

**Sydney Metro Chatswood to Sydenham
Environmental Impact Statement June 2016
Application Number SSI 15_7400**

Attention: Director, Infrastructure Projects

Posted at: http://majorprojects.planning.nsw.gov.au/page/development-categories/transport--communications--energy---water/rail---related-facilities/?action=view_job&job_id=7400

CCs: Gladys Berejiklian MP; Anthony Roberts MP; Andrew Constance, Minister for Transport and Infrastructure; Gail Giles-Gidney, WCC Mayor; Willoughby councillors; Debra Just, WCC general manager; Peter Conroy, WCC director planning and infrastructure; David Sung, WCC design services manager; Rob Coote, Secretary WFPFA,

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27 June 2016

Who we are

The Artarmon Progress Association (APA) was founded in 1906 as a not-for-profit group and our objectives are to promote the welfare, physical and intellectual advancement of the suburb of Artarmon and the City of Willoughby, to protect the interests of the residents, and to encourage a keener spirit of citizenship and mutual help amongst residents.

Our newsletter the Artarmon Gazette, is distributed to over 5,000 homes and businesses in Artarmon.

We regularly communicate with residents and act as a conduit between local residents and elected representatives on matters concerning our local community.

Summary

The Association supports this project which will deliver an accessible, high quality public transport service.

The Association requests a number of conditions of approval to enhance its utility and other conditions of approval to improve its interface with local infrastructure and reduce its environmental and social impact.

The Association supports the measures proposed by Willoughby City Council to ensure the environmental impact of the project is minimised and heritage items are protected.

The APA requests the following conditions of approval. Explanations for the requests are given in the main body of this submission.

1. Enhancing the utility of Sydney Metro by making provision for a station in the Artarmon Industrial Area

The APA requests a condition of approval to require infrastructure to enable a Metro station in the Artarmon Industrial Area, with the station either constructed with the project, or at a later date.

2. Locating the Artarmon substation in an area with compatible land use zoning

The APA requests a condition of approval to require the Artarmon Substation to be built in the industrial area.

3. Protection and enhancement of Mowbray House within the Mowbray Road heritage precinct

The APA requests a condition of approval to require site access and construction activities, as distinct from management activities, not infringe the 10 metre curtilage of Mowbray House to protect it and its palm tree garden from damage.

The APA requests a condition of approval to require an urban design treatment for the precinct in accordance with its heritage.

4. Upgrade of the Pacific Hwy-Mowbray Road intersection

The APA requests a condition of approval to require upgrade of the Pacific Hwy-Mowbray Rd intersection to provide a dedicated right turn lane for eastbound traffic on Mowbray Road West to turn southbound on to the Pacific Highway.

The APA requests a condition of approval to require provision for short- and long-term improved access to Chatswood from the Pacific Hwy via Mowbray Road, and vice versa, due to the loss of access via Nelson St. The opportunity should be taken to make long term real improvements to the traffic flows through the Pacific Hwy-Mowbray Road intersection and Artarmon/Chatswood generally. The changes proposed by Sydney Metro will only make traffic flows through the area worse.

The APA requests a condition of approval to require analysis of the level of service improvement to be obtained at the Pacific Hwy-Mowbray Road intersection with it possessing: two dedicated right turn lanes for Pacific Hwy northbound and southbound; Mowbray Road West with dedicated left and right turn lanes; Mowbray Road East with two dedicated right turn lanes and a dedicated left turn lane; and a 100 metre long right turn bay for Mowbray Road eastbound traffic to turn right into Hampden Road.

The APA requests a condition of approval to require the signalisation of the Nelson St/Pacific Hwy intersection, for the life of the metro project, to enable light and heavy vehicles to access and egress the site via the current Ausgrid site entrance 40 metres east of the Pacific Hwy.

The APA requests a condition of approval to require the 300 car spaces needed for site workers be provided on-site even if it requires a multi-storey parking structure.

