road.

The Traffic and Transport Memorandum identified a potential alternate route to minimise impacts to the Wallgrove Road / Chandos Road intersection, which would be via Ferrers Road, The Horsley Drive (approximately 1.2km further south of Chandos Road) and Wallgrove Road (refer to Appendix A). This would allow construction vehicles to turn at signalised intersections and would likely minimise impacts on the local road network as a result.

The proposed haulage route has therefore been revised to exit the approved project area to the south along Ferrers Road, where they would turn right at the signalised intersection on to The Horsley Dive Road, then right at the signalised intersection onto Wallgrove Road. This would also minimise the potential for traffic noise impacts for residential properties along Chandos Road associated with the increase in traffic volumes. This haulage route remains consistent with that identified in the EIS.

7. Environmental benefit

Identify whether there are environmental benefits associated with the proposed works. If so, provide details:

The environmental benefits of transporting the spoil to the Eastern Creek Precast Facilities and Archbold Road Upgrade and Extension construction sites would have a positive sustainability outcome for the approved project, as Sydney Metro have identified an opportunity for beneficial reuse in close proximity to the site. As previously discussed, the proposal is required to utilise the excess spoil in a sustainable manor in line with the Sydney Metro West sustainability objectives.

The Eastern Creek Precast Facilities and Archbold Road Upgrade and Extension construction sites are located less than 5 kilometres from the Speedway project site. Given the relatively short haulage route required between the sites, the impact on the transport network would be reduced. This also means the greenhouse gas emissions associated with the haulage of spoil would be minimised, due to short transportation distances / travel time.

8. Control Measures

Will a project and site specific EMP be prepared? Are appropriate control measures already identified in an existing EMP?

The works would be undertaken within the existing CEMP which identifies appropriate controls for the works. All soil and erosion controls would be implemented as per the existing CEMP.

Condition E34: All reasonably practicable erosion and sediment controls must be installed and appropriately maintained to minimise water pollution. When implementing such controls, any relevant guidance in the *Managing Urban Stormwater* series must be considered.

- Stockpiling and the transfer of spoil required for the proposal would be undertaken in accordance with the *Managing Urban Stormwater* series, as implemented through the existing Construction Environment Management Plan (CEMP).

Condition E35: The permanent stockpile to be located on Lot 1 DP 1077822 must be designed and treated to ensure a stable landform and that existing drainage paths from the Warragamba pipeline corridor are not impeded.

- The permanent stockpile would not increase in height from that assessed in the EIS (about 3 metres), and the stockpile footprint would remain consistent with that of the approved project (as reduced in the Amendment Report). The stockpile would be designed and treated to ensure a stable landform. The stockpile is designed with a 2:1 batter slope, and at this height no benching is required. The stockpile is to be formed as per RMS Specification R44 Section 2.3.2. This would ensure a stable landform without impeding on the drainage paths from the Warragamba pipeline corridor.

Condition E51: The stockpile on Lot 1 DP 1077822 must be designed and constructed to ensure that no additional surface run off enters the Warragamba pipeline corridor.

- No additional run off would enter the Warragamba pipeline with the proposed stockpile design. This is because there is no increase in catchment area or pervious area at this location. All water would be captured at the low point (pit), through the pit and pipe system, and goes underneath the Warragamba pipeline corridor. Therefore, increasing the stockpile volume would not impact the potential for surface run off entering the Warragamba pipeline corridor as the footprint of the stockpile is consistent with that of the approved project.

9. Climate Change Impacts

Is the site likely to be adversely affected by the impacts of climate change? If yes, what adaptation/mitigation measures will be incorporated into the design?

Potential impacts of climate change are expected to be minimal due to the relatively short timeframe of the construction phase of the project. Climate change adaptation impacts from this proposal would be consistent with those assessed in the Environmental Impact Statement.

10. Impact Assessment – Construction

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Flora and fauna	No change from the approved project.	No additional measures required.	Y	Y	
Water	Potential for minor and localised soil erosion and sedimentation as a result of additional stockpiling of material, which would be managed through erosion and sedimentation controls already established in the CEMP.	No additional measures required.	Y	Y	
Air quality	Exhaust emissions generated to transfer spoil between project sites would be temporary and would not significantly contribute to emissions in the local area given the high existing levels of vehicle use in urban areas surrounding the project site. These emissions would be adequately managed by the implementation of standard construction mitigation measures. No long term adverse impacts to air quality are anticipated. An increase in spoil volumes would be stockpiled in construction area seven, which has the potential to increase dust emissions during the construction phase until it is formed into a permanent landscaped mound. However, the EIS air quality impact assessment concluded that potential dust emissions would be temporary in nature and adequately managed through the Air Quality Management Plan. This includes standard air quality management measures such as dampening down exposed materials (including the temporary stockpiles).	No additional measures required.	Y	Y	
Noise and vibration	**Construction noise and vibration** The construction noise impacts from the approved project are generally low, due to the large separation distance between the project site and nearest receivers. EIS Technical Paper 2 – Noise and Vibration assessed earthworks movements within all construction areas and concluded that construction noise levels are predicted to be within the Noise Management Levels for all works during Standard Construction Hours (based on similar cut and fill volumes which were then	Transportation of spoil must occur within standard construction hours only.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
	reduced as part of the Amendment Report). As the proposal would not require a greater number of estimated plant and machinery than assessed in Technical Paper 2, it can be assumed that the project would not increase construction noise impacts on nearby receivers as a result of increased earthworks. 'Southern Area Stockpiling Works – Earthworks' was considered in the construction scenario description for area seven based on the stockpiling of around 100,300m^3 (which were since reduced as part of the Amendment Report). This included bulk earthworks and haulage of material. Technical Paper 2 was prepared based on similar earthworks volumes at construction area seven to the volumes required for the proposal, and it concluded that there would be no exceedance of the noise management levels. The proposal would therefore be consistent with the approved project, and would not have a greater noise impact on nearby receivers. **Construction traffic noise** Construction traffic noise was considered in the EIS for the approved project, which assessed the potential impacts from construction traffic along Ferrers Road, south of the project site. This assessed up to 600 heavy vehicles movements per day required during cut and fill earthworks. The Submissions Report for the approved project however clarified that traffic volumes would be reduced to around 95 vehicle movements. The proposal to increase vehicle movements by approximately 300 a day would therefore be less than assessed in the EIS. The assessment for the EIS based on 600 heavy vehicle movements concluded that construction traffic from the project is predicted to result in an increase in road traffic noise levels of less than 2.0 dB along Ferrers Road and does not trigger the requirement for consideration of additional noise mitigation. The impact on traffic noise of the proposal would also be less than 2dB and would also not trigger the requirement for consideration of additional noise mitigation. From Ferrers Road, vehicles would access Wallgrove Road adjacent to the Westlink M7 (via The Horsley Drive) where the existing traffic volumes are sufficiently				

