



Jason Maslen  
A/Team Leader  
School Infrastructure Assessments  
Department of Planning, Industry & Environment  
GPO Box 39  
SYDNEY NSW 2001

Dear Mr. Maslen,

**SSD 9343 Meadowbank Education and Employment Precinct Schools Project**

Thank you for your correspondence via Major Project portal (ref: PAE-812) on 18 October 2019, requesting Transport for NSW (TfNSW) to review and comment on the above. This letter is offered as a collective response from agencies of the Transport cluster including Roads and Maritime Services and Sydney Trains.

The proposal seeks development approval for an integrated school building with a primary school wing and a high school wing that will accommodate the relocation of Meadowbank Public School and Marsden High School. The proposed development will form part of the Meadowbank Education and Employment Precinct.

The documentation in support of the proposal has been reviewed and comments and recommendations are provided in **Attachment A**.

Given that the subject site is in close proximity to the rail corridor, it is requested that conditions of consent (as provided in **Attachment B**) be included for protection of the rail assets. The applicant is encouraged to consult with Sydney Trains regarding these suggested conditions.

It is suggested that the proponent engages with the Transport cluster agencies regarding the matters raised prior to finalising the Response to Submissions.

Thank you again for the opportunity of providing advice for the above development application. If you require any further information, please don't hesitate to contact the undersigned. I hope this has been of assistance.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Mark Ozinga'.

15/11/2019

**Mark Ozinga**  
Principal Manager, Land Use Planning & Development  
Customer Strategy & Technology

CD19/08471

### Bus route details

#### *Comment:*

Bus route 534 has been combined with route 533 to provide a combined frequency of 15 minutes for both AM and PM peak periods and 30 minutes outside of the peak.

#### *Recommendation:*

The report should be updated accordingly.

### Proposed bus zones on Rhodes Street and MacPherson Street

#### *Comment:*

- According to Section 9.6, the proposed primary school bus zone on Rhodes Street is planned to service two buses. It is advised that the proposed bus zone length of 20m would not be adequate for two buses. Notwithstanding, data presented in Table 7.3 indicates that 0% of primary school students use bus for regular travel to and from school.
- The mode share for the secondary school indicates 26% of students arriving by bus, for which a bus zone is proposed on MacPherson Street. There is a list of local road improvements proposed to support the school bus routes. Further details are requested to confirm the feasibility of these improvement works and design of these facilities.

#### *Recommendation:*

As part of the Response to Submissions (RtS), swept path analysis should be provided for buses on all streets between Victoria Road and the proposed bus zone locations to ensure the surrounding streets are capable of accommodating the future school bus services. Turnaround facility on Rhodes Street with access for all services via Hermitage Road should also be considered to better facilitate the future traffic generating from the school sites. The proposed length and allocation to Primary school of a bus zone on Rhodes Street should also be further reviewed for servicing the proposed two school bus stops.

Clarification should also be provided on how the works will be delivered.

### Proposed pick-up/drop-off facilities and associated impact to existing on-street parking

#### *Comment:*

As indicated in Table 3.5, kerb-side parking on Rhodes Street, Hermitage Road and Mellor Street are fully utilised by 9am, which coincides with the peak school drop-off period.

The proposed pick-up facilities on the southern side of Rhodes Street and additional bus zone along the southern side of Macpherson Street will displace the existing on-street parking demand to adjoining streets (i.e. Hermitage Road, Mellor Street) for which existing demands are between 82% to 100% during the same peak period (i.e. 9am to 2pm). There is no quantitative assessment of pick-up/drop-off demand generating from the school project on the proposed facilities.

#### *Recommendation:*

The proposal to stagger the school start and finish time to better facilitate distribution of school demand on the transport network is supported. As part of the RtS, quantitative assessment of pick-up/drop-off demand generating from the school on the proposed facilities should be provided to better inform the required sign posing on Rhodes Street and Macpherson Street. A signage and lane marking lane plan complementing the proposed pick-up/drop-off arrangement should also be provided for further review.

