

29 June 2016

Ms Karen Jones
Department of Planning and Environment
23 – 33 Bridge Street
Sydney
NSW 2000

Dear Ms Jones

**RE: SYDNEY METRO (Chatswood to Sydenham)
Environmental Impact Statement**

Thank you for your invitation for Willoughby City Council to comment on the Sydney Metro (Chatswood to Sydenham) Environmental Impact Statement.

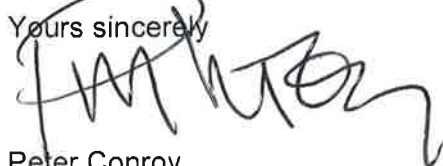
Willoughby Council formally considered this matter its meeting on Monday 27 June 2016. In doing so Council resolved to make the attached submission.

Whilst the submission draws on information prepared by Council staff it also includes feedback provided by representatives of Willoughby's Artarmon Progress Association and West Ward Progress Association.

You will note that a recurring theme throughout the submission is the need to establish and maintain a dialogue with the local community throughout the project. In this regard, Council officers would be pleased to meet with you and discuss this matter in greater detail.

Should you have any further enquiries regarding this matter, please do not hesitate to contact David Sung, Design Services Manager, on 9777 7707 or via email at david.sung@willoughby.nsw.gov.au

Yours sincerely



Peter Conroy
PLANNING & INFRASTRUCTURE DIRECTOR



Submission to The New South Wales Department of Planning & Environment

Sydney Metro EIS (Chatswood to Sydenham)

June 2016

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Preamble

Willoughby City Council (WCC) appreciates the opportunity to comment on the Environmental Impact Statement (EIS) for the proposed Sydney Metro project (Chatswood to Sydenham).

WCC supports the State Government's commitment to building an accessible, high quality public transport system. However, there are aspects of the proposed works that require careful management so that impacts on the Willoughby community are eliminated or at least minimised.

Council's comments on the Sydney Metro – Chatswood to Sydenham project EIS are presented under the headings of *Planning, Environment, Traffic, Works, and Property*. The following key activities related to the proposed construction of the Metro have been identified which include:

- a. Stakeholder Engagement
- b. Adjustment of the T1 North Shore Line between Chatswood Station and Brand Street;
- c. Establishment of the Chatswood Dive site currently used as the Ausgrid depot;
- d. Widening of Pacific Highway at the Mowbray Rd intersection to accommodate 2 right turns (southbound) into Mowbray Rd West (westbound);
- e. Permanent closure of Nelson Street (demolition of bridge);
- f. Adjustment of the Mowbray Rd bridge that includes the strengthening of the western abutment;
- g. Signalising the Hampden Rd/Mowbray Rd intersection;
- h. Raising of the noise walls along the rail corridor;
- i. Construction of the Artarmon substation adjacent to the Gore Hill Freeway;
- j. Rationalising track maintenance access points; and
- k. Weekend closure of Frank Channon Walk.

1 Introduction

The supporting documentation prepared by the NSW Government states that:

Transport for New South Wales's extension of the Sydney Metro Northwest from Chatswood to Sydenham has been declared a critical State significant infrastructure as defined under the Environmental Planning and Assessment Act 1979 (NSW).

When completed in 2024, the Sydney Metro will be a standalone railway system that is 65 km in length, linking 31 metro stations stretching from Sydney's northwestern suburbs to suburbs in Sydney's southwest. This project includes the construction of a new twin tunnel under the Harbour on the western side of the Harbour Bridge.

The fully automated single level trains will operate as a 'turn up and go' system with a service interval of down to 2 minutes during peaks. The service will have an hourly capacity of 40,000 passengers.

When fully operational, the Metro will:

- *Improve public transport network efficiency and passenger experience;*
- *Encourage public transport patronage and mode share;*
- *Stimulate urban development along the rail corridor; and*
- *Cater for the long term growth in commuter needs for Sydney.*

The *Environmental Planning and Assessment Act 1979 (NSW)* (EP&A) requires the project to be assessed before construction can commence. The Environmental Impact Statement (EIS) must identify and assess issues that affects the Community; and develop strategies to avoid, mitigate and/or manage these potential impacts.

2 Willoughby City Council's Response to the EIS

A Working Group consisting of staff from the *Planning, Environment, Property, Traffic and Works Units* was formed to identify issues that would impact on Willoughby's Community in the areas that will affect the Willoughby community.

2.1 Stakeholder Engagement

Public Exhibition of the EIS

The Standard Secretary's Environmental Assessment Requirements (SEARs) for the Sydney Metro - Chatswood to Sydenham identify key issue No. 4 as 'Consultation' and the desired performance outcome as:

"The project is developed with meaningful and effective engagement during project design and delivery."

The stakeholder and community engagement details have not been provided to Willoughby Council. Properties within the Willoughby LGA will be affected by construction activities. These impacts include:-

- Works between Chatswood Station and the Chatswood Dive site, and the Artarmon Substation site;
- Properties above the underground tunnel route may also be affected; and
- Residents living adjacent/above the Metro rail once the project has been completed.

Council would therefore appreciate information on the specific stakeholder and community engagement within, or relevant to, the Willoughby LGA, so that:

- The type and extent of community engagement is public and able to be referred to by Council if questions are asked by interested Willoughby residents and other affected parties; and
- Council may be satisfied that an appropriate level and method of community engagement has occurred, with particular regard to properties directly affected.