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
	high that change in noise levels from additional construction vehicles would not be expected to be discernible. **Vibration** The proposal is not expected to introduce any new sources of construction vibration near the Warragamba Pipeline and therefore no additional vibration impacts on the pipeline are expected as part of the proposal.				
Aboriginal heritage	No change from the approved project.	No additional measures required.	Y	Y	
Non-Aboriginal heritage	No change from the approved project.	No additional measures required.	Y	Y	
Community and stakeholder	No change from the approved project.	No additional measures required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Traffic	Up to 300 additional heavy vehicle movements (i.e. 150 heavy vehicle movements exiting the site and 150 entering the site) would be required each day to transfer excess spoil offsite. The heavy vehicles would enter and exit the approved project area via Ferrers Road at construction area seven, turn right at the signalised intersection to The Horsley Drive, then left at the signalised intersection to Wallgrove Road, where they would join the arterial road network to travel on toward the Eastern Creek Precast Facilities and Archbold Road Upgrade and Extension construction sites. The EIS and Amendment Report identified that potential impacts of the Sydney International Speedway would be limited to potential temporary minor impacts on road network performance. The Traffic and Transport Memorandum provided at Appendix B identified however that the predicted changes in delay or maximum queue length from the proposal would result in moderate impacts at the Wallgrove Road / Chandos Road intersection, if this was to be utilised for the haulage route. Therefore, to ensure consistency with the impacts identified through previous assessments, an alternate route to minimise impacts to the Wallgrove Road / Chandos Road intersection has been selected, which would include Ferrers Road, The Horsley Drive and Wallgrove Road. This would allow construction vehicles to turn at signalised intersections and would likely minimise impacts on the local road network as a result. Therefore, the results of this assessment are consistent with the impacts identified in the Sydney International Speedway EIS and Amendment Report. This is further discussed in Section 6 of this Consistency Assessment and Appendix B. The Traffic and Transport Memorandum also identified there would be no further level of impact on parking and property access, public transport or active transport as a result of the proposal.	No additional measures are required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Waste	Given the increase in excess cut material as a result of further design development since determination of the project, Sydney Metro have now identified opportunities to minimise construction waste by transferring spoil to nearby construction projects to achieve 100% beneficial reuse. Therefore, the overall waste management and resource use impacts would remain consistent with the approved project.	No additional measures required.	Y	Y	
Social	No change from the approved project.	No additional measures required.	Y	Y	
Economic	No change from the approved project.	No additional measures required.	Y	Y	
Visual	The proposed construction footprint would be consistent with Viewpoint 5 within the *Technical Paper 7 - Landscape and Visual Amenity* of the approved project. The proposal includes no change to the stockpile height than assessed in the EIS and therefore this would have no change to the visual impacts for the approved project (assessed as having a negligible visual impact). The proposal would also require additional heavy vehicle movements and construction plant and machinery to manage the additional spoil at stockpile area seven. Any change in visual impact in regard to additional construction plant and material at this location would be temporary and negligible.	No additional measures required.	Y	Y	
Urban design	No change from the approved project.	No additional measures required.	Y	Y	
Geotechnical	No change from the approved project.	No additional measures required.	Y	Y	
Land use	No change from the approved project.	No additional measures required.	Y	Y	
Climate change adaptation	Climate change adaptation impacts from this proposal would be consistent with those assessed for the approved project.	No additional measures required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Risk	No change from the approved project.	No additional measures required.	Y	Y	
Other	No change from the approved project.	No additional measures required.	Y	Y	
Management and mitigation measures	No change from the approved project.	No additional measures required.	Y	Y	

11. Impact Assessment – Operation

Aspect	Nature and extent of impacts (negative and positive) during operation (if control measures implemented) of the proposed activity/works, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Flora and fauna	No change from the approved project.	No additional measures required.	Y	Y	
Water	Condition E35 and E51 for the approved project state the permanent stockpile to be located on Lot 1 DP 1077822 must be designed and treated to ensure a stable landform and that existing drainage paths from the Warragamba pipeline corridor are not impeded that no additional surface run off enters the Warragamba pipeline corridor. The proposal includes no change to the stockpile height than assessed in the EIS, which concluded the project would have a neutral impact on the water quality of the Warragamba Pipelines, given that the water within the Warragamba Pipelines is enclosed within the Bulk Water Supply infrastructure and there is no pollution pathway for run off from the project site to impact the water quality.	No additional measures required.	Y	Y	
Air quality	No change from the approved project.	No additional measures required.	Y	Y	
Noise and vibration	No change from the approved project.	No additional measures required.	Y	Y	
Aboriginal heritage	No change from the approved project.	No additional measures required.	Y	Y	
Non-Aboriginal heritage	No change from the approved project.	No additional measures required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during operation (if control measures implemented) of the proposed activity/works, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Community and stakeholder	No change from the approved project.	No additional measures required.	Y	Y	
Traffic	No change from the approved project.	No additional measures required.	Y	Y	
Waste	No change from the approved project.	No additional measures required.	Y	Y	
Social	No change from the approved project.	No additional measures required.	Y	Y	
Economic	No change from the approved project.	No additional measures required.	Y	Y	
Visual	The proposed construction footprint would be consistent with Viewpoint 5 within the Technical Paper 7 - Landscape and Visual Amenity of the approved project. Given the stockpile height is consistent to that as assessed in the EIS (about 3 metres), this would have no change to the visual impacts for the approved project which assessed as having a negligible visual impact.	No additional measures required.	Y	Y	
Urban design	No change from the approved project.	No additional measures required.	Y	Y	
Geotechnical	No change from the approved project.	No additional measures required.	Y	Y	
Land use	No change from the approved project.	No additional measures required.	Y	Y	
Climate change adaptation	No change from the approved project.	No additional measures required.	Y	Y	
Risk	No change from the approved project.	No additional measures required.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during operation (if control measures implemented) of the proposed activity/works, relative to the Approved Project	Proposed Control Measures in addition to project COA and REMMs	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Other	No change from the approved project.	No additional measures required.	Y	Y	
Management and mitigation measures	No change from the approved project.	No additional measures required.	Y	Y	

12. Consistency with the Approved Project

Based on a review and understanding of the existing Approved Project and the proposed modifications, is there is a transformation of the Project?	No. The proposed works would not transform the project. The proposal is required to manage excess spoil from design development associated with the approved project.
Is the project as modified consistent with the objectives and functions of the Approved Project as a whole?	Yes. The proposed works would be consistent with the objectives and functions of the approved project.
Is the project as modified consistent with the objectives and functions of elements of the Approved Project?	Yes. The changes identified in this assessment are consistent with the objectives and functions of the elements of the approved project.
Are there any new environmental impacts as a result of the proposed works/modifications?	All risks would be adequately addressed through the application of the mitigation measures in the above tables. There would be no new environmental risks as a result of the proposed works.
Is the project as modified consistent with the conditions of approval?	Yes. The proposed works would be consistent with the conditions of approval.
Are the impacts of the proposed activity/works known and understood?	Yes. The impacts of the proposed works are understood and will be accounted for by implementing the control measures within this document, the CEMP, CEMP sub-plans including the Construction Traffic Management Framework.
Are the impacts of the proposed activity/works able to be managed so as not to have an adverse impact?	Yes. The impacts of the proposed works can be managed so as to avoid an adverse impact.