### Car parking demand and associated impact to surrounding on-street parking

#### *Comment:*

There are 60 spaces proposed for 215 staff (total of primary and secondary schools). Mode share for staff arriving by car at the existing schools has been surveyed at 75%, which translates to an expected demand of some 150 spaces. The forecast staff travel mode by car is stated to reduce to 40%, which is based on a list of assumptions outlined in section 7.1.1. The assumptions have not been supported by any supporting evidence. Without the significant change in travel patterns, there is likely to be unmet demand for staff parking which would place additional demand on the surrounding roads and compete with other workers and users in the area for pick-up/drop off spaces.

#### *Recommendation:*

Further work should be undertaken to provide evidence to support the mode share changes for example, consideration could be given to undertake a travel preference survey with the existing school staff to understand whether the proposed mode shift could be achieved through the assumptions and initiatives as suggested in the report i.e. assume more staff using rail due to school relocation, reduced parking, etc. Further sustainable travel incentives should be considered if necessary. In addition, further consideration should be given to increasing staff parking to meet any unmet demand not achievable through the travel demand initiatives.

### Pedestrian connectivity

#### *Comment:*

The school catchment analysis prepared by Frank Turquoise Group indicates a potential of 27.8% of staff and 52.6% of students live within an 800m catchment of the proposed school, which could potentially use buses to reach the school. 800m is considered to be within walking distance. Existing bus services primarily stop along Victoria Road. The current report provides no clear indication of how pedestrian accessibility and footpath requirements have been considered for access between Victoria Road bus stops and the school entrance.

#### *Recommendation:*

Consideration should be given to implement measures to improve pedestrian facilities to ensure safe and efficient paths of travel for students, especially for those students needing to traverse the T9 railway line and Victoria Road.

### Mode share of high school

#### *Comment:*

Survey of the existing high school indicates a mode share (for students) of 22% and 14% for walk and cycle respectively. This mode share has been assumed for the proposed high school. However, the new school site is located to the east of the T9 Main Northern railway line and to the south of Victoria Road both of which present increased separation from the majority of the student catchment. The proponent has suggested that the anticipated mode share for these users remain largely unchanged.

#### *Recommendation:*

The proponent should review the analysis to demonstrate that the existing mode share for active transport can be maintained for the new school. This may require implementation of measures to ensure that walking and cycling to school is efficient and safe.

### **Travel options between school population and the new school site**

#### *Comment:*

Most of the school population (staff and students) of the existing Marsden High School lives on the western side of the T9 railway and on the northern side of Victoria Road. The new school will result in changed travel patterns which will increase the propensity for the need for students to traverse those regionally significant transport corridors. As the high school will be relocated to the eastern side of the railway and southern side of Victoria Road, more consideration should be given to how to improve the travel options between the school population and the new school site.

#### *Recommendation:*

As the high school will be relocated to the eastern side of the T9 railway and southern side of Victoria Road, further assessment should be undertaken on how to improve the travel options (i.e. combination of bus and access to rail services) between the school population and the new school site which is in proximity of Meadowbank Station.

### **Mode share of primary school**

#### *Comment:*

The cycling mode share for primary school students at the existing school is reported as 0%. The proponent expects that the mode share of travel by bicycle to the new school to be 10%.

There are limited cycling facilities located within the transport network surrounding site (section 3.9), and the distance between the new and existing primary school sites are less than 800m apart and are on the same side of the T9 railway and Victoria Rd. Further, the assumed increase in mode share for bicycle trips corresponds to a similar drop in car mode share. There does not appear to be a strong justification for this assumed travel change.

#### *Recommendation:*

Further work needs to be undertaken to justify the assumptions regarding the changed travel behaviours – especially the bicycle mode.

### **Parking Facilities**

#### *Comment:*

There is no indication of whether E-charging facilities have been provided. Future Transport 2056 supports initiatives to encourage use of electric vehicles.

#### *Recommendation:*

Consideration could also be given to E-transportation charging facilities at the school parking area.