The APA requests a condition of approval to require the return to the footpath, on the south-east corner of the Pacific Hwy-Mowbray Road intersection, of the \$5,000 plaque commemorating the heritage of Reservoirs 1 & 2 built in the centennial year of 1888 (the plaque was not replaced following the recent pinch point works).

5. Chatswood site access

The APA requests a condition of approval to require a site access regime as follows:

- left-in/left-out at the western Ausgrid entrance on Mowbray Rd;
- right-in/left out at the western Ausgrid entrance on Nelson St with two-phase traffic lights at Nelson St/Pac Hwy;
- left-in/left-out for light vehicles at Bryson St.

The APA requests a condition of approval to require contractors to encourage workers to access work sites via public transport.

6. Frank Channon Walk extension

The APA requests a condition of approval to require provision for an extension of Frank Channon Walk from Nelson St to Mowbray Road post construction.

7. Height of noise barriers and consultation with neighbours

The APA requests a condition of approval to require Sydney Metro to agree barrier heights and materials with the immediate neighbours who could lose sunlight and views.

8. Brand St site access

The APA requests a condition of approval to require the replacement of the steel bridge with a low-noise (concrete) bridge that spans the full width of Brand St.

The APA requests a condition of approval to require heavy vehicle access to the Brand St rail corridor path via Hampden Road and not via Elizabeth/Brand.

9. Community Consultative Committee

The APA requests a condition of approval require a Community Consultative Committee be formed for the works in the Chatswood-Artarmon area.

Requested conditions of approval

1. Enhancing the utility of Sydney Metro by making provision for a station in the Artarmon Industrial Area

The City of Lower North Shore will shortly be formed with a spine of CBDs – Milson's Point, North Sydney, Crows Nest-St Leonards, Artarmon Industrial Area (AIA) and Chatswood. The AIA is undergoing a change in use. Many low-tech activities are being replaced by high-tech activities such as data centres, a public broadcaster (SBS), media businesses, public and private hospitals and medical research facilities. The AIA is large and capable of also sustaining higher density commercial and residential development. The APA supports rezoning for this purpose.

The AIA is thus well placed to support state and federal innovation agendas. In the future, its size could lead to a workforce on par with any other on the North Shore – but only if a Metro station is built.

Carparking in the AIA is saturated on weekdays and spilling into surrounding residential areas. Thus, a station cannot induce park-and-ride traffic unless parking is specifically provided.

The APA requests a condition of approval to require infrastructure to enable a Metro station in the Artarmon Industrial Area, with the station either constructed with the project, or at a later date.

2. Locating the Artarmon substation in an area with compatible land use zoning

Metro substations have been co-located with Metro stations with the exception of the Artarmon substation. It's placing, at a location zoned R3 residential, appears to have been made on the basis it is controlled by TfNSW.

The site is leased by the Department of Education until 1 September 2018 with an option for an extension to 1 September 2020 should the Department require it.

Use of this site for metro infrastructure has the potential to cause significant disruption to the education of hundreds of students.

The 3,500 m² site is six times the size of that required for similar substations at North Chatswood (~500 m²) and Lindfield (~600 m²) and presently under construction as part of the Metro North West project).

Traction substations produce continual noise and may be accessed at any time of the day or night for urgent maintenance.

The EIS advises the works include a water treatment plant, dangerous goods storage and a workshop. These, also, are not activities compatible with residential zoning.

Landscaping is not an adequate treatment to bed an industrial building, its vehicle parking spaces, and access ways into a residential area.

The substation site has a value of around \$15 million based on its present zoning. Suitable land can be obtained in the industrial area, most of which can be resold post construction for a significant cost saving to government.

The APA requests a condition of approval to require the Artarmon Substation to be built in the industrial area.

3. Protection and enhancement of Mowbray House within the Mowbray Road heritage precinct

The Mowbray Road heritage precinct contains the heritage listed:

- Mowbray House School (local significance) which is directly opposite Ausgrid Chatswood Substation (local);
- The former Chatswood South Uniting Church (state significance) which is directly opposite the Great Northern Hotel (local);
- The council-owned Cemetery formally part of the church grounds (state);
- Chatswood Reservoirs 1 and 2 (state);
- 2 Orchard Road (local).

