SAMSA CONSULTING TRANSPORT PLANNING & TRAFFIC ENGINEERING

29th July 2022 Our Ref: *Nelson St Bridge review*

Sydney Metro L43, 680 George Street SYDNEY, NSW 2000

Attention: Sharon Moller

Dear Sharon,

NELSON STREET BRIDGE CLOSURE Review of Interchange Access Plan – Alternative Pedestrian & Cycle Access Assessment

BACKGROUND

The Sydney Metro project will deliver over 60 km of metro rail between Tallawong and Bankstown via the Sydney CBD. Sydney Metro City & Southwest includes the construction and operation of a new metro rail line from Chatswood, under Sydney Harbour through Sydney's CBD to Sydenham and on to Bankstown.

On 9 January 2017, the Minister for Planning approved the Sydney Metro City & Southwest Chatswood to Sydenham application as a Critical State Significant Infrastructure project (SSI 15_7400). As part of the approval, the demolition of the Nelson Street bridge was authorised to enable the delivery of the dive structures for Sydney Metro City and Southwest.

The Nelson Street bridge is located approximately 500m south of Chatswood. This study focussed on crossing points and travel adjacent to the North Shore rail line corridor. The study area is bound by Ellis Street to the north, Mowbray Road to the south, Orchard Road to the east and Pacific Highway to the west.

The need and opportunities for a walking and cycling connection across the North Shore and Sydney Metro rail line corridor in the vicinity of Nelson Street is required to be assessed. The subsequent assessment report investigates the following:

- Assessment of the existing and future pedestrian and bicycle rider movements across and adjacent to the railway corridor from Mowbray Road to Ellis Street.
- Development of recommendations addressing the need for a walking and cycling connection.
- Assessment of the demand along Frank Channon Walk and recognition of connectivity to the surrounding infrastructure network and possible extensions.

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REVIEW CONTEXT & SCOPE

The Interchange Access Plans (IAPs) to be prepared under the conditions of approval include specific requirements as detailed following.

Condition E95

The Proponent must in consultation with the TTLG review the need and opportunities for a pedestrian and cycle bridge across the rail corridor to replace the Nelson Street bridge. The review must be presented in the Interchange Access Plan(s) and the findings implemented by the Proponent.

Moreover, the following general requirements for Metro Stations are to be addressed in the IAPs.

Condition E92

The Proponent must develop an Interchange Access Plan for each station to inform the final design of transport and access facilities and services, including footpaths, cycleways, passenger facilities, parking, traffic and road changes, and integration of public domain and transport initiatives around and at each station. The Interchange Access Plan(s) must consider walking and cycling catchments and take into account:

- (a) Station access hierarchy consistent with the transport planning principles defined within the EIS.
- (b) Safe, convenient, efficient and sufficient access to stations and transfer between transport modes (including subterranean connections and the safeguarding of additional entrances in response to land use change and patronage demands).
- (c) Maintenance or improvement of pedestrian and cyclists' level of service within a justified proximity to stations.
- (d) Current transport initiatives and plans.
- (e) Opportunities and constraints presented by existing and proposed transport and access infrastructure and services.
- (f) Patronage changes resulting from land use, population, employment, transport infrastructure and service changes.
- (g) Integration with existing and proposed transport infrastructure and services.
- (h) Pedestrian, cycle, bus, taxi, vehicle and emergency vehicle access and parking infrastructure and service changes.
- (i) Legislative requirements and applicable guidelines.
- (j) Safety audits, including but not limited to a review of traffic facility and cycle changes to ensure compliance with Austroads design criteria.
- (k) Final design, infrastructure, management and service measures, and the level of access and service to be achieved for all users.
- (I) Contents of the Interchange Operations and Maintenance plan (IOMP) and operational management provisions for future operational requirements, including maintenance, security and management responsibilities.