13. Other Environmental Approvals

Identify all other approvals required for the project:	N/A

Author certification

To be completed by person preparing checklist.

I certify that to the best of my knowledge this Consistency Checklist: • Examines and takes into account the fullest extent possible all matters affecting or likely to affect the environment as a result of activities associated with the Proposed Revision; and • Examines the consistency of the Proposed Revision with the Approved Project; is accurate in all material respects and does not omit any material information.			
Name:	Jessie Strange	Signature:	
Title:	Planning Approvals Officer		
Company:	Sydney Metro	Date:	19/4/21

This section is for Sydney Metro only.

Application supported and submitted by			
Name:	Yvette Buchli	Date:	19/04/2021
Title:	Associate Director, Planning Approvals	Comments:	
Signature:			

Based on the above assessment, are the impacts and scope of the proposed activity/modification consistent with the existing Approved Project?

Yes	☒	The proposed activity/works are consistent and no further assessment is required.
No	☐	The proposed works/activity is not consistent with the Approved Project. A modification or a new activity approval/ consent is required. Advise Project Manager of appropriate alternative planning approvals pathway to be undertaken.

Endorsed by			
Name:	Stuart Hodgson	Date:	20/04/2021
Title:	Director ESP SMW	Comments:	
Signature:			

Appendix A: Proposed haulage route

Sydney International Speedway - proposed haulage route for spoil transfer

09/04/2021

Sydney International Speedway Approved Project Footprint

Proposed haulage route for spoil transfer

Alternate haulage route - not progressed due to potential traffic impacts associated with unsignalised intersections at Chandos Road

1:25,000

0 0.25 0.5 1 mi

0 0.38 0.75 1.5 km

Esri, HERE, Garmin, METI/NASA, USGS

Appendix B – Traffic and Transport Memorandum

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Memorandum

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Subject	**Sydney Metro West Sydney International Speedway – Consistency Assessment Transport and Traffic Memorandum**	**Project Name**	Sydney Metro West Sydney International Speedway
From	Christos Apostolopoulos / Clarence Li	**Project No.**	IA199800
Date	15 April 2020		

1. Introduction

Sydney Metro have identified the opportunity to utilise the excess spoil generated by the Sydney International Speedway construction site by delivering the spoil offsite to nearby construction projects, including the Eastern Creek Precast Facilities. The spoil would be used during construction of Eastern Creek Precast Facilities as fill material including for grading the site. This section provides the background and introduces the proposed change to the approved Sydney International Speedway. It also provides the purpose, scope and structure of this memorandum.

1.1 Background

Planning approval for the construction and operation of the Sydney International Speedway (the approved project) was granted on 23 December 2020 (SSI-10048). The predicted impacts of the Sydney International Speedway were assessed in an Environmental Impact Statement completed by Sydney Metro in August 2020, in accordance with the provisions under Division 5.2 of Part 5 of the *Environmental Planning and Assessment Act 1979*. Following public exhibition of the Environmental Impact Statement, an Amendment Report was prepared to assess proposed amendments to the project and identify any associated environmental impacts, and a Submissions Report was prepared to respond to the issues raised by public authorities, key stakeholders and members of the community.

Therefore, the approved project includes construction and operation of the Sydney International Speedway as described in the following:

- Sydney International Speedway Environmental Impact Statement (Sydney Metro, 2020a)
- Sydney International Speedway Submissions Report (Sydney Metro, 2020b)
- Sydney International Speedway Amendment Report (Sydney Metro, 2020c)
- The conditions of approval as set out in Schedule 2 of the Infrastructure approval for the Sydney International Speedway.

The construction haulage routes and intersections assessed for the approved project include those from the Sydney International Speedway site to the arterial road network, specifically:

- Great Western Highway / Doonside Road / Brabham Drive
- Brabham Drive / Huntingwood Drive
- Brabham Drive / Ferrers Road / Peter Brock Drive
- Ferrers Road / Chandos Road

- Ferrers Road / The Horsley Drive.

The identified construction impacts of the approved project with relation to transport and traffic were limited to:

- Potential temporary minor impact on road network performance
- No impacts to existing pedestrians and cyclist infrastructure are anticipated given that footpaths, pedestrian crossings and cycle routes near the project would remain open during construction
- Potential temporary minor increases in travel time for users of public transport due to the addition of construction vehicles on the road network.

Sydney Metro (as the proponent) is currently building the approved project on behalf of and pursuant to arrangements with Western Sydney Parklands Trust. Construction started in December 2020 and has an anticipated duration of 13 months.

1.2 The proposed change

As a result of continued design development and detailed construction planning, Sydney Metro have identified the opportunity to utilise the excess spoil generated by the Sydney International Speedway construction site by delivering the spoil offsite to nearby construction projects, including the Eastern Creek Precast Facilities. The Eastern Creek Precast Facilities construction site is located at Lenore Drive, Eastern Creek, about five kilometres west of the approved project.

The Eastern Creek Precast Facilities have been assessed within a Review of Environmental Factors, including an Addendum Report, in February 2021 (Sydney Metro, 2021). Planning approval was received on 11 March 2021 and construction of the Eastern Creek Precast Facilities is proposed to commence in early 2021 and be completed by the end of 2022.

This additional spoil being transferred would be used during construction as fill material. This would result in about 300 heavy additional vehicle movements.

The proposed change is detailed in Section 3.

1.3 Purpose and scope of this memorandum

The purpose of this memorandum is to identify and assess the potential transport and traffic impacts that may result from the proposed change, in addition to the approved project construction (referred to as cumulative traffic movements in this memorandum). The impacts are then compared with the identified potential transport and traffic impacts of the approved project. Recommended management and mitigation measures to minimise these impacts have been provided.

The potential transport and traffic impacts for the import of spoil to the Eastern Creek Precast Facilities has been assessed within a separate memorandum, in accordance with the Eastern Creek Precast Facilities planning approval.

1.4 Structure of this memorandum

This technical memorandum is structured as follows:

- Section 2 describes the assessment methodology

- Section 3 describes the proposed change
- Section 4 details the existing transport and traffic environment
- Section 5 provides an assessment of the potential transport and traffic impacts of the proposed changes using a cumulative construction scenario
- Section 6 identifies proposed transport and traffic management and mitigation measures.

2. Assessment methodology

2.1 Overall assessment approach

To assess the potential impacts of the proposed change on the transport and traffic network, the following methodology has been used to identify and, where possible, quantify the following:

- **Potential impacts on road network performance** – assessed through the use of traffic modelling (refer to Section 2.2) to determine the performance of the road network against performance indicators (refer to Section 2.2.1). This has been done with and without vehicles associated with the proposed spoil transfer, and the concurrent construction of the Sydney International Speedway.
- **Potential impacts on parking, property access, public transport, pedestrians and cyclists** – assessed through an analysis of existing provisions and a comparison with provisions during construction.

2.2 Traffic modelling approach

To assess the potential impacts of the proposed change on road network performance, traffic modelling has been undertaken of the proposed construction vehicle route between the Sydney International Speedway site and the nearest arterial road network.