The EIS does not indicate if it is intended that letters be sent to surrounding residents within a defined notification area. It is considered that letters to both the current and future owners and occupants of properties impacted and within a reasonable notification area from works associated with this project (noting that all work is proposed to be completed by 2024) should be an essential part of the community engagement process.

Council also requests that a Community Consultative Committee be established for the life of the construction phase to enable substantive community input throughout the project.

Furthermore, meaningful engagement would entail meeting with the significantly impacted residents (e.g Nelson Street residents) one-on-one to explain the process, timelines and

potential impacts and to work with them to finesse mitigation measures proposed and develop a good working relationship to last throughout the construction period.

Notification to residents regarding any modifications to an approval

Council is aware that in a project of this size changes may be required in the future to any approval.

Council would like to be assured that any significant changes to an approval will involve appropriate community engagement, with particular regard to properties directly affected.

Again, it is considered that as a minimum the Community Consultative Committee should be informed, letters to the current and future owners and occupants of properties within a reasonable notification area from works associated be undertaken and one-on-one meetings with significantly impacts residents occur prior to any works being undertaken.

2.2 Adjustment of T1 North Shore Line

In order for the Sydney Metro Chatswood to City to link up with the Sydney Metro Northwest, and ensure that the Metro tracks will fit within the rail corridor, the T1 North Shore Line will have to be re-aligned for approximately 250m south of Chatswood Station. Construction activities associated with this work would generally occupy the rail corridor from Chatswood to Brand Street.

2.2.1 Planning

Visual amenity and Environment

An important part of the visual character of the North Shore involves the natural landscape, and this includes the North Shore railway corridor. Council's comments on this matter are as follows:

- The Sydney Metro C2S EIS Technical Paper 6 Landscape and Visual, Chapter 15, 'Mitigation Measures' are supported;
- It is noted that the 'Mitigation Measures' related to the construction phase are implemented for the length of the construction phase and up until the operational phase begins;
- The erection of noise barriers is generally supported. An acoustic analysis should be carried out and the designs of these barriers involve input from affected residents;
- Clarification is required regarding which barriers are to be retained for the operational phase and into the future as permanent structures;
- With regard to both the railway corridor and the Chatswood Dive Site, appropriate trees (based on species, maturity and location) should be retained where possible; and
- Extensive tree removal on any site is not supported (see section 2.2.2 - Environment comments below).

Noise and Vibration

Where compliance with road traffic noise criteria cannot be achieved, heavy vehicle movement on local roads should be restricted.

The following mitigation measures are considered necessary:

- Demolition and excavation works should be restricted as follows: Monday to Friday 7am – 6pm and Saturday 8am – 1pm;
- Long-term vibration monitoring systems are supported for works within the North Shore Line, Chatswood Dive Site and Artarmon Substation Site to ensure that vibration levels remain within the established limits;
- If compliance with road traffic noise criteria cannot be achieved, night time heavy vehicle movement on local roads should be restricted to ensure compliance; and
- Long-term noise monitoring systems are supported for works within the North Shore Line, Chatswood Dive Site and Artarmon Substation Site to ensure that noise levels remain within the established limits.

2.2.2 Environment

There is little information in the EIS about the amount of vegetation required to be removed along this corridor to allow for the adjustment of the rail lines. A vegetation management plan which details trees and vegetation to be removed along the corridor; and how the spread of weeds will be minimised should be developed by a qualified arborist and submitted to Council for review prior to works commencing. Any tree removed as part of the works is to be replaced with an appropriate tree approved by Council.

Council is also concerned that if clear felling is required this will remove shade and outlook for residents living along the corridor and further add to heat gain and additional noise. Council requires the retention of viable mature native vegetation for the preservation of wildlife movement corridors and to protect the visual amenity of affected residential properties wherever possible.

It is noted that additional noise barriers will be constructed however close consultation with Council and the adjoining residents prior to finalising the detailed design should be undertaken.

2.2.3 Traffic

The adjustment of the T1 North Shore Line tracks from Chatswood Station to the Dive Structure located 200m to 300m south of Chatswood Station would be confined to within the rail corridor. Any increase in construction traffic outside the rail corridor would most likely be associated with project support activities such as construction and delivery vehicles. Streets surrounding the proposed track work that are affected are Orchard Rd, Mowbray Rd and the Pacific Highway. Some support vehicles may also use Hampden Rd although this is not likely to be a popular choice.

Anticipated support vehicle volumes are not expected to be high. However, it would be best if construction traffic associated with the Metro be confined to the period outside of peak traffic flows in the morning and evening.

2.2.4 Works

WCC are concerned about the impact of construction activities on its infrastructure assets. It is vital that all existing infrastructure assets are condition audited prior to the commencement of the Metro project.