The Interchange Access Plan(s) must be prepared in consultation with the Traffic and Transport Liaison Group (TTLG) and the Design Review Panel and must be supported by traffic and transport analysis. Where necessary, consultation must also be undertaken with major landholders adjoining station precincts. The Plan(s) must detail a delivery and implementation program, which must be provided to and agreed by the Secretary before commencement of permanent above-ground facilities at any station site. Condition E93

In developing the Interchange Access Plan(s), the Proponent must consider:

- (a) Traffic and accessibility design requirements.
- (b) Station Design and Precinct Plan(s) required by Condition E101.

As part of the Conditions, "Interchange Access Plans are required to be reviewed by a qualified traffic and transport professional, independent of the detailed design process for the CSSI, and having regard to the requirements of the approval" (Condition E96). This review is intended to satisfy Condition E96. Separate IAPs to be reviewed include those for Metro stations at Central, Pitt Street, Martin Place, Barangaroo, Victoria Cross, Crows Nest and Sydenham.

DOCUMENTS REVIEWED

The Interchange Access Plan (IAP) under review for the Nelson Street Bridge closure is as follows:

- Sydney Metro "Interchange Access Plan Alternative Pedestrian and Cycle Access Assessment, Response to Sydney Metro SSI 15_7400, Condition of Approval E95", 2 September 2019
- Sydney Metro "Nelson Street Bridge Removal Alternative Pedestrian and Cycle Access Assessment, Response to Sydney Metro SSI 15_7400, Condition of Approval E95", 29 July 2022

CONSULTATION

While no specific consultation was undertaken between the independent reviewer and the proponent, a review of the Traffic and Transport Liaison Group (TTLG) meeting minutes and other assorted consultation documents was undertaken (refer to *Appendix D* of the subject IAP).

It is noted that consultation has been undertaken (and is ongoing) by the proponent with RMS, TfNSW and Willoughby Council.

INDEPENDENT REVIEW

This independent review of the Nelson Street Bridge closure has been prepared against the Sydney Metro City and Southwest Chatswood to Sydenham CSSI conditions of approval E92, E93, E95 and E96. This review is a traffic and transport focused review of the study requirements.

Samsa Consulting uses an independent review rating system as shown in *Table 1* following. Where possible, suggestions are made as to how 'no evidence found' or 'insufficient' ratings may be rectified.

Rating	Explanation
No evidence found	The reviewer could not find any evidence that the study attempted to address this requirement
Insufficient	There was insufficient evidence, faulty logic, methodological flaws or other issues that the reviewer regarded as insufficient to satisfy the requirement without further evidence.
Satisfactory	The requirement was addressed and is considered to follow acceptable industry practices

Table 1: Peer Review Rating System

For ease of reading, the reviewer has also identified the significance of any 'no evidence found' or 'insufficient' evidence ratings to the outcomes of the planning and delivery of the project, its staging and in achieving integrated land use and transport outcomes – refer to *Table 2* following. It is noted that these ratings are based on professional judgement.

Significance	Explanation
Low	This non-conformance is unlikely to impact on the outcomes for the project and surrounding transport network or place. In some cases this may be as a result of the evidence or requirement based on strategies now superseded or that the requirement could be satisfied and addressed in subsequent planning stages or by others planning projects in the area.
Medium	This non-conformance is likely to diminish the quality of the transport network, place making and precinct outcomes in a way that would be challenging to rectify in subsequent stages of planning, project delivery or by other planning projects in the area.
High	This non-conformance is very challenging to address by other projects or in subsequent planning or delivery phases of the project or through the planning of the surrounding precinct. Its removal or lack of evidence is recognised to have serious consequences on place making, precinct development and transport network outcomes as a direct consequence and is recognised as a responsibility of this project. The reviewer has concerns about safety of customers, its ability to accommodate forecast growth, support and promote public transport or network reliability outcomes.

Table 2: Significance of Requirements Rated as 'Insufficient'

The findings of the independent review are detailed in *Table 3* following.