### **Initiative for encouraging public transport use**

#### *Comment:*

The report mentions that some students will not be eligible for the School Student Transport Scheme (SSTS) and therefore less likely to travel by public transport.

#### *Recommendation:*

The School Travel plan should investigate alternatives to encourage the use of public transport in particular with consideration of the proximity of Meadowbank Station.

### Road Safety

#### *Comment:*

There are proposed pedestrian crossing facilities and new vehicle access on Rhodes Street and Macpherson Street that would result in a change of traffic condition upon the completion of the school project.

#### *Recommendation:*

An independent Detailed Design Road Safety Audit (RSA, refer to NSW Centre for Road Safety Guidelines for Road Safety Audit Practices) of the proposed pedestrian facility improvements and bus zone arrangements on Rhodes Street and Macpherson Street should be conducted, prior to issue of construction certificate. The proposed design shall address any deficiencies identified within the RSA.

### Modelling assumptions

#### *Comment:*

- Appendix A.1.2 indicates gap acceptance calibration has been used to inform intersection assessment (acceptance factor from  $1.0 > 0.5$ ). This assumes that all drivers are willing to accept smaller gaps to turn at intersections. Justification has not been provided for the departure from SIDRA recommended practice.
- The traffic report acknowledges that the existing Meadowbank Primary School is in the same vicinity as the proposed new school and states that some of the car trips generated by the existing school will be redistributed to the new site at the year of opening. The report does not clearly document how the assumptions regarding trips from the existing schools and additional school trips (from increased enrollments) have been distributed between modes and assigned to the network.
- There is some discussion about how existing and future additional trips have been assigned to the network (mode share, and traffic assignment). However, it is not clear how existing primary school trips (in particular) are assigned to the network. It appears that only the additional trips from new enrollments have been assigned to the local network surrounding the new school site. While this might be acceptable to understand the impacts on the regional network, it would understate the impacts on the local network near to the proposed school site.
- The same comment above applies to the approach taken for the assumptions related to the secondary school trips.
- Table 7.7 presents anticipated number of person trips during peak hour and per day for primary school students. For the car travel mode, the sum of AM and PM peak hour person trips is greater than the total number of person trips per day.
- Figure 9.1 SIDRA Modeling layout shown for Bowden Road and Stone Street shows stop lines present on all approaches. Bowden Road should not have any stoplines present. The SIDRA network layout also does not reflect street parking and bus stops on the kerbside.
- Table 9.1 presents the anticipated additional peak hour traffic generation of the proposed schools which makes reference to the anticipated car trips discussed in Section 7. It is noted that the anticipated car trips are derived from the anticipated mode shares, peak hour person trips and car occupancy. Fundamentally, the peak hour person trips are based upon the number of students/staffs either arriving or departing the schools at AM/PM peak hour, i.e. inbound or outbound movement only. It is therefore not evident that the anticipated car trips discussed in Section 7 is a

## Attachment A – Comments on SSD 9343

representation of two-way trips and compatible for direct application of the directional split in Table 9.1.

### *Recommendation:*

- Provide justification for the adopted gap acceptance factor in accordance with the methodology for calibrating gap acceptance per SIDRA recommended practice.
- Clarification is required on the methodology used to understand the distribution of trips as outlined in the comments above. Further assessment may be required on the local network surrounding the proposed school site.
- SIDRA model layout should accurately represent the present and future conditions.
- The total trips and directional split (inbound and outbound traffic) shown in Table 9.1 needs to be clarified in reference to the above discussed comment.

## Road Network Assessment

### *Comment:*

The current report only provides summary of the intersection performance of the assessed scenarios.

### *Recommendation:*

Further details of the SIDRA modelling should be attached as Appendix to the report including:

- layouts of the networked intersections and standalone intersections
- SIDRA result summaries

The applicant is requested to provide electronic copies of the SIDRA network files to Roads and Maritime Services for review and take into account of comments, if any, before finalising the RtS.