There are three heritage properties on the north side of Mowbray Road and four on the south in a 430 metre strip between Bowen St and Orchard Rd/Elizabeth St.

Mowbray House sits partially across the Mowbray-Hampden T - junction. Its Palm Tree garden sits within the designated 10 metre curtilage of the heritage declaration and across the rest of the junction.

The EIS advises 520,000 m³ of spoil will be moved off site - about 1.3 million tonnes - about 30,000 'truck-&-dog' loads. Another 20,000 loads are expected to arrive at/depart the site with materials, including thousands of loads of demolition material and tunnel lining elements manufactured at Marrickville dive site – easily 100,000 truck movements over the course of the project. The EIS indicates that these vehicle movements will largely occur with the 10 metres curtilage of Mowbray House in order to access the Mowbray Road-Hampden Rd intersection.

The APA requests a condition of approval to require site access and construction activities, as distinct from management activities, not infringe the 10 metre curtilage of Mowbray House to protect it and its palm tree garden from damage.

The APA requests a condition of approval to require an urban design treatment for the precinct in accordance with its heritage.

4. Upgrade of the Pacific Hwy-Mowbray Road intersection

The EIS advises the Nelson St rail bridge will be demolished (eliminating a 'G' turn) prior to Metro works commencing. The turn will be substituted by an upgrade of the Pacific Hwy-Mowbray Road intersection, including a Pacific Hwy southbound right-turn movement to Mowbray Road West, before the works commence. The APA supports a two-lane right turn movement.

The EIS advises the level of service of the Pacific Hwy-Mowbray Road intersection is rated 'F' - traffic in excess of capacity during morning and afternoon peak hours. The EIS advises it will remain rated 'F' after the addition of the right turn lanes.

The lack of a right turn for eastbound traffic on Mowbray Road West to turn southbound on to the Pacific Highway is forcing traffic to use Hampden Rd to reach St Leonards, North Sydney, the Northern Beaches and the Motorway. Hampden Rd, a district road through Artarmon village, is being treated as extra lanes for the Pacific Hwy. The lack of this right turn accounts for half, or more the southbound traffic on Hampden Rd which, as a result, is subject to peak hour traffic restrictions, loss of parking, and loss of business for the Artarmon shops.

A dedicated right turn lane for eastbound traffic on Mowbray Road West to access the Pacific Hwy southbound is of high importance to Artarmon. Lane Cove Council has been advocating for this right turn for the benefit of its residents. The APA supports RMS taking thin slices of adjacent property, if needed, for an additional lane.

The APA supports a second right turn lane for eastbound traffic on Mowbray Road East to access the Pacific Hwy.

The APA supports retention of the dedicated left-hand turn lanes on Mowbray Road to access the Pacific Hwy – both east- and west-bound.

The APA suggests the present 100 metres long right turn bay for eastbound traffic on Mowbray to access Hampden Road needs to be retained.

In practice, an upgrade to the Pacific Hwy-Mowbray Road intersection may presents as 8 lanes on three approaches and 6 lanes on the fourth (Mowbray Road West).

If the poor level of service at this intersection continues it will add significantly to the costs to the logistics heavy Metro project, the local community, and the wider north shore community more generally.

The EIS advises RMS Pinch Point funds may be available to assist with the intersection upgrade.

Long traffic queues generally develop on Mowbray Road in the afternoons. Locating the prime site exit at the Mowbray Road-Hampden Rd intersection will attempt to pour construction vehicles into traffic that is often not moving. A site exit at this intersection has potential to cause serious disruption to construction and increase project costs.

The eastern end of the dive site is close to residential properties in Nelson St, Mowbray Rd, Orchard Road and Hampden Rd. The western side of the site only has residential neighbours on the far side of the Pacific Hwy arterial road. Exiting the site via Bryson St and Nelson St (west end) has the least impact on residential neighbours.