Table 3: Independent Review Findings

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ID	Requirement / Condition	Rating	Reason for Rating	Significance	Response / Comments	Action	Status	Category
E92	The Proponent must develop an Interchange Access Plan for each station to inform the final design of transport and access facilities and services, including footpaths, cycleways, passenger facilities, parking, traffic and road changes, and integration of public domain and transport initiatives around and at each station. The Interchange Access Plan(s) must consider walking and cycling catchments and take into account the following.	Satisfactory	Stand-alone IAP prepared reviewing the need and opportunities for a pedestrian and cycle bridge to replace the Nelson Street bridge.	Not applicable				
(a)	Station access hierarchy consistent with the transport planning principles defined in the EIS.	Satisfactory	Not relevant – no access to Metro station.	Not applicable				
(b)	Safe, convenient, efficient and sufficient access to stations and transfer between transport modes (including subterranean connections and the safeguarding of additional entrances in response to land use change and patronage demand).	,	Not relevant – no access to Metro station or modal transfer.	Not applicable				
(c)	The maintenance or improvement of pedestrian and cyclist's level of service within a justified proximity to stations.	Satisfactory	Although not in close proximity to a Metro station, the IAP focusses on the improved function and service for pedestrians and cyclists.	Not applicable				

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					For completion by Sydney Metro			
ID	Requirement / Condition	Rating	Reason for Rating	Significance	Response / Comments	Action	Status	Category
(d)	Current transport initiatives and plans.	Satisfactory	The IAP has considered current plans for the extension of Frank Channon Walk, bicycle / pedestrian path improvements along the northern side of the Mowbray Road rail overpass bridge and opportunities for the integration of these plans with the wider network.	Not applicable				
(e)	Opportunities and constraints presented by existing and proposed transport and access infrastructure and services.	Satisfactory	The IAP has considered current and proposed bicycle / pedestrian networks and strategies including how integration would occur with the future development of Council's proposed network infrastructure.	Not applicable				
(f)	Patronage changes resulting from land use, population, employment, transport infrastructure and service changes.	Satisfactory	Future pedestrian and cyclist demands have been assessed in a revised assessment of pedestrian and cyclist access, which is considered to be reasonable and adequately reflects the projected population and employment growth rates for the sub-region around the study area. The assessment is considered a reasonably conservative (high) estimate and would not have any significant impacts on future operations because the current mode share is relatively low to moderate.	Not applicable				

				For completion by Sydney Metro				
ID	Requirement / Condition	Rating	Reason for Rating	Significance	Response / Comments	Action	Status	Category
(g)	Integration with existing and proposed transport infrastructure and services.	Satisfactory	The IAP has considered current and proposed bicycle / pedestrian networks and strategies including how integration would occur with the future development of Council's proposed network infrastructure.	Not applicable				
(h)	Pedestrian, cycle, bus, taxi, vehicle and emergency vehicle access and parking infrastructure and service changes.	Satisfactory	The IAP assessment is specific to pedestrian and cycle facilities, which have been addressed.	Not applicable				
(i)	Legislative requirements and applicable guidelines.	Satisfactory	Relevant guidelines (Australian Standards, RMS and Austroads) for pedestrian and bicycle facilities have been considered in the planning / design of alternative bicycle routes and shared paths proposed to mitigate the removal of the Nelson Street bridge.	Not applicable				
(j)	Road safety audits, including but not limited to a review of traffic facility and cycle changes to ensure compliance with Austroads design criteria.	Satisfactory	The IAP has identified a preferred option and as part of an appropriately designed facility and safe outcomes, all road network changes are subject to a road safety audit.	Not applicable				
(k)	Final design, infrastructure, management and service measures and the level of access and service to be achieved for all users.	Satisfactory	The IAP proposes a solution that integrates with potential redevelopment of project-owned sites and Willoughby Council's long- term strategy for pedestrian and bicycle networks.	Not applicable				