It is recommended that the contractors engaged in carrying out construction activities by TfNSW aware of the following Council requirements:

- Any construction, maintenance or restoration works to Council's civil assets, as a result of the project to Council's is to be undertaken to Council's specification and approved by Willoughby Council;
- A full dilapidation report covering all Council's civil assets be carried out prior to the commencement of any works. This report is to include any asset that could be damaged due to construction works or vehicles travelling to and from the site. Following the completion of all railway and associated works any damaged Council assets are to be returned to their original condition;
- Confirm that the construction traffic and loadings can be carried without any damage to the surrounding road pavements. Any damage caused by construction traffic is to be repaired to Council's specification;
- Maintain the operation and functionality of all roads, footpaths and stormwater drainage systems during and after the works;
- Appropriate action to be taken during the construction phase to minimise dust generated by the works and to prevent any silt and sediment from entering any of Council's road or stormwater drainage networks;
- Safe and appropriate pedestrian access to be maintained around the site at all times;
- Provide 24 hour contact details to Council and also have these details clearly provided on site so that any complaints or issues relating to the work can be quickly directed to the appropriate person for action;
- Any damage to the road pavement or potholes created by the works or vehicles accessing or leaving the site is to be made safe and repaired immediately;
- Any street signs or other Council signage damaged during the works or by vehicles entering or leaving the site are to be repaired immediately;
- Any stormwater pit or pit lid damaged during the works or by vehicles entering or leaving the site are to be repaired immediately; and
- Any tree removed as part of the works is to be replaced with an appropriate tree approved by Council.

Note: The above conditions would apply to all aspects of the project that will have an impact on Council's infrastructure assets.

2.3 Chatswood Dive Site

To facilitate the construction of the twin tunnels, which 'crosses under' the northbound T1 North Shore Line as they head towards Crows Nest, a construction site will be established on the existing Ausgrid Depot site. The site with an area of 24,000 sq metres would house the laydown area, spoil handling and storage, equipment storage, water treatment plant, workshop, parking, and site office and staff amenity building.

2.3.1 Planning

Visual Amenity

As previously outlined, Council has concerns about the unnecessary removal of trees, both within the rail corridor and the more highly visible Pacific Highway and Mowbray Road. In particular the street trees in Mowbray Road are mature and positively contribute to the streetscape.

The following issues require further consideration:

- 1) The removal of street trees is not supported unless there is a valid reason, with particular emphasis placed on the Pacific Highway and Mowbray Road; and
- 2) Whole scale tree removal on this site is not supported.

Noise and Vibration

Measures to address adverse impacts on surrounding residential amenity are supported. It is also recommended that an acoustic shed should be constructed over the excavation prior to any excavation works.

The comments and recommendations listed above in Section 2.2.1 - Adjustment of T1 North Shore Line.

Impact on heritage items, conservation areas and archaeological remains

Council seeks to ensure that all heritage items are adequately protected from the impacts of works associated with the Metro, including vibration (which is required under SEARs key issue No. 8 'Noise and Vibration' and No. 9 'Noise and Vibration – Structural'.)

There is specific concern with regard to Mowbray House, which is located on the Chatswood Dive Site, being a major construction site in this project and within close proximity to the proposed tunnel portal and associated tunnelling heading south.

Under Willoughby Local Environmental Plan 2012, the Local Heritage Item is identified as 'Mowbray House and 10m curtilage.' Therefore 10m is to be kept clear on all sides of Mowbray House.

The major ingress / egress point for the site, being from Mowbray Road, is identified as being very close to Mowbray House (with Nelson Street being a local road and ingress only). No clear metre distance is specified, however it would appear to be well within 10 metres. This access point will involve numerous truck movements of varying sizes over the course of the construction period.

It is requested that a minimum 10 metre separation be provided between Mowbray House and the major ingress / egress point for the site. It is considered that the provision of a 10 metres setback, unencumbered by heavy truck movements, would be more in keeping with the 10 metre curtilage required around Mowbray House as specified for this Local Heritage Item under WLEP 2012. As currently proposed, concern also exists that Mowbray House will

be adversely impacted during the construction period, with particular regard to structural integrity.

The following mitigation measures are considered necessary:

- That a 10 metre curtilage be provided around Mowbray House in accordance with the Local heritage Item classification under Willoughby Local Environmental Plan 2012;
- As a result of the 10 metre curtilage required above, the vehicle ingress / egress point for the Chatswood Dive Site is to be re-examined and relocated outside of the 10 metre curtilage. All trees within the curtilage are to be retained;
- All finished works should have adequate regard to and be sympathetic with neighbouring heritage items and surrounding conservation areas;
- Council supports appropriate preservation actions if archaeological remains are discovered;
- A detailed Structural Engineer's report shall be prepared and a copy provided to Council prior to the commencement of any work on the Chatswood dive site qualifying the structural stability of, and the means of supporting the structure during construction;
- A Vibration report is required to specifically consider the impact of construction and operation on each of the heritage items;
- Should any portion of the existing heritage items be damaged, with specific regard to Mowbray House, all the works on-site are to cease and written notification given to Council. No work is to resume until adequate measures are agreed upon in consultation with Council to rectify the damage and ensure further damage does not occur; and
- Preparation of a photographic survey and report of the neighbouring Heritage Items listed below to be presented to Council and all owners of these properties. Such photographic survey and report shall be prepared by a suitably qualified person, detailing the physical condition of these properties, both internal and external including items as walls, ceilings, roof, structural members and other items as necessary.

Heritage items:

- a) Garden of Remembrance
- b) Mowbray House is located on the Chatswood Dive Site
- c) "Chatswood Reservoirs" at 366 Mowbray Road (on the corner with the Pacific Highway)
- d) Chatswood Zone Substation No. 80, located opposite Mowbray House at 348 Mowbray Road,
- e) Great Northern Hotel
- f) Chatswood South Uniting Church and Cemetery – which is located in Lane Cove Council LGA
- g) House at 2 Orchard Road

Any damage occurring as a result of the Metro works is to be rectified at the cost of the TfNSW.