The approach to traffic modelling undertaken for this assessment aligns with the *Traffic Modelling Guidelines* (Roads and Maritime, 2013) and the previous approach used to assess potential impacts of the Sydney International Speedway. It includes the following broad steps:

- Development of calibrated and validated single intersection base models (validated against Google typical traffic data) to align with existing operational conditions along the proposed construction vehicle route
- Application of anticipated construction traffic demands to the base models to enable the identification of potential impacts on road network performance. It is noted that the year of peak construction activity associated with the proposed change is 2021 (i.e. the same year as the base models).

Models were developed using the SIDRA INTERSECTION 9 traffic modelling software package. SIDRA INTERSECTION 9 is a micro-analytical tool for evaluation of intersection performance mainly in terms of capacity, level of service and a wide range of other performance measures such as delay, queue length and stops for vehicles and pedestrians, as well as fuel consumption, pollutant emissions and operating cost.

The traffic modelling was undertaken for the morning peak (7.00 am to 8.00 am) and evening peak periods only (3.00 pm to 4.00 pm) for the intersections considered in this assessment. The peak traffic periods represent a worst-case scenario as during these periods the road network experiences the

maximum background traffic demand and the available spare capacity of the road network is at its most limited.

It is noted that the peak hours considered in this assessment are different to the construction peak periods assessed as part of the approved project. This is because the assessment of the approved project considered a different set of intersections with the peak period determined by the times at which vehicle trips generated during construction were anticipated to be the greatest. Furthermore, the assessment of the approved project is based on traffic volume surveys undertaken in February 2020 whereas this assessment is based on more recent data from March 2021 (discussed further in Section 4.2). However, the methodology used to assess the proposed change is consistent with the standard approach for this type of assessment and that used for the approved project. Both assessments consider the worst case scenarios, allowing for comparisons to be made between the resulting predicted potential impacts.

2.2.1 Performance indicators

The performance of a road network is largely dependent on the operating performance of intersections, which form capacity control points. The performance indicators that are reported for this assessment include:

- Intersection Level of Service – based on criteria outlined in Table 2-1 and defined in the *Guide to Traffic Generating Developments* (Roads and Traffic Authority, 2002). The average delay assessed for signalised intersections is for all movements. The average delay assessed for priority (sign-controlled) intersections is for the worst movement and is expressed in seconds per vehicle.
- Maximum queue length on each approach (in metres).

Table 2-1 Intersection Level of Service criteria

Level of Service	Average delay per vehicle (seconds/vehicle)	Traffic signals and roundabouts
A	Less than 15	Good operation
B	15 to 28	Good with acceptable delays and spare capacity
C	29 to 42	Satisfactory
D	43 to 56	Operating near capacity
E	57 to 70	At capacity; at signals, incidents will cause delays Roundabouts require other control mode
F	Over 70	Extra capacity required

Source: Guide to Traffic Generating Developments (Roads and Traffic Authority, 2002)

It is generally accepted that when intersection performance falls to Level of Service E during peak periods, investigations should be initiated to determine if suitable remediation can be provided. However, limited road capacity and high demand mean that Level of Service F is regularly experienced by motorists, particularly during peak periods.

3. The proposed change

As described in Section 1.2, Sydney Metro is proposing to transport spoil between the Sydney International Speedway construction site and the Eastern Creek Precast Facilities construction site, for use during construction as fill material. This would result in additional vehicle movements associated with spoil transfer, about 300 one-way heavy vehicle movements spread across standard construction hours (between 7:00 am to 6:00 pm), which equates to approximately 28 one-way heavy vehicle movements per hour. These facilities are located at Lenore Drive, Eastern Creek, about five kilometres west of the approved project.

The proposed haulage route for the proposed spoil transfer would be about nine kilometres in length, along the roads listed below, shown in Figure 3-1.

- Sydney International Speedway site to Ferrers Road
- Ferrers Road to Chandos Road
- Chandos Road to Wallgrove Road
- Wallgrove Road to M7 Motorway and M4 Motorway
- M4 Motorway to Erskine Park Road
- Erskine Park Road to Lenore Drive
- Lenore Drive to the Eastern Creek Precast Facilities site along the temporary haul road (and once complete, the upgraded and extended Archbold Road).

For the purposes of this assessment, traffic modelling has been undertaken for the route between the Sydney International Speedway site and the nearest arterial road network only, for comparison against the approved project. This is shown as the Assessment area on Figure 3-1 and includes:

- Sydney International Speedway site to Ferrers Road
- Ferrers Road to Chandos Road
- Chandos Road to Wallgrove Road.

