INNER WEST BUSWAY ALONG VICTORIA ROAD

(formerly known as Victoria Road Upgrade project)

Modification Report

White Bay Shared Path

July 2010

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1 Introduction

1.1 Background and purpose

The Inner West Busway along Victoria Road (formerly known as Victoria Road upgrade) project is currently under construction having been approved by the Minister for Planning on 9 April 2009. During consultation for this project, improvements to cyclist and pedestrian facilities in Drummoyne and Rozelle were identified as important issues. Following consultation with key stakeholders, the RTA developed a proposal (documented within the Inner West Busway along Victoria Road Cyclist and Pedestrian Improvements Review of Environmental Factors) to improve cyclist and pedestrian facilities within Drummoyne, Rozelle and a small section of Balmain. The proposal would involve a number of activities to reduce clutter along shared-use paths, convert existing footpaths to shared-use paths, provide designated bicycle shoulder lanes and cycle routes along local streets and provide connections to existing cycle routes. The proposal is documented within the Inner West Busway along Victoria Road Cyclist and Pedestrian Improvements REF which was determined on 5 July 2010 by the RTA under Part 5 of the Environmental Planning and Assessment Act, 1979 (EP&A Act).

In addition to the rationalisation of bus stops described in the Inner West Busway along Victoria Road Cyclist and Pedestrian Improvements REF (November, 2009), the RTA proposes to improve safety for cyclists and pedestrians around the White Bay bus stop. The proposal for White Bay bus stop safety improvement works is assessed in this modification report to the Inner West Busway project.

For the purposes of this report the study area is defined as Victoria Road and other local roads between Cambridge Road, Drummoyne and Lilyfield Road, Rozelle (refer to Figure 1-1), within the local government areas of Canada Bay and Leichhardt.

Figure 1-1 Study area of the cycleway proposal

The purpose of this report is to assess the potential environmental impacts to White Bay Power Station site (the proposed modification) in which the proposed White Bay bus stop safety improvement works would occur.

Section 75W of the EP&A Act regulates the modification of a Part 3A approval. It states that the proponent may request that the Minister for Planning modify a project approval, where the proponent wishes to make alterations to the approved works for the project, which would be inconsistent with the approval. This report has been prepared to support the request to modify a major project (Inner West Busway along Victoria Road). Section 75W of the EP&A Act states that this modification of a Part 3A approval may or may not be approved by the Minister for Planning.

1.2 Modification process

1.2.1 Modifying a Part 3A project

Section 75W of the EP&A Act governs the modification of Part 3A projects. A modification is formally defined as changing the terms of the Minister's approval. This includes changing the project or the subject of the approval, and involves revoking or varying conditions of the approval or imposing additional conditions of approval.

As per section 75W clause (2) of the EP&A Act, the proponent may request the Minister to modify the Minister's approval for a project. The Minister's approval for a modification is not required if the project as modified will be consistent with the existing approval under this Part.

Where a modification request is made, the Minister for Planning may modify the approval (with or without conditions) or not approve the modification.

1.2.2 Consistency with the approval

The RTA has assessed the consistency of the proposed bus stop safety improvement works at White Bay with the original approval.

It was concluded that within the curtilage of the White Bay Power Station direct impacts were not contemplated in the Victoria Road Upgrade (Inner West Busway along Victoria Road) Environmental Assessment (October 2008) or the subsequent Part 3A approval. On this basis the RTA has decided that the proposal is not consistent with original approval and that a modification of the Minister's approval is required pursuant to section 75W of the EP&A Act.

1.2.3 Modification Report

The Modification Report:

- Describes the approved project at the White Bay bus stop,
- Describes the proposed changes to the approved project and why they are needed;
- Assesses the environmental impact of the proposed changes; and
- Identifies environmental safeguards to reduce or avoid impacts arising from the proposed changes.

2 Description and need of the proposed modification

2.1 Approved project

Section 3 of the Inner West Busway along Victoria Road Cyclist and Pedestrian Improvements REF (November, 2009) refers to the description of the project as determined in the RTA Decision Report that was approved on the 15th March, 2010.

2.2 Description of the proposed changes to modified activity

The proposed modification to the approved activity would consist of cyclist and pedestrian safety improvements around the bus stop near the boundary of the White Bay Power Station site, Rozelle. The modification would also benefit the cyclist and pedestrian improvements proposal which would be undertaken within the suburbs of Rozelle, Drummoyne and a small section of Balmain.

The components of the proposed modification would include:

- Installation of fencing, signage and bollards.
- Painting of bicycle lane and path components
- Widening of the shared-use path at the citybound side on Victoria Road, near the intersection with Robert Street
- Adjusting the kerbline
- Bus shelter adjustments at White Bay.

Figure 2-1 White Bay bus stop

Bus shelter adjustment at White Bay

It is proposed to reposition the existing bus shelter at White Bay closer to the kerb and to install fencing behind the bus shelter to separate waiting bus passengers from cyclists and pedestrians using the shared-use path. The kerb will also be slightly adjusted. The shared-use path is to be constructed behind and around the two White Bay bus shelters and the existing footpath. Where possible, nearby street furniture such as bins and signs, would be relocated to reduce obstacles within the shared-use

path. Footpath treatment and line marking would also be used to visually separate the bus passenger zone from the through zone. The widening would require property acquisition from the Sydney Harbour Foreshore Authority (SHFA) to accommodate a structure which would be built on the crest of a steep embankment to support the footpath widening.