## Travel Plan

### *Comment:*

A School Travel Plan has been provided as part of the EIS that discusses the objectives and possible travel demand management measures to be implemented. On this note it is recommended that the Travel Plan should:

- consider including training courses for students on safe walking, riding and public transport use as the Student Targeted Actions;
- consider installation of next service departure screens for T9 rail services (and bus services if possible e.g. Victoria Road bus services) in the lobby to encourage public transport use; and
- develop and deliver a robust communications strategy for the Travel Plan to users of the site prior to occupation which includes key messages on how to travel including prioritising public and active transport as well as road safety messages.

Many of the proposed actions (e.g. develop map showing public transport routes...) should be rolled up into a high quality Travel Access Guide which provides staff and students and visitors with information on site access by all modes as well as advice and links to travel planning tools, Opal and contactless payments. This should be distributed prior to occupation.

In addition, the following detail should be reviewed/amended:

- One of the Staff Targeted Actions under Public Transport suggest "Staff access to the Opal SSTS for up to two public transport trips per weekday". This is not

## **Attachment A – Comments on SSD 9343**

supported and it is requested that this item to be excluded from the list of actions.

### *Recommendation:*

Prior to occupancy, a comprehensive Travel Plan, taking into consideration the above suggestions, should be prepared in consultation with Council and TfNSW.

## **Attachment B – Conditions of Consent for Protection of Rail Assets**

Prior to the commencement of works, the Applicant shall prepare to Sydney Trains satisfaction the following documentation for written approval/certification:

1. Confirmation from a qualified Arborist confirming any proposed tree removal will not have an adverse impact on the rail corridor and the embankment stability.
2. Prior to the commencement of any works, appropriate fencing must be in place along the rail corridor to prevent unauthorised access to the rail corridor during construction works. Details of the type of fencing and the method of erection are to be to the satisfaction of Sydney Trains prior to the fencing work being undertaken.
3. The development shall have appropriate fencing fit for the future usage of the development site, including minimising risks from vandalism involving objects being thrown or inadvertently directed into the rail corridor, and prevent unauthorised access to the rail corridor. Prior to the issuing of an Occupation Certificate the Applicant shall liaise with Sydney Trains regarding the adequacy of any existing fencing along the rail corridor boundary or design and construction of new fencing. Details of the type of new fencing to be installed and the method of erection are to be to the satisfaction of Sydney Trains prior to the fencing work being undertaken.
4. Prior to the issuing of a Construction Certificate the Applicant must submit to Sydney Trains a plan showing all craneage and other aerial operations for the development and must comply with all Sydney Trains requirements. If required by Sydney Trains, the Applicant must amend the plan showing all craneage and other aerial operations to comply with all Sydney Trains requirements. The Principal Certifying Authority is not to issue the Construction Certificate until written confirmation has been received from the Sydney Trains confirming that this condition has been satisfied.
5. Prior to the commencement of works, the Applicant shall provide certification from a qualified Geotechnical and Structural Engineers stating that the proposed works are to have no negative impact on the embankment, rail corridor and associated rail infrastructure. The provision of a cut and fill plan for all land within 25m of the rail corridor shall be provided as a minimum with the certification. If deemed by Sydney Trains that the works will or potentially have a negative impact, the Applicant shall provide the requested engineering documentation as advised by Sydney Trains for their endorsement.
6. No metal ladders, tapes, and plant, machinery, or conductive material are to be used within 6 horizontal metres of any live electrical equipment. This applies to the train pantographs and catenary, contact and pull-off wires of the adjacent tracks, and to any aerial power supplies within or adjacent to the rail corridor.
7. If required by Sydney Trains, prior to the issue of a Construction Certificate a Risk Assessment/Management Plan and detailed Safe Work Method Statements (SWMS) for the proposed works are to be submitted to Sydney Trains for review and comment on the impacts on rail corridor.
8. No work is permitted within the rail corridor (including airspace), or any easements which benefit Sydney Trains/RailCorp, at any time, unless the prior approval of, or an Agreement with, Sydney Trains/RailCorp has been obtained by the Applicant.
9. Prior to the issue of a Construction Certificate the Applicant is to engage an Electrolysis Expert to prepare a report on the Electrolysis Risk to the development from stray currents. The Applicant must incorporate in the development all the measures recommended in the report to control that risk. A copy of the report is to be provided to the Principal Certifying Authority with the application for a Construction Certificate.
10. Prior to the issue of a Construction Certificate, the Applicant shall provide an accurate survey locating the proposed development with respect to the rail boundary and rail