The EIS advises the main construction site entry will be at the Mowbray Rd-Hampden Rd intersection which would be signalised for the purpose. This proposal heavily conflicts with the need to preserve the locally heritage listed Mowbray House and its 10 metre curtilage.

The EIS suggests signals would improve performance of the Mowbray Rd-Hampden Rd intersection. The intersection can be signalised irrespective of where the site entry is.

The Mowbray Rd-Hampden Rd intersection works have the capacity to radically alter the traffic calming scheme in both east and west Artarmon which is maintained by traffic calming measures, the no-right-turn from Hampden Rd to Mowbray Road and the no-right-turn into Elizabeth Street for traffic going east on Mowbray Road. Traffic must go via Elizabeth St to access Chatswood.

The loss of the left turn from Pacific Highway into Nelson Street and right turn into Orchard Road and then crossing into Elizabeth Street will also have material impact on traffic flows through Artarmon generally.

The EIS advises that the Mowbray Road rail bridge piers will need to be strengthened due to the closeness of the dive structure to the piers - this has implications for future road widening. The loss of the Nelson St rail bridge reduces the number of traffic lanes crossing the North Shore line between Chatswood and the orbital motorway from 12 to 10. The loss places greater pressure on access to Chatswood via the Mowbray Road rail bridge and Orchard Road.

The loss of the Nelson St rail bridge will force traffic bound for Elizabeth St Artarmon, south Chatswood, Willoughby and suburbs further east to use the Pacific Hwy intersection.

A significant portion of traffic eastbound on Mowbray Road is seeking to access Chatswood via Orchard Road.

The water valve and electrical chambers outside the heritage listed reservoir and substation properties of Mowbray Rd make it difficult to widen on the south side between Hampden and Pacific Hwy.

Future development of the site will likely be considered during the course of the project. Development will make it difficult to improve intersection capacity for Mowbray Road traffic if provision for lane-widening on the north side of Mowbray Road is not made part of this intersection upgrade.

Future lane widening should add an extra lane on both the north and south sides of Mowbray Road rail bridge to minimise the land required from the heritage property 2 Orchard Road.

The Pacific Hwy south of Mowbray Road was recently upgraded. The new works will however, take a thin slice of land from the Reservoir site, on its Pac Hwy frontage, well away from the reservoirs.

The APA notes the RMS has yet to return the \$5,000 footpath plaque commemorating the heritage of Reservoirs 1 & 2 built in the centennial year of 1888. The plaque was removed from the footpath of the south-east corner of the Pacific Hwy-Mowbray Road intersection, during the pinch point works and not reinstated.

The APA requests a condition of approval to require upgrade of the Pacific Hwy-Mowbray Rd intersection to provide a dedicated right turn lane for eastbound traffic on Mowbray Road West to turn southbound on to the Pacific Highway.

The APA requests a condition of approval to require provision for short- and long-term improved access to Chatswood from the Pacific Hwy via Mowbray Road, and vice versa, due to the loss of access via Nelson St. The opportunity should be taken to make long term real improvements to the traffic flows through the Pacific Hwy-Mowbray Road intersection and Artarmon/Chatswood generally. The changes proposed by Sydney Metro will only make traffic flows through the area worse.

The APA requests a condition of approval to require analysis of the level of service improvement to be obtained at the Pacific Hwy-Mowbray Road intersection with it possessing: two dedicated right turn lanes for Pacific Hwy northbound and southbound; Mowbray Road West with dedicated left and right turn lanes; Mowbray Road East with two dedicated right turn lanes and a dedicated left turn lane; and a 100 metre long right turn bay for Mowbray Road eastbound traffic to turn right into Hampden Road.

The APA requests a condition of approval to require the signalisation of the Nelson St/Pacific Hwy intersection, for the life of the Metro project, to enable light and heavy vehicles to access and egress the site via the current Ausgrid site entrance 40 metres east of the Pacific Hwy.