Worker transport to the site

Concern is expressed regarding inadequate parking on-site for workers associated with the project and the impact on surrounding on-street parking. It is requested that other forms of travel to the site, which would result in a reduction in car travel to the site, be explored and introduced.

It is recommended that a shuttle service and / or green travel plan be introduced prior to construction to provide viable non- car travel options to the site for workers.

Post construction Development Plan for the site

Council supports appropriate and satisfactory maintenance of the site between the construction and operation phases of the project. This may be extended to include any future development of the site. Council seeks to be involved at an early stage in the planning for any future development on this site.

Any planning on this site should have regard to the surrounding built environment and character, Council's current local environmental plan and development control plan, as well relevant Council strategic planning documents.

2.3.2 Environment

Biodiversity:

An inspection of a large Sydney Blue Gum that resides on the Mowbray Road boundary near Pacific Highway near the Ausgrid site was conducted by Council's arborist. The following assessment was made:

- The tree has a very healthy canopy that has potential to be highly productive for floral resource for native nectarivorous and granivorous fauna;
- These trees generally provide valuable feeding sites for a wide range of parrots, including rainbow and musk lorikeets, Australian king parrots and crimson rosellas;
- They are a significant food source for other faunas such as Microbats, such as the locally present Threatened Species the Eastern Bentwing bat, which hunt flying insects around large flowering gums at night; and
- Provide safe refuge for roosting birds that move across the urban landscape as these larger remnant trees are particularly important regionally for this reason.

It is therefore required that:

- The subject tree be retained and protected in accordance with AS 4970 – 2009 Protection of trees on development sites, and
- Remediation of surrounding drive and substation sites to include parkland that reinstates local endemic flora species in support of previous mentioned points.

Construction Noise:

Site establishment is likely to take 12 months, with earthworks to take another 12 months. Heavy vehicle traffic and tunnelling noise will have a major effect on those that live close to the work sites.

It is therefore recommended that;

- access to the Nelson street side of the site should be restricted to daytime hours of 7am to 6pm;
- one on one consultation should be conducted with immediate neighbours of the work sites with the option to consider either acoustic insulation (windows etc) of the homes or alternative living arrangements be made available to them for the duration of the works; and
- to protect the community from excessive intrusive noise and preserve amenity, compliance is required in accordance with the EPA Industrial Noise Policy.

Operational Noise:

The significant increase in rail movements in and out of Chatswood station will have an impact on the nearby residents and businesses. The EIS notes that the ingress and egress of trains at Chatswood would require a combination of "high attenuation" track and a small section as "very high attenuation". Given the large amount of residents living above and nearby to the station it would be prudent to have all of this section designated and constructed as "very high attenuation". This will then act as a buffer to increase rail movements over time and ensure minimisation of noise in the longer term.

Air:

Large amounts of dust can be expected to be generated due to excavation and construction activities. These works should be minimised during high winds, which may cause dust to spread beyond the boundaries of the site.

It is recommended that:

- a. Dust screens must be erected around the perimeter of the site and be kept in good repair for the duration of the work;
- b. Water used for dust suppression must not be allowed to enter the street or stormwater system; and
- c. Other mitigation measures regarding air quality that are considered in the document are thought to be appropriate.

Dust Suppression:

- a. Council wishes to emphasize the need to adequately suppress dust resulting from above ground and underground construction activities as silica dust has been linked to the development of silicosis.
- b. The Occupational Health and Safety Act requires employers to take measures in ensuring that workers (and nearby residents) are not exposed to silica dust.

Waste:

The EIS adequately addresses Waste Management, through all stages of the project. It outlines the strategies for dealing with Construction and Demolition Waste, Spoil Management and Operational Waste and complies with all aspects of NSW legislation such as the NSW EPA Waste Avoidance and Resource Recovery Act 2001, NSW Waste Classification Guidelines and the Work Health and Safety Regulation 2011.

The project's targets of 90% of waste to be recycled, and 100% spoil re-use is to be commended. Council would appreciate evidence that this has been achieved during the duration of the project.

The EIS addresses concerns such as handling and disposal of contaminated waste and asbestos waste which is considered acceptable.

Water/soil contamination:

The identification of any contaminants of concern should be examined through detailed site investigations. It is also necessary that:

- Contamination discoveries shall have a remedial action plan prepared in line with EPA 'Contaminated Sites guidelines', SEPP 55, AS4482.1 and AS4482.2 Guide to the investigation sampling of sites with potentially contaminated soils and the Contaminated Land Management Act (1997);
- an unexpected finds protocol to be incorporated into all site redevelopment works; and
- Proper handling of water and soils is required around specific zones of high impact to contain contaminants such as; fuels, oil etc.

Sustainability:

Council is currently negotiating with Transport for NSW on cooperative projects where available spaces for Photovoltaic (PV) and demand sites are a shared asset. It is also noted that the NSW Government Resource Efficiency Policy Section E5: *Identify and Enable Solar Leasing Opportunities* supports the opportunity for this project to include high PV penetration at the new Artarmon substation (this is based on the logic that PV penetration in the existing network has been limited due to aging cables and voltage fluctuations). Council would like to continue to work with TfNSW to identify potential PV projects.