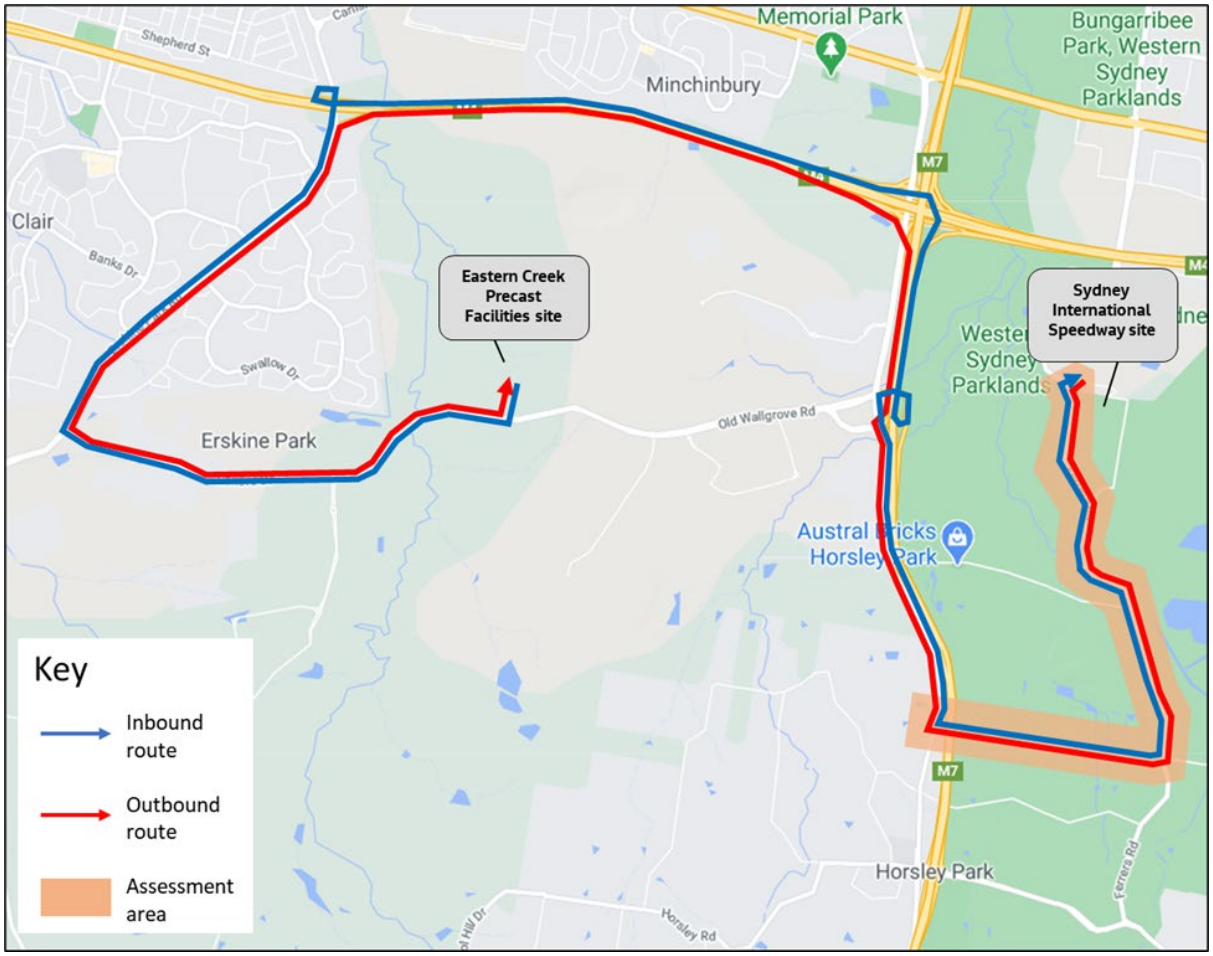

Figure 3-1 Proposed spoil haulage route

The haulage route associated with the proposed change would be used for about three months in mid-2021. As such, 2021 has been used as the construction assessment year.

Site access to and from the Sydney International Speedway site would be via the existing intersection with Ferrers Road.

3.1 Cumulative traffic movements

The assessment of the transport and traffic impacts of the proposed change considers the traffic movements required for both the approved project and for the proposed change, as construction vehicles not associated with the proposed spoil transfer would also travel along parts of the haulage route for the proposed change:

- Concurrent construction vehicles would include eight heavy vehicles spread across standard construction hours, which equates to approximately one heavy vehicle per hour
- These vehicles would also travel via the Ferrers Road / Chandos Road intersection
- Light vehicles would also be generated as part of construction of the Sydney International Speedway and would occur between 6:00 am to 7:00 am and 5:00 pm to 6:00 pm. Light vehicles between 6:00 am to 7:00 am would not coincide with vehicles generated by the proposed spoil

transfer. Light vehicles between 5:00 pm to 6:00 pm would coincide with vehicles generated by the proposed spoil transfer. However, these vehicles have not been assessed as this period does not coincide with the worst-case scenario where the road network experiences the maximum background traffic demand and the available spare capacity of the road network is at its most limited.

An overview of the cumulative construction traffic generated by both the proposed change and construction of the approved project is shown in Table 3-1.

Table 3-1 Cumulative construction traffic summary

Project	Daily one-way heavy vehicle movements	Peak one-way heavy vehicle volumes
Spoil transfer (the proposal)	300	28
Sydney International Speedway construction	16	2
Total	**316**	**30**

4. Existing transport and traffic environment

4.1 Road network overview

The existing road network within the assessment area (see Figure 3-1) includes:

- Wallgrove Road and the M7 Motorway run in a north-south direction and are designated as tertiary and primary freight routes, respectively.
    - The M7 Motorway carries high volumes of freight vehicles and is a primary freight route that provides access interstate and to strategically important ports, airports, industrial areas, freight terminals, and intermodal terminals and hubs.
    - Wallgrove Road is also a primary freight route that carries high volumes of freight vehicles and provides connections to the local road network and the lower-order elements of the State Road system.
- At the eastern end of the haulage route, Ferrers Road is a single carriageway road that connects Brabham Drive / Peter Brock Drive in the north and The Horsley Drive in the south. The road operates with a signposted speed limit of 60 kilometres per hour and provides access to the Sydney International Speedway site.
- Chandos Road is a two-lane, single carriageway road which connects Trivet Street, Wetherill Park in the east with Wallgrove Road in the west. The road operates with a signposted speed limit of 50 kilometres per hour. The eastern end of Chandos Road continues as Trivet Street, and the intersection of Chandos Road and Wallgrove Road is controlled by a stop sign with priority given to vehicles on Wallgrove Road.

4.2 Traffic data sources

To inform the assessment of existing and future road network performance, traffic survey data from February 2020 was used as a starting point and adjusted for consistency with SCATS detector count data collected between 1 March 2021 and 7 March 2021, inclusive.

The modelled intersections and data sources are shown in Table 4-1 and shown graphically in Figure 4-1.

Table 4-1 Modelled intersections and data sources

Number	Intersection	Intersection type	Data source
1	Ferrers Road / Chandos Road	Roundabout	February 2020 traffic survey, adjusted for consistency with March 2021 SCATS detector counts
2	Wallgrove Road / Chandos Road	Stop sign-controlled	Balancing with March 2021 SCATS detector counts and February 2020 traffic survey

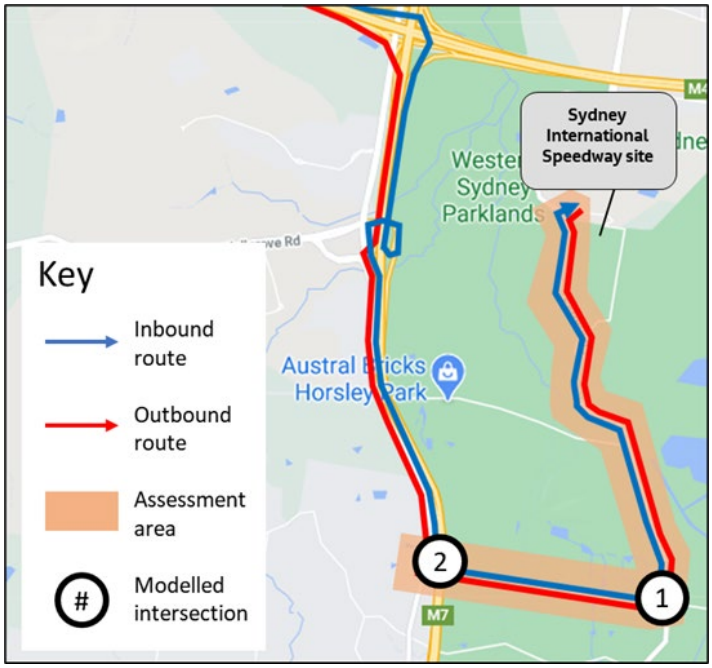

Figure 4-1 Modelled intersections

4.2.1 Peak weekday and morning and evening peak hours

The peak weekday, as well as the peak morning and evening peak hours across the haulage route were determined. This was done by summing the peak period traffic volumes of signalised intersections across the entire haulage route over the week. From this the weekday and morning and evening peak hours were calculated from this total sum. As shown in Figure 4-2 and Figure 4-3, the results are:

- Peak weekday – Wednesday
- Morning peak hours – 7:00 am to 8:00 am
- Evening peak hours – 3:00 pm to 4:00 pm.