The APA requests a condition of approval to require the 300 car spaces needed for site workers be provided on-site even if it requires a multi-storey parking structure.

The APA requests a condition of approval to require the return to the footpath, on the south-east corner of the Pacific Hwy-Mowbray Road intersection, of the \$5,000 plaque commemorating the heritage of Reservoirs 1 & 2 built in the centennial year of 1888 (the plaque was not replaced following the recent pinch point works).

5. Chatswood site access

520,000 m³ of spoil will be moved off site - about 1.3 million tonnes - about 30,000 'truck-&-dog' loads. Another 20,000 loads will arrive at/depart the site with materials, including thousands of loads of demolition material, tunnel lining elements manufactured at Marrickville dive site, concrete and rail systems – easily 100,000 truck movements over the course of the project.

Construction vehicle movements on the Pacific Hwy are equally likely in both directions.

It's not conceivable that a construction contractor would readily hinder their works by having the 100,000 heavy vehicle movements and 1,000,000 light vehicle movements access/egress the site right beside the main work face. ((The Marrickville dive site has two access points well away from the workplace.))

The Ausgrid site presently has 5 active entrances - 2 in Nelson St, 2 in Mowbray Rd and 1 in Bryson St. The 2 eastern entrances will be obliterated by the dive structure.

Of the three remaining entrances, the Mowbray Rd entrance is about 60 metres from Pacific Hwy. The Nelson St entrance is 40 metres from the Pac Hwy. Bryson St, used as an access way, opens directly onto the Pacific Hwy. These are acceptable distances from the arterial road for construction vehicle queueing. Site access at these locations should be allowed to continue on the basis of their minimal traffic and environmental impact.

Traffic lights at the Nelson St-Pacific Hwy intersection, an intersection bounded by commercial properties, for the life of the project will permit good site access/departure with minimal traffic, social and environmental impact.

The most benign construction access regime for the site is:

- left-in/left-out at the western Ausgrid entrance on Mowbray Rd,
- right-in/left out at the western Ausgrid entrance on Nelson St with two-phase traffic lights at Nelson St/Pac Hwy.
- left-in/left-out for light vehicles at Bryson St.

The EIS advises 300 car spaces are needed for site workers. The APA prefers these be provided on-site to reduce the instance of workers parking in surrounding residential streets. Workers cannot be forced to use a remote parking facility.

The 300 onsite parking places require about 6,600 square metres – equivalent to the Pacific Hwy frontage to a width of 50 metres deep. The sensible approach is a 2- or 3-storey parking structure to reduce the area required. Access via a park-and-ride facility elsewhere would just encourage workers to park in residential streets and walk to the site.

The site is within 600 metres of both Chatswood and Artarmon stations and the Chatswood bus interchange.

The APA requests a condition of approval to require a site access regime as follows:

--- left-in/left-out at the western Ausgrid entrance on Mowbray Rd;

--- right-in/left out at the western Ausgrid entrance on Nelson St with two-phase traffic lights at Nelson St/Pac Hwy;

--- left-in/left-out for light vehicles at Bryson St.

The APA requests a condition of approval to require contractors to encourage workers to access work sites via public transport.

6. Frank Channon Walk extension

The extension of the Walk to Mowbray Road is the last essential work towards significantly improved pedestrian and cycle links between Chatswood, Artarmon and St Leonards. For this purpose, Council obtained a strip of land alongside the North Shore rail corridor. This land will be resumed for the Metro dive structure.

Post construction, the Walk can be extended south to Mowbray Rd alongside the tunnel dive. It should not be necessary to remove the palm tree garden of Mowbray House for this purpose.

The APA requests a condition of approval to require provision for an extension of Frank Channon Walk from Nelson St to Mowbray Road post construction.

7. Height of noise barriers and consultation with neighbours

North Shore line noise barriers will be raised and new barriers added.

The APA requests a condition of approval to require Sydney Metro to agree barrier heights and materials with the immediate neighbours who could lose sunlight and views.