2.3.3 Traffic

With the closure of Nelson St bridge, the proposed access to the site is via its northern frontage in Nelson Street for maintenance vehicles. Entry and exit from the site will also be possible from Mowbray Road on the southern side of the site. No projected traffic volume for Nelson St is given in the EIS but it can be safely assumed that the traffic volume would be low. Traffic using Nelson Street would mainly be confined to local traffic and traffic accessing the Dive site. The latter is expected to be further reduced when the Metro project is completed.

The main access to the Dive Site would be via Mowbray Road at a point directly opposite where Hampden Rd meets Mowbray Rd. The proposed bi-directional driveway at the Hampden Rd/Mowbray Rd intersection is to be signalised to facilitate exit from the site by construction traffic. Any change to the driveway location for the retention and protection of Mowbray House and its curtilage is to occur in consultation with Council and the RMS.

No construction traffic volumes to and from the Dive Site has been provided in the EIS. There is also a lack of information about any construction traffic routes and so a detailed analysis of the impact of construction traffic from the Dive Site on the peripheral streets would be necessary. A traffic management plan should be prepared by TfNSW detailing how construction traffic to and from the site will be managed particularly during peak periods. It should also be noted that all spoil removal trucks are to be parked on-site. TfNSW would be required to provide details of truck routes and route options during peak vs non-peak; and weekday vs weekend routes.

As the installation of the proposed signalised intersection at Hampden Road would be subject to approval by the Roads and Maritime Services, it is assumed that this set of lights would be synchronised with the signals at the Pacific Highway/Mowbray Rd and the Orchard Rd/Elizabeth St/Mowbray Rd intersections. Given the queues along Mowbray Rd during the afternoon peaks, it may be necessary for "Do Not Queue Across Intersection" signs to be installed at the proposed Hampden Rd/Mowbray Rd intersection.

Council would appreciate involvement in any proposed modifications to the traffic signals at the Mowbray Rd/Orchard Rd intersection.

No construction traffic routes have been determined at this stage. Council would require a construction traffic route to be referred to Council for review and agreement prior to the commencement of any work on site so that a pavement condition audit may be carried out; and any damage to the pavement resulting from construction traffic loads must be repaired by TfNSW.

The following are traffic matters that should be considered by the RMS when reviewing the operation of the traffic signals at the Mowbray Rd/Pacific Highway intersection as part of the Metro Project:

- Use the opportunity to improve the pinch point (Pacific Hwy and Mowbray Rd) by improving intersection operation/turn movements and improving intersection safety for all road users including pedestrians and cyclists;
- RMS should also consider providing a right turn movement from Mowbray Rd west (eastbound) into Pacific Hwy (southbound). The provision of this movement will reduce traffic movements turning right at Hampden Rd and then traveling through the Artarmon Village area;
- Use the opportunity to improve pedestrian/cyclists access. The intersection improvement works should consider upgrading pedestrian and bicycle facilities which would promote active transport. Safe access to the shared path (Frank Channon Walk); and completing the link to the Chatswood Interchange should be a priority;
- Council agrees in principle to the Dive Site preliminary construction site plan (access and egress via Nelson St and Mowbray Rd, as illustrated in EIS Figure 7 - 8). However, it would be a requirement that a detailed traffic management and control plan be developed to satisfy traffic and safety standards;
- Without any operation hour details for the Nelson St access, Council will not support 24 hours 7 days truck/construction vehicle access/ movements in Nelson St. Vehicle access hours should comply with Building Code of Australia (BCA). Trucks accessing Nelson St should be restricted during night time and weekends due to the close proximity of local residents. Noise mitigation measures should be implemented to reduce localised noise level; and
- Council would encourage periodic audits of the Construction Traffic Management Plan (CTMP) prior to and during construction works. An independent accredited road safety auditor should be engaged to carry out the audits of the CTMP. Where there are non-compliances identified, the audit procedure should have a mechanism for the issuing of a formal corrective action. Corrective actions should be closed-out and registered in accordance with the Council and RMS's practice. Council staff should be invited as part of the audit team and/or a copy of all audit reports has to be submitted to Council.

2.3.4 Property

Compulsory Land Acquisitions

TfNSW has approached Council in regards to the compulsory acquisition of 2 Council owned parcels of land for the Chatswood Dive Site. These parcels of lands are shown in Appendix 1.

1. Lot 1 in DP 221896 – a narrow strip of land adjacent to the rail corridor and the rear of the Ausgrid depot site. This land has been earmarked for an extension of Frank Channon Walk through to Mowbray Rd. Initial discussions were undertaken whereby upon the redevelopment of 339 Mowbray Rd (Ausgrid Depot, aka 14 Nelson St), Council would receive a portion of the Ausgrid site to allow an adequate width for the extension of the Frank Channon Walk.

Council seeks an undertaking from TfNSW that at the time of the redevelopment of the Chatswood 'dive site' Council receives a dedication of land to allow the extension of the Frank Channon Walk to proceed.

2. Part of Bryson Street – a portion of roadway bounded by the Pacific Hwy, the Ausgrid depot, the Nick Scali retail outlet and the Ausgrid depot staff carpark. This parcel of land has not been earmarked for any special purpose as it served to provide access to the adjacent retail areas.

Council will not be required to arrange the closure of the road, as TfNSW will arrange for a Section 41 'Compulsory acquisition of land that operates as a public road'.