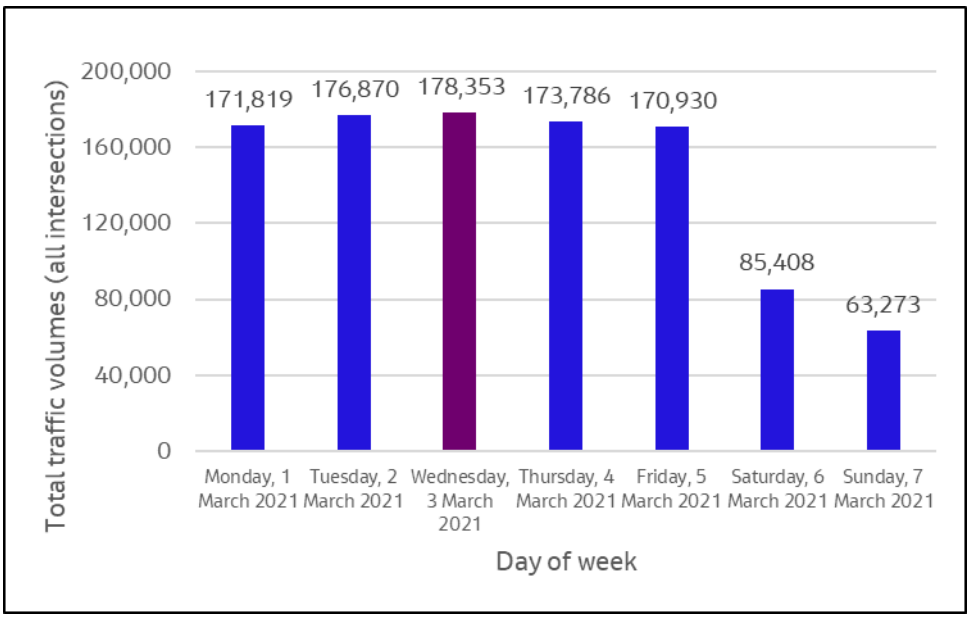

Figure 4-2 Peak weekday

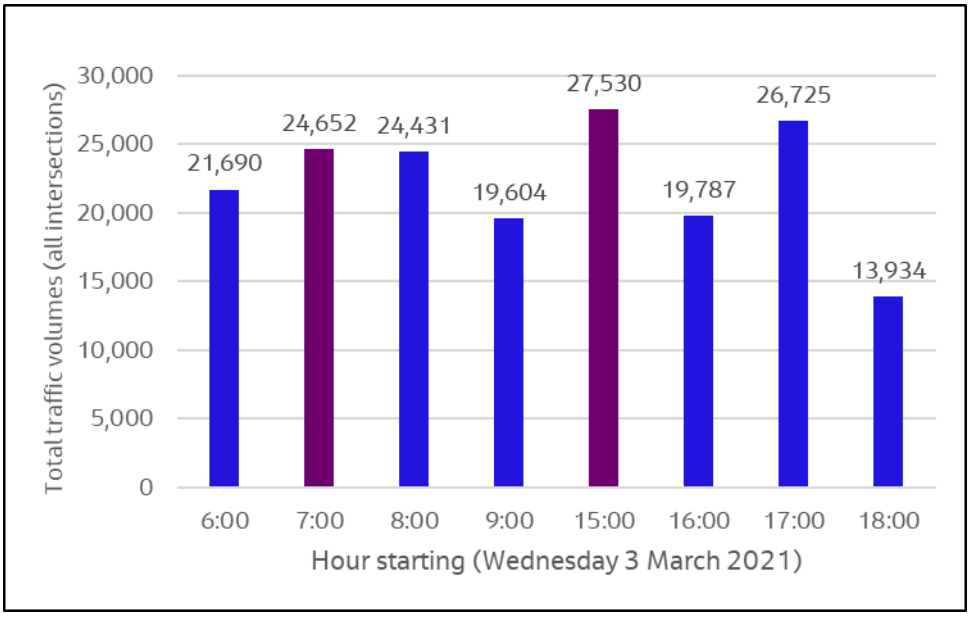

Figure 4-3 Morning and evening peak hour

4.3 Traffic volumes and patterns

The M7 Motorway is a limited-access high-speed road and carries high traffic volumes. Elsewhere on the arterial and local road network, traffic volumes are highest on Wallgrove Road, which carries over 900 vehicles per hour in each direction during the peak hours. Traffic volumes are also high on Ferrers Road, which carries between 740 and 960 vehicles per hour in each direction. Traffic volumes on all other roads near the proposal are substantially lower.

Approximate peak hour midblock volumes on key roads within the vicinity of the proposal are shown in Table 4-2.

Table 4-2 Existing peak hour traffic volumes by direction (Wednesday 3 March 2021)

Road	Direction	Morning peak hour volume (veh / hr)	Evening peak hour volume (veh / hr)
Wallgrove Road (south of Mini Link Road)	Northbound	970	900
	Southbound	1,260	1,330
Chandos Road (east of Wallgrove Road)	Eastbound	500	140
	Westbound	60	160
Ferrers Road (north of Chandos Road)	Northbound	800	840
	Southbound	740	960

Source: SCATS count data (Transport for NSW, March 2021), traffic surveys (Matrix Traffic and Transport Data, February 2020)

4.4 Existing intersection performance

As detailed in Section 2.1, traffic modelling was completed to ascertain the existing performance of key intersections during the morning and evening peak hours on the proposed construction haulage route. The results are presented in Table 4-3 and represent the performance of the intersections in the absence of vehicles associated with the proposed spoil transfer and the construction of Sydney International Speedway.

Modelled intersection performance indicates that the following intersections perform at Level of Service E or F:

- Ferrers Road / Chandos Road during the evening peak hour.
- Wallgrove Road / Chandos Road during the morning and evening peak hours.

The performance of Ferrers Road / Chandos Road during the evening peak hour is due to the intersection not being signalised where the worst movement is reported, which corresponds to vehicles from the east approach. High delays for this movement are due to high traffic volumes from the east approach of the roundabout. This performance is also identified in Google typical traffic data as shown in Figure 4-4.