8. Brand St site access

The EIS advises a Brand St rail corridor entry is required for the preliminary works to the North Shore line and future North Shore line maintenance.

The Brand St access point is between the Brand St roundabout and the abutment of the rail bridge. Site access is normally left-in/left in this circumstance. Redundant bridge abutments obscure vision and narrow the road. The road, at the rail bridge, needs to be the full street width (likely 20.1 metres) of Brand St to improve vision for traffic.

Local residents have long requested that the current steel rail bridge be replaced by a structure that generates less noise. Replacing the rail bridge will also allow grade improvements to the relocated North Shore line.

The APA requests a condition of approval to require heavy vehicle access to the Brand St rail corridor path via Hampden Road and not via Elizabeth/Brand.

The APA requests a condition of approval to require the replacement of the steel bridge with a low-noise (concrete) bridge that spans the full width of Brand St.

9. Community Consultative Committee

As plans for the works in the North Shore line corridor are, at best, only at the preliminary stage, the APA requests a condition of approval require a Community Consultative Committee be formed for the works in the Chatswood-Artarmon area.

As evidence for the need for the committee and issues it would address we present the concerns of long term Raleigh St Artarmon resident:

Noise mitigation and consultation with T1 alignment neighbours

While I have various concerns about the project, by far my major concern is noise.

As my Raleigh St home is adjacent to the North Shore line, which is to be re-aligned to accommodate the Metro dive, and only one block from the dive site, I am concerned as to the effects on both my property and my health, and that of my neighbours, of noise, dust and long-term vibration from demolition, excavation, tunnelling and vehicle movements to and from the dive site.

Additionally, I am concerned about the more immediate impact, on myself and neighbours in Drake, Hawkins and Brand Sts and Hampden Rd of noise, dust and vibration from track re-alignment works between Brand Street and Mowbray Rd.

After living in close proximity to the railway line for over 30 years, I am well aware of the disruption and sleep deprivation that can occur with extended works on the line and hope my observations below may be able to inform your work practices design.

Noise can be virtually non-stop, day and night, with work hours and practices not conducive to allowing sleep, either during the night or day, due to such activities as:

Day time noise – between ~6am and 4pm:

--- Construction of local depot facilities at Drake St; delivery and unloading of plant, equipment and materials by trucks to the trackside depot at Drake St.

--- Distribution of plant, equipment and materials to track location by driving in one direction then, rather than turning around and driving back, reversing back to the depot (often up to half a kilometre), with reversing beepers blaring - sufficiently piercing to be heard by workmen in acoustic headphones.

--- Periodic explosions of detonators along the line to warn workmen of approaching trains, plus approaching trains sounding horns.

Night time noise – between ~7pm and 4am:

--- During night time rail shut down: movement of truck and plant along track, reversing beepers, engine noise, jack-hammering, excavation, grinding and cutting metal, heavy plant dumping blue metal, installing sleepers and tracks, and lifting, levelling and re-driving pins into rail tracks.

--- Generators on the track outside my house, running all night. Most frustratingly, often left idling all night even though not actually in use.

My experience has been that there is nowhere in my home that I can escape the noise. If I have been kept awake most or all of the night, I am not even able to make up sleep during the day, because of day-shift activities and loud noise. Continuous work over several days becomes intolerable due to lack of sleep and the stress of unremitting noise.

Is it possible to employ some kind of visual warning system of approaching trains, rather than detonators and horns? Can night work, if necessary, be scheduled to NOT mean practically continuous 24/7 noise and activity inflicted on neighbours?

I request that noise mitigation measures and work practices be utilised to prevent long-term exposure of residents to prolonged and stressful levels of noise.

I also request that Sydney Metro consult with affected residents, both adjacent to and within close proximity to (say, up to one block away from) the dive site and rail corridor regarding double glazing, barrier heights and materials and involve residents in a community consultative committee for the duration of the works and the beginning of the operational period.