TfNSW is seeking to compensate Council under Section 206 of the Roads Act 1993, whereby Council will be compensated for its costs in constructing the roadway and associated footpath, curb and gutters, drainage etc. Council is seeking fair and just compensation for the costs that it has expended in forming the road and its associated structures.

2.4 Widening of Pacific Highway

Nelson Street will be permanently closed in order that the alignment of the Metro tunnels can cross under the T1 North Shore Line. This involves the raising of the T1 North Shore Line over the Metro Lines as they head south.

With the closure of Nelson Street, the G-turn movement that is currently used by south bound traffic wishing to turn into Mowbray Rd west via Nelson St, would use the proposed double lane right turn in Pacific Highway instead. This would require Pacific Highway to be widened at the Mowbray Rd/Pacific Highway intersection. As a consequent, existing retail and commercial properties on the eastern side of the Pacific Highway on the approach to the intersection will be demolished to facilitate the road widening.

2.4.1 Planning

It is noted that under Willoughby Local Environmental Plan 2012, land on the Chatswood Dive Site, as well as land at the intersection of Mowbray Road and the Pacific Highway is identified on Council's Land Reservation Acquisition Map for the purposes of RMS road widening.

It is requested there be a coordination of the Sydney Metro project with proposed RMS road widening prior to construction as this would assist in the management of changed traffic conditions and impacts associated with a long term project such as this.

If coordination cannot be managed, could an explanation be provided in order to assist Council in answering questions from Willoughby residents and other parties.

2.4.2 Traffic

As mention above, the closure of Nelson St will require the introduction of two right turn lanes (southbound) at the Pacific Hwy/ Mowbray Rd intersection.

In order to enable two additional lanes to be added for southbound traffic at the intersection, commercial and retail businesses on the eastern side of the Pacific Highway at the approach to Mowbray Rd would be demolished so that the road may be widened.

The design of the signalised intersection that will accommodate the two right turn lanes from the Pacific Highway (southbound) into Mowbray Rd (westbound) would be subject to RMS approval. It is imperative that adequate time is given to pedestrians and cyclists crossing Pacific Highway. A grade separated pedestrian crossing may need to be considered to optimise the capacity of the intersection and to cater for future growth.

It should be noted that Mowbray Rd west is one of the proposed key bicycle route being investigated and planned by Lane Cove Council and Willoughby City Council.

With the widening of the Pacific Highway to cater for the two additional southbound lanes, it is likely that the stormwater drainage system in the vicinity of the Mowbray Rd/Pacific Highway intersection would need to be re-designed

In broad terms:

- Council supports the proposal to provide double right turns from the Pacific Hwy (southbound) into Mowbray Rd west (westbound);
- The right turn movements will reduce traffic congestion on local road network (Orchard Rd and Mowbray Rd); potentially improve traffic flow; and reduce travel times for motorists during peak hours;
- RMS needs to include Council in the intersection upgrade design and development process, including pedestrian and cyclists facilities; and
- Council recognises that the Chatswood dive site/traffic management changes will have significant impacts on the local community and through traffic in general. Council is concerned about the impacts the proposed changes will have local residents' access and its local road network during the peak periods during the construction phase of the project.

2.5 Nelson Street Closure

As mentioned above, the permanent closure of Nelson Street to facilitate the raising of the T1 North Shore Line for the Metro tunnel portal would be a key feature of the Metro as it commences its underground journey for 15.5 km. The closure of Nelson Street necessitates the introduction of two right lane turns (southbound) from the Pacific Highway to Mowbray Road west (westbound).

2.5.1 Planning

Concern is raised regarding the demolition of the Nelson Street bridge and the adverse impact on pedestrian and bicycle connectivity in the locality. Both pedestrians and cyclists will lose an existing means of crossing the railway lines, and will now be required to utilise the nearest crossing on Mowbray Road. This new route is difficult for cyclists and is longer for pedestrians. Council is concerned about the reduction in existing connectivity.

It is suggested that a shared pedestrian and cycle bridge be provided at the end of Nelson Street, connecting with the Frank Channon Walk, over the railway corridor prior to the operational phase.

2.5.2 Traffic

In the event that the Nelson Street Bridge is closed, Council acknowledges the suggested traffic changes that have been proposed to off-set the effects of removing Nelson St as part of the traffic network in that precinct.

Council wishes to also express its dissatisfaction that the current connection for pedestrians and cyclists would be lost following the removal of the Nelson Street Bridge. In that regard, Council wishes to suggest that TfNSW considers a grade separated crossing for pedestrians and cyclists so that the current link may be maintained.

To eliminate the concerns raised by the Community, it is suggested that traffic modelling be conducted in the road network linking the Mowbray Rd/Orchard Rd, Mowbray Rd/Hampden Rd, and Pacific Highway/Mowbray Rd (west) intersections.

2.6 Mowbray Rd Bridge Adjustments

The vertical and horizontal re-alignment of the T1 North Shore Line would result in the western abutment of the Mowbray Rd bridge requiring adjustments. This work involves the stabilising of the embankment using soil nails and shotcreting; and the construction of deflection walls to protect the abutment.

2.6.1 Traffic

There is scant information about the traffic management plans during works associated with the Mowbray Rd Bridge adjustments. Council requests that details of any traffic management plan be referred to Council so that the community may be informed of any likely impact they may experience.