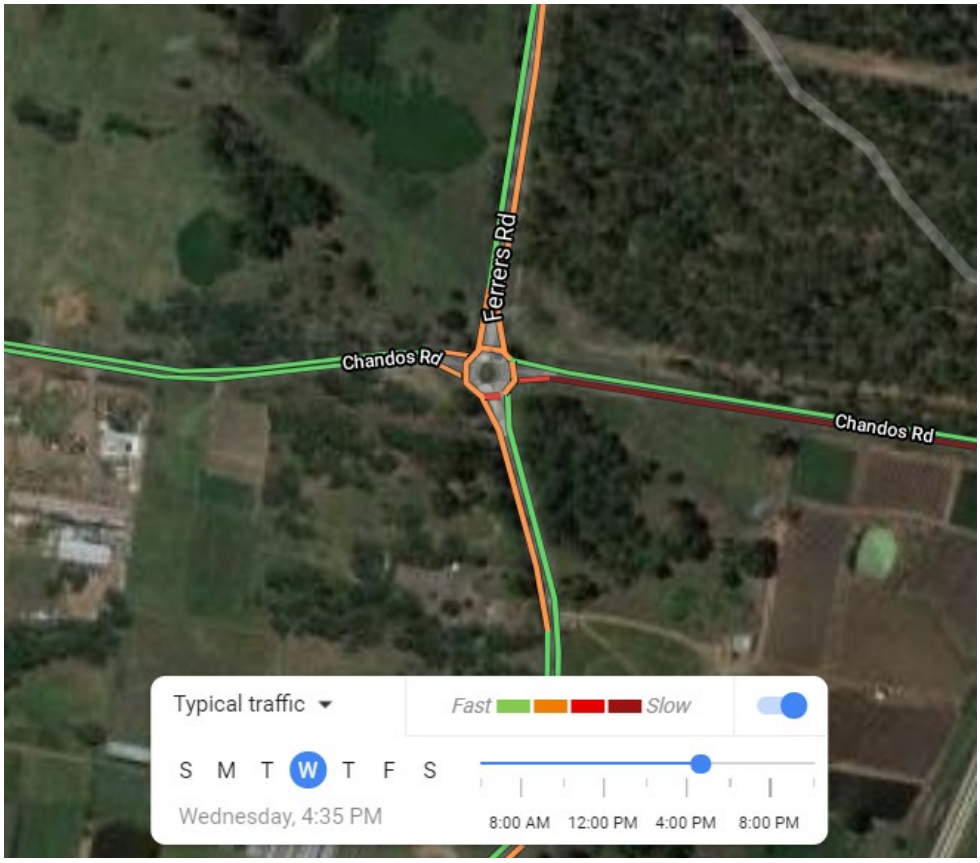

Figure 4-4 Congestion on the east approach of the Ferrers Road/Chandos Road intersection on a typical Wednesday evening peak hour

Source: Google traffic data (March 2021)

The performance of Wallgrove Road / Chandos Road is due to the intersection being unsignalised where the worst movement is reported, which corresponds to vehicles turning out of Chandos Road onto Wallgrove Road. Chandos Road is a minor road and therefore vehicles from Chandos Road must give way to the high volume of vehicles travelling on Wallgrove Road. This performance is also identified in Google typical traffic data as shown in Figure 4-5.

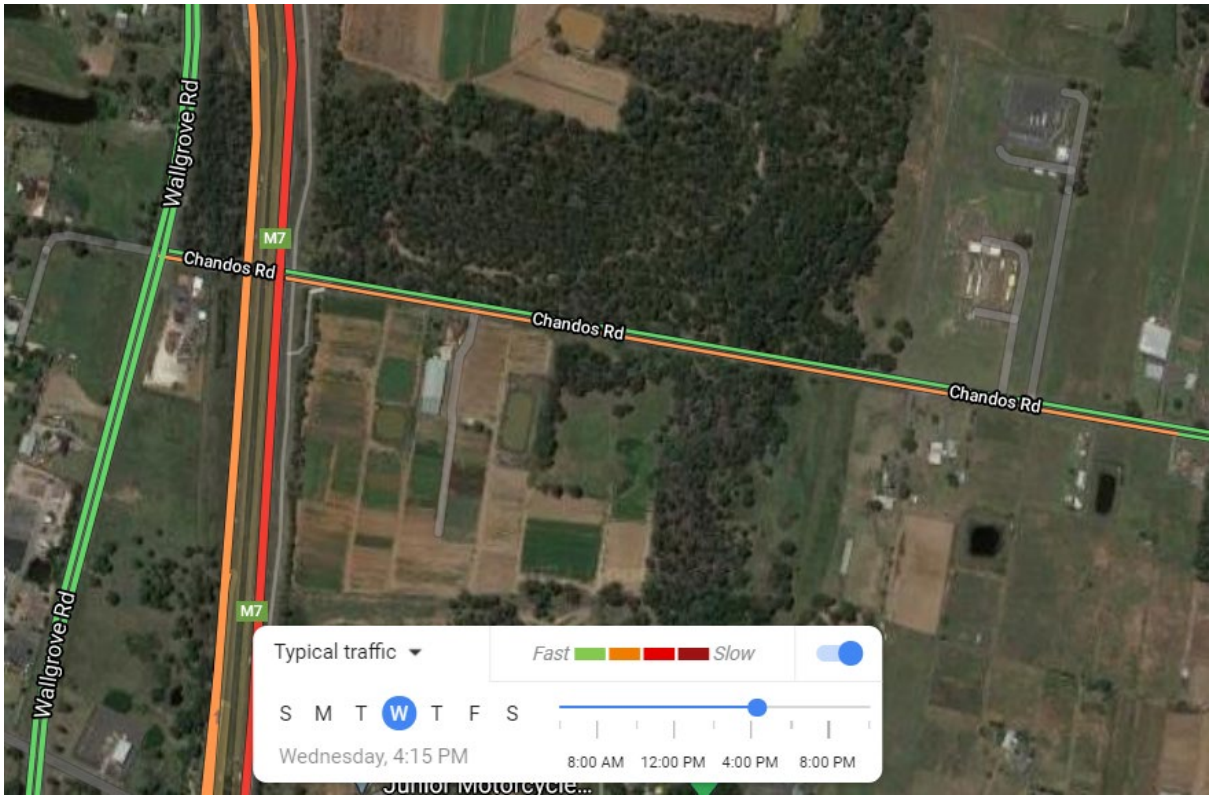

Figure 4-5 Congestion on the east approach of the Wallgrove Road/Chandos Road intersection on a typical Wednesday evening peak hour

Source: Google traffic data (March 2021)

Table 4-3 Modelled peak hour existing intersection performance (2021)

Intersection and peak hour	Intersection throughput (veh/hr)	Average delay (sec/veh)	Level of Service	Maximum queue length by directional approach (m)	
Ferrers Road / Chandos Road					
Morning peak hour (7:00 am to 8:00 am)	2,120	24	B	NB	35
				WB	15
				SB	150
				EB	90
Evening peak hour (3:00 pm to 4:00 pm)	2,070	>100	F	NB	40
				WB	290
				SB	65
				EB	10

Intersection and peak hour	Intersection throughput (veh/hr)	Average delay (sec/veh)	Level of Service	Maximum queue length by directional approach (m)	
Wallgrove Road / Chandos Road					
Morning peak hour (7:00 am to 8:00 am)	2,430	85	F	NB	70
				WB	10
				SB	<5
				EB	-
Evening peak hour (3:00 pm to 4:00 pm)	2,430	>100	F	NB	15
				WB	180
				SB	<5
				EB	-

4.5 Public transport network

There are no train stations located near the assessment area. No bus routes or bus stops are located along Ferrers Road or Chandos Road.

Route 738 is a loop service between Mount Druitt and Horsley Park and operates to the west of the assessment area along Wallgrove Road. Route 738 operates at a frequency of two buses per hour during the weekday morning and evening peak periods. Bus stops servicing route 738 are located on Wallgrove Road.

4.6 Active transport network

Pedestrian activity along most of the haulage route is low given the adjacent industrial and low-density residential land uses present. Formal pedestrian and cycling facilities are not provided on Ferrers Road or Chandos Road.