## Attachment B – Conditions of Consent for Protection of Rail Assets

infrastructure. This work is to be undertaken by a registered surveyor, to the satisfaction of Sydney Trains representative.

11. The proposed development is to comply with the deemed-to-satisfy provisions in the Department of Planning's document titled "Development Near Rail Corridors and Busy Roads- Interim Guidelines".
12. Prior to the issuing of a Construction Certificate, the following rail specific items are to be submitted to Sydney Trains for review and endorsement:
  - Machinery to be used during remediation and any ground works.
  - Demolition, excavation and construction methodology and staging
13. Excess soil is not allowed to enter, be spread or stockpiled within the rail corridor (and its easements) and must be adequately managed/disposed of.
14. During all stages of the development the Applicant must take extreme care to prevent any form of pollution entering the railway corridor. Any form of pollution that arises as a consequence of the development activities shall remain the full responsibility of the Applicant.
15. Sydney Trains or Transport for NSW (TfNSW), and persons authorised by those entities for the purpose of this condition, must be permitted to inspect the site of the development and all structures to enable it to consider whether those structures have been or are being constructed and maintained in accordance with the approved plans and the requirements of this consent, on giving reasonable notice to the principal contractor for the development or the owner or occupier of the part of the site to which access is sought.
16. Any conditions issued as part of Sydney Trains approval/certification of any documentation for compliance with the Sydney Trains conditions of consent, those approval/certification conditions will also form part of the consent conditions that the Applicant is required to comply with.
17. The applicant shall not at any stage block the corridor access gate on Rhodes Street, and should make provision for easy and ongoing 24/7 access by rail vehicles, plant and equipment to support maintenance and emergency activities.
18. Prior to commencement of works, the Applicant shall consult with Sydney Trains in facilitating appropriate emergency and maintenance access to the rail corridor from Rhodes Street.
19. Sydney Trains advises there is an 11kv and 33 kV High voltage Aerial Transmission Lines in near proximity to the proposed works. All works within 6 metres of the nearest transmission line conductor must comply with:
  - ISSC 20 – Guideline for the Management of Activities within Electricity Easements and Close to Electricity Infrastructure.
  - The Safe Approach Distances (SADs) in the Sydney Trains Document titled "SMS-06-GD-0268 – Working Around Electrical Equipment".
  - "WorkCover Code of Practice – Work Near Overhead Power Line (The Code)"
20. The Applicant must ensure that at all times they have a representative (which has been notified to Sydney Trains in writing), who:
  - oversees the carrying out of the Applicant's obligations under the conditions of this consent and in accordance with correspondence issued by Sydney Trains;
  - acts as the authorised representative of the Applicant; and

## Attachment B – Conditions of Consent for Protection of Rail Assets

- is available (or has a delegate notified in writing to Sydney Trains that is available) on a 7 day a week basis to liaise with the representative of Sydney Trains, as notified to the Applicant.
21. Without in any way limiting the operation of any other condition of this consent, the Applicant must, during demolition, excavation and construction works, consult in good faith with Sydney Trains in relation to the carrying out of the development works and must respond or provide documentation as soon as practicable to any queries raised by Sydney Trains in relation to the works.
  22. Where a condition of consent requires consultation with Sydney Trains, the Applicant shall forward all requests and/or documentation to the relevant Sydney Trains external party interface team. In this instance the relevant interface team is north interface and they can be *contacted via email on* [North\\_Interface@transport.nsw.gov.au](mailto:North_Interface@transport.nsw.gov.au)