2.7 Signalisation of the Hampden Rd/Mowbray Rd Intersection

The main vehicle access to and egress from the Dive Site would be from Mowbray Rd. The access is located directly opposite Hampden Rd. Entry and exit from the site will be controlled by traffic signals at the intersection for construction traffic. Vehicles would also be able to gain access to the site via Nelson St but will only be able to leave the site from the Mowbray Rd frontage.

2.7.1 Planning

Location relative to Mowbray House and curtilage

As raised in Section 4.3.1 'Impacts on Heritage Items' above, it is recommended that the Mowbray Road vehicle access point for the Chatswood Dive Site be located outside the 10 metre curtilage around Mowbray House.

This will have an impact on the signalisation of the Hampden Rd/Mowbray Rd Intersection – as the access would no longer be directly opposite Hampden Road.

It is suggested that the signalisation of Hampden Rd/Mowbray Rd Intersection be adjusted as required by the 10 metre curtilage around Mowbray House.

2.7.2 Traffic

Council welcomes any involvement in the development in the design of the proposed signalisation of the Hampden Rd and Mowbray Rd intersection.

The Artarmon community has raised concerns to Council regarding the impacts of the traffic in Hampden Rd in the short and long terms, as such a traffic study should be undertaken which would indicate the likely impacts on all adjacent local road network.

2.8 Noise Walls

The raising of the T1 North Shore Line at the Nelson Street bridge would require the Noise walls along the rail corridor at that point to be raised in order to reduce the impact of noise on the adjoining properties.

2.8.1 Planning

With regard to noise barriers, the C2S EIS Summary states they will be increased in height to approximately 4 metres between:

- Chapman Avenue and Nelson Street on the eastern side of the rail line.
- The Frank Channon Walk pedestrian underpass and Albert Avenue on the western side the rail line.
- Nelson Street and Gordon Avenue on the western side the rail line.
(P.42)

A two metre high noise barrier will also be built to the south of Mowbray Road on the western side of the rail line.

Further detail is required regarding how long this wall will be and whether they are to be permanent structures.

It is recommended that the erection of noise walls are generally supported based on the recommendations in Section 4.2.1 above. Final design is to occur following consultation with the community.

2.8.2 Environment

All measures conducted to attenuate both works and operation of this project, such as noise walls, need to be independently verified by a certified practicing acoustic consultant.

2.9 Artarmon Substation

A substation is a necessary component of the Sydney Metro as it provides independent electrical power supply to the system. The Artarmon Substation will be located at a site adjacent to the Gore Hill freeway that is accessed from Barton Road, Artarmon. The traction substation building that supplies electricity to the metro system would include a vertical shaft 3 m in diameter that links the substation with the twin tunnel. The substation compound

would also include a water treatment plant, storage, site office and workshop to support the operation of the metro system.

2.9.1 Planning

Council has identified the Artarmon Substation site, being the abovementioned Council land as well as RMS land, under Willoughby Local Environmental 2012 for the purposes of affordable housing.

It is considered that such a site would be preferable within an industrial area having regard to potential visual and noise impacts. An explanation should be provided why this site was chosen rather than an alternative site within the nearby Artarmon Industrial Area.

For the record, Council would appreciate any information pertaining to any alternative sites for the substation.

The site plan shows a number of small structures, including dangerous goods storage, located along the Butchers Lane boundary and no structures located along the boundary with 108 Reserve Road. It would appear that scope exists for the retention of some of the trees located around the boundary, which would assist in the screening of the site from neighbouring residential properties.

It is recommended that tree retention be maximised on this site, with particular regard to species, maturity and location around the site boundary.

Measures to address adverse impacts on surrounding residential amenity, including the erection of a noise barrier or hoarding, are supported.

It is recommended that a noise barrier built around this site. Final design is to occur following consultation with the community.

2.9.2 Environment

There is some confusion as to the actual development required at the Artarmon site.

Page 172 of the EIS states that *"The traction substation and ancillary equipment would be housed in an aboveground building (around five metres above ground level) with a shaft (with a diameter of around three metres) to reticulate cables to the tunnels below."* Whereas other sections of the EIS suggest that there will also be a water treatment plant, dangerous good storage, workshop and site office. The use of this site including layout and design requires further development and a separate submission made to Council.

The site location for the substation and associated equipment and dangerous goods stores as currently indicated in the Executive Summary (pg 51) is very close to residential development. Residents are likely to be concerned about possible Electromagnetic Radiation (EMR) impacts and there is very little detail in the EIS about how this will be mitigated. Council requires more information about the substation, the levels of EMR expected to be emitted, the impacts on the neighbouring residents and how it meets the *Draft Radiation Standard – Exposure Limits for Magnetic Fields* (Draft Radiation Standard) (Australian Radiation Protection and Nuclear Safety Agency, 2006).

Similarly there is no detail about the Dangerous Goods Storage design and potential contents during operation. It is noted that "All hazardous substances that may be required for operation would be stored and managed in accordance with the *Storage and Handling of Dangerous Goods Code of Practice* (WorkCover NSW, 2005) and *Hazardous and Offensive Development Application Guidelines: Applying SEPP 33* (Department of Planning, 2011)." However, further information about what will be stored at this location and how the Code of Practice and SEPP 33 will be met specifically is required by Council due to the close proximity to residents.