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ID	Requirement / Condition	Rating	Reason for Rating	Significance	Response / Comments	Action	Status	Category
(I)	The contents of the Interchange Operations and Maintenance Plan (IOMP) and operational management provisions for future operational requirements, including maintenance, security and management responsibilities.	Satisfactory	Not relevant – Nelson Street bridge replacement does not fall within interchange operations for Metro stations.	Not applicable				
E92	The Interchange Access Plan(s) must be prepared in consultation with the Traffic and Transport Liaison Group (TTLG) and the Design Review Panel and must be supported by traffic and transport analysis. Where necessary, consultation must also be undertaken with major landholders adjoining station precincts. The Plan(s) must detail a delivery and implementation program which must be provided to and agreed by the Secretary before commencement of permanent aboveground facilities at any station site		Compliance with the condition is demonstrated through traffic and transport analysis and previous / ongoing consultation carried out with stakeholders including the TTLG. A delivery and implementation program is provided for various works. It is understood that the shared path proposal along the northern side of Mowbray Road (east of the proposed extension of Frank Channon Walk to create a shared path to the Orchard Road / Elizabeth Street junction) sits outside the scope of the E95 Report and that downstream implementation would be via the Chatswood residual site developer and be subject to assessment having regard to the proposed use of the site once defined. It is further understood that Sydney Metro will consider these proposals and relay Council's comments to the future developer.	Not applicable				

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					For completion by Sydney Metro			
ID	Requirement / Condition	Rating	Reason for Rating	Significance	Response / Comments	Action	Status	Category
E95	The Proponent must in consultation with the TTLG review the need and opportunities for a pedestrian and cycle bridge across the rail corridor to replace the Nelson Street Bridge. The review must be presented in the IAPs and the findings implemented by the Proponent.	Satisfactory	Stand-alone IAP prepared reviewing the need and opportunities for a pedestrian and cycle bridge to replace the Nelson Street bridge.	Not applicable				

ADDITIONAL MISCELLANEOUS REVIEW FINDINGS

It is considered that the Nelson Street Bridge IAP has been prepared to an adequate standard and generally covers the relevant Conditions with respect to traffic and transport access. Notwithstanding, the following issues are noted:

- A combination of Options C and D are recommended, ie. provision of a 3 m shared path along the northern side of Mowbray Road from Pacific Highway to the proposed extension of Frank Channon Walk and the retention of the Mowbray Road / Hampden Road traffic signals. However, it is undesirable for cyclists to transfer on-road across the Mowbray Road rail overpass bridge (towards the Orchard Road / Elizabeth Street junction area), which is a relatively busy route. Consideration needs to be given to bringing forward the continuous shared path proposal along the northern side of Mowbray Road, east of the proposed extension of Frank Channon Walk to create a shared path from Pacific Highway east-west to the Orchard Road / Elizabeth Street junction. It is understood that such a proposal sits outside the scope of the E95 Report and that downstream implementation would be via the Chatswood residual site developer and be subject to assessment having regard to the proposed use of the site once defined.
- It is assumed that the weekday pedestrian and cyclist survey volumes in *Figure 5* of the IAP are over the total 16-hour survey period and not maximum or average hourly volumes. It is noted that there are some inconsistencies between the future year demand estimates in *Figure 9* of the IAP and the future year demand estimates from the *TTLG 12* minutes (*page 8*).

If you have any queries with respect to the above, please do not hesitate to contact the undersigned.

Yours faithfully,

ALAN SAMSA

Fellow, Institute of Engineers Australia (FIEAust) Chartered Professional Engineer (IEAust): NPER (1151361) APEC Engineer – International Professional Engineer (Aust) Fellow, Australian Institute of Traffic Planning & Management (FAITPM) Certified Transport Planner (CTP) – Member Institute of Transportation Engineers (ITE) RMS Accredited Road Safety Auditor: Level 3 Lead Auditor