5. Potential impacts

5.1 Impacts on road network performance

Intersection performance results under the '2021 without construction' (without cumulative vehicles associated with construction) and '2021 with construction' (with cumulative vehicles associated with construction) scenarios are summarised in Table 5-1 for the morning and evening peak hours.

The only intersection that was previously assessed as part of the haulage route for the approved project is the Ferrers Road / Chandos Road intersection. The assessment of the approved project predicted that during construction the intersection would continue to operate at the same Level of Service (B) and potential impacts would be limited to potential temporary minor impacts on road network performance.

This assessment of the proposed spoil haulage has predicted that, due to additional construction traffic, the Ferrers Road / Chandos Road intersection would experience a deterioration in Level of Service from B to C during the morning peak hour (refer Table 5-1). However, despite this predicted

change, the intersection would continue to operate at a satisfactory Level of Service and is therefore a potential temporary minor impact, consistent with the impact identified for the approved project.

The Wallgrove Road / Chandos Road intersection was not part of the assessment within the Sydney International Speedway Environmental Impact Statement and Amendment Report and any potential impacts are therefore new. The modelled intersection performance with cumulative construction traffic (including the proposed spoil transfer) indicates that these intersections would continue to operate at the same Level of Service (F)(as shown in Table 5-1).

Whilst there is no change in Level of Service (F). The model has predicted increases in delay and queuing on the east approach of the intersection that would result in potential temporary moderate impacts. As discussed in Section 4.4, the existing performance is because Chandos Road is a minor road and therefore vehicles from Chandos Road must give way to vehicles travelling on Wallgrove Road. A potential alternate route to minimise impacts to the Wallgrove Road / Chandos Road intersection would be via Ferrers Road, The Horsley Drive and Wallgrove Road, which would allow construction vehicles to turn at signalised intersections.

Table 5-1 Modelled peak hour intersection performance during construction

Intersection and peak hour	2021 without cumulative construction					2021 with cumulative construction				
	Intersection throughput (veh / hr)	Average delay (sec / veh)	Level of Service	Maximum queue length by directional approach (m)		Intersection throughput (veh / hr)	Average delay (sec / veh)	Level of Service	Maximum queue length by directional approach (m)	
Ferrers Road / Chandos Road										
Morning peak hour (7:00 am to 8:00 am)	2,120	24	B	NB	35	2,160	29	C	NB	35
				WB	15				WB	15
				SB	150				SB	185
				EB	90				EB	110
Evening peak hour (3:00 pm to 4:00 pm)	2,070	>100	F[1]	NB	40	2,100	>100	F[1]	NB	40
				WB	290				WB	355
				SB	65				SB	70
				EB	10				EB	15
Wallgrove Road / Chandos Road										
Morning peak hour (7:00 am to 8:00 am)	2,430	85	F	NB	70	2,460	>100	F	NB	70
				WB	10				WB	110
				SB	<5				SB	<5
				EB	-				EB	-

Intersection and peak hour	2021 without cumulative construction					2021 with cumulative construction				
	Intersection throughput (veh / hr)	Average delay (sec / veh)	Level of Service	Maximum queue length by directional approach (m)		Intersection throughput (veh / hr)	Average delay (sec / veh)	Level of Service	Maximum queue length by directional approach (m)	
Evening peak hour (3:00 pm to 4:00 pm)	2,430	>100	F	NB	15	2,460	>100	F	NB	15
				WB	180				WB	375
				SB	<5				SB	<5
				EB	-				EB	-

[1]As discussed in Section 4.4, this performance is due to existing high traffic volumes from the east approach of the roundabout. As such, the impacts of cumulative construction traffic would be limited to a minor increase in delay.

5.2 Impacts on parking and property access

All short-term parking associated with the proposed spoil transfer would be accommodated on-site at the Sydney International Speedway site. Construction vehicles would not use surrounding local streets. Therefore, there would be no impact on parking during the proposed spoil transfer period.

Access to other properties within Western Sydney Parklands Precinct 5; Eastern Creek Motor Sports for emergency vehicles would be maintained at all times such that there would also be no impact on property access during construction.

5.3 Impacts on the public transport network

As there are no bus services or bus stops on Ferrers Road or Chandos Road, no impacts to the public transport network on these roads are expected.

However, the proposed haulage route would use Wallgrove Road, which is serviced by bus route 738. Bus stops on Wallgrove Road would not need to be closed or relocated during the proposed spoil transfer. As such, no impacts are anticipated on the operation of bus stops.

Minimal impacts on buses are expected and would be limited to a potential minor increase in travel time due to the additional construction vehicles on the road network. This is consistent with the potential impacts identified for the approved project (minimal impacts limited to potential minor increase in travel time).

5.4 Impacts on the active transport network

No impacts to the active transport network are expected as there are no formal pedestrian or cycling facilities on Ferrers Road or Chandos Road.

6. Management and mitigation measures

The approach for traffic management outlined in the Construction Environmental Management Framework (CEMF) for the approved project would also be applied to the proposed spoil transfer. The CEMF sets out the management measures to be adopted for construction, including construction traffic management, and provides a linking document between the planning approval documentation and the construction traffic management documentation to be developed by the Principal Contractors relevant to their scope of works. Construction Traffic Management Plans would be prepared in consultation with the relevant road authority, Transport Coordination and other relevant parts of Transport for NSW. The Construction Traffic Management Plan and would be endorsed by Transport Coordination (part of Transport for NSW) and approved by Transport for NSW.

A summary of management and mitigation measures is included in Table 6-1. These measures were previously identified as part of the approved project. No additional measures are proposed.

Moderate impacts are expected at the Wallgrove Road / Chandos Road intersection only. An alternate route, including Ferrers Road, The Horsley Drive and Wallgrove Road, would allow construction vehicles to turn at signalised intersections and would likely minimise impacts on the local road network as a result. The Sydney International Speedway Environmental Impact Statement (Sydney Metro, 2020a) identified that there is spare capacity at the Ferrers Road / The Horsley Drive intersection to accommodate additional construction traffic during the weekday morning and evening peak hours.

Table 6-1 Management and mitigation measures

No.	Impact	Management / mitigation measure
TTP1	Traffic-related incidents	In the event of a traffic-related incident, coordination would be carried out with Transport Coordination and / or the Transport Management Centre's Operations Manager.
TTP2	Property access for emergency vehicles	Access to properties within Western Sydney Parklands Precinct 5; Eastern Creek Motor Sports for emergency vehicles would be provided at all times.
TTP3	Construction site access and egress	All trucks would enter and exit the proposal site in a forward direction, where feasible and reasonable.
TTP4	Road network performance	Construction site traffic would be managed to minimise movements along Ferrers Road and the surrounding road network during peak periods.
TTP5	Parking availability for construction personnel	Parking for construction personnel would be provided on-site and not on surrounding local streets.

7. References

Department of Planning, Industry and Environment 2021, Instrument of approval for Sydney International Speedway

Sydney Metro 2020a, Sydney International Speedway Environmental Impact Statement

Sydney Metro 2020b, Sydney International Speedway Submissions Report

Sydney Metro 2020c, Sydney International Speedway Amendment Report