It is noted that there is expected to be a water treatment system at the Artarmon site and that there is likely to be a surplus of water. The EIS states that "*It is anticipated that water would be discharged to the local stormwater system or directly to a local surface watercourse; although other options, such as Sydney Water trade waste agreements, would be investigated during detailed design.*" Council would prefer re-use of the treated water rather than discharging to surface water or stormwater. Council could potentially assist in the re-use depending on the quality and quantity of the treated surplus water such as in Council streetsweepers or for irrigation.

2.9.3 Traffic

Council agrees in principle to the Artarmon substation preliminary construction site plan (access and egress via Barton Road, as illustrated in EIS Figure 7 – 9). A proper assessment of its impact on the road network in that precinct can only be made following the development of a detailed traffic management/control plans to Council for final review.

Council further suggests the audits be conducted periodically on the Construction Traffic Management Plan (CTMP) prior to and during construction. An independent accredited road safety auditor should be engaged to carry out the audits. Where there are non-compliances identified, the audit procedure should have a mechanism for the issuing of a formal corrective action. Corrective actions should be in accordance with Council and RMS's practice. Council staff should be invited as part of the audit team and/or a copy of all audits be submitted to Council.

2.9.4 Property

Compulsory Land Acquisitions

TfNSW has approached Council in regards to the compulsory acquisition of a number of Council owned parcels of land that is part of the Barton Road Reserve. These consist of 2 lots and an unmade roadway known as Butchers Lane, Artarmon. The approximately 3,500m² site has been identified as being required to house an electrical substation as part of the Sydney Metro City and Southwest Project.

The land is currently leased to DEC for the relocation of Artarmon Primary School during upgrade works to the school. The lease commenced on the 2 September 2015, with the first term set to expire on 1 September 2018 – the lease does have an option for an additional 2 years should DEC require it.

Council had earmarked this land for the development of affordable housing as part of the Artarmon Property Strategy.

The parcels adjoin a number of residential buildings. Council has concerns that the adjoining residents will be adversely affected by noise, loss of recreational areas and visual amenity, traffic and parking generated by the site etc. Despite numerous requests for further

information in regards to details of the proposed works for the site, Council is yet to receive any details on the matter.

Council is seeking details of the proposal for the Barton Rd sites and seeks assurances that residents will not be adversely affected by the proposed works on the Barton Rd sites, at both the time of construction and into the longer term.

The Barton Rd sites adjoin a residential area. When preparing the valuation for these sites, Council seeks confirmation from TfNSW that Council will be fairly and justly compensated for the compulsorily acquired parcels and that they will be valued as residential land and not open space.

2.10 Track Access

Access points would be required for the maintenance of the metro network and these are located intermittently along the track. Three metro system access points are proposed. There will be an additional access point from Albert Av immediately south of Chatswood Station. New additional access points would be from Brand Street and Drake Street Artarmon. The existing T1 North Shore Line maintenance access point in Hopetoun Av, Chatswood would be decommissioned.

2.10.1 Traffic

As access for track maintenance would be via residential streets, Council wishes to be consulted and invited to comment on any future modifications of Metro/Railway access points. As these track maintenance access points are adjacent local residents, all access schedules (time of day/day of week) and traffic control & management plans be submitted to Council for review and approval.

2.11 Frank Channon Walk – Shared Path

Construction activities south of Chatswood station would necessitate the closure of Frank Channon Walk during the weekend. Pedestrians and cyclists would be required to use either the Pacific Highway or Orchard Rd between Mowbray Rd and Chatswood Station.

2.11.1 Planning

Council supports the proposed Frank Channon Walk extension, connecting from Nelson Street through to Mowbray and any landscaping within. However the width of the extension is not specified in the documentation for either the purpose of a shared path or landscaping. Council seeks to ensure that the extension functions as envisaged by Council as being a shared pedestrian and cycle zone, with potential for a side area for water and air supply as well as a rest area to enable such associated activities as tyre repair / drink stop for bike riders.

Council suggests that this section of the walk be transformed to function as a fully functional and a safe shared pedestrian and cycle path, which will act as a significant entry and exit point to the overall Frank Channon Walk.

Council supports proposed landscaping within the Frank Channon Walk. For the benefit of the community and local transport options, Council requests that the Frank Channon Walk and extension be reopened for use as soon as practically possible.

2.11.2 Traffic

The local community should be notified of the temporary closure and appropriate detour safe routes be provided/communicated to pedestrians and cyclists.

3 Conclusion

WCC supports the State Government's commitment to building an accessible, high quality public transport system.

However, as noted there are many aspects of the proposed works that require appropriate management so that impacts on the Willoughby community are eliminated or at least minimised.

The main areas of concern include construction and operational noise, construction traffic, visual amenity and impacts on heritage items. The construction management plans for each of these areas should be presented to Council and the community so that the detailed mitigation measures can be adequately reviewed and endorsed.

There is also concern about the depth of community consultation and therefore specifically request that a Community Consultative Committee be formed to ensure that locally impacted residents are adequately consulted throughout the project.

Willoughby City Council appreciates the opportunity to comment on the Environmental Impact Statement for the proposed Sydney Metro project.

APPENDIX 1:

Compulsory Land Acquisitions:

1. Parcel of land 1 - Lot 1 in DP 221896
2. Parcel of land 2 - Part of Bryson Street