The detailed design for the bus shelter adjustment at White Bay will be determined through ongoing consultation with Leichhardt Municipal Council, Sydney Harbour Foreshore Authority (SHFA), State Transit Authority (STA), Leichhardt Bicycle Advisory Council (LBAC) and Leichhardt Bicycle User Groups (LBUG). Please refer to Appendix A for a draft design the White Bay bus stop.

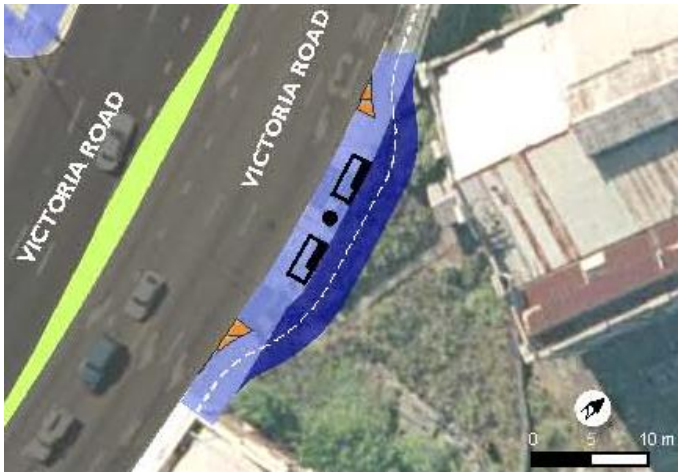

Figure 2-2 The proposed modification to the Inner West Busway at White Bay bus stop. Dark blue colours indicate the area where the shared path is to be built out, colour treated, and signs marked on pavement; pale blue colours indicate where the existing footpath will be resurfaced, and signs marked on pavement.

Figure 2-3 Location of the proposed widened share path in the White Bay Power Station. This area is the embankment immediately behind the existing bus stop. The construction of a retaining wall is not required.

2.3 Need for the proposed modification

At present cyclists using the shared-use path along Victoria Road encounter obstacles such as crowds around bus shelters, and street furniture such as bins and signs at the bus shelter. Similarly, pedestrians and waiting bus passengers are at risk of collisions with passing cyclists.

The proposed modification forms a component of the various cyclist and pedestrian improvements that are considered necessary to provide safer and more continuous routes for cyclists and pedestrians and to facilitate further growth in these transport modes. Details for the requirement of each component are provided below.

Installation of fencing and signage

The installation of these features would assist in controlling the movement of cyclists and pedestrians as well as improving access and safety for users. Signs would be erected to notify drivers, cyclists and pedestrians of shared path use and fencing would separate shared path users from waiting bus passengers in the aim to prevent collisions near bus shelters.

Painting of bicycle lane and path components

Coloured treatment of the bicycle lane would delineate between the bus waiting area and the shared path area. Painted symbols on the pavement would also notify pedestrians and cyclist of shared path use behind the bus stop area, these features would also assist in controlling movement of cyclists and pedestrians and improve access and safety for users.

Widening of the shared-use path

The existing bus stop located on the citybound shared-use path on Victoria Road, near the intersection at Robert Street, is a recognised conflict point for cyclists and pedestrians (refer to Figure 2-1) due to its narrow width. Widening of the shared-use path and adjustment of the kerb line would allow greater distance for cyclist and pedestrian use, thus minimising the risk of collisions.

2.4 Construction activities

2.4.1 Work methodology

The proposed modification would involve similar work methods to that described in the Victoria Road Upgrade (Inner West Busway along Victoria Road) Environmental Assessment (October, 2008).

2.4.2 Earthworks, stockpiles and compound sites

For the majority of the works, only small amounts of spoil would be generated from the construction activities such as potholing and excavations for footings. All excavated material would be collected in vacuum trucks and would be disposed of at a licensed facility.

The material excavated from the White Bay site during night-time operations would be stockpiled at a temporary storage facility on site or at the Glebe Island compound site that is currently used as part of the Inner West Busway along Victoria Road project. This would minimise some cumulative impacts from the proposal by taking advantage of established sites and facilities. The spoil would be classified then re-used or disposed at an approved facility during the daytime.

Any other rubbish generated from these works would be disposed of in appropriate bins.

2.4.3 Source of materials

As detailed in the Victoria Road Upgrade (Inner West Busway along Victoria Road) Environmental Assessment, road base, pavement materials and concrete would be sourced locally wherever possible. Where possible, procurement of materials with recycled content would be investigated where equivalent quality would be achieved.

2.4.4 Plant and equipment

Typical plant and equipment are required for the proposal would include:

- Traffic control vehicles
- Various cranes and hiab trucks

- Lighting tower
- Pedestrian and traffic barriers
- Quickcut saw
- Roadsaw
- Various excavators
- Concrete drill
- Tipper trucks (2 tonne)
- Generators
- Range of hand tools
- Profiling machine
- Bogies
- Hand tools
- Angle grinder

2.4.5 Traffic management and access

The works would require traffic management measures to be put into place to provide safety for road users, cyclists and pedestrians, bus users, and to manage access. Details of traffic management are provided in the Victoria Road Upgrade (Inner West Busway along Victoria Road) Environmental Assessment (October, 2008). During works the bus stops would be temporarily relocated in consultation with the State Transit Authority (STA).

Leichhardt Municipal Council would be notified of any changes to traffic arrangements on local roads, prior to commencing works.

2.4.6 Workforce and working hours

The number of personnel required for the proposed works would vary depending on the activity. Generally, between ten and fifteen personnel would be required, including traffic controllers.

Restrictions on accessing the road corridor to carry out some activities related to the proposal would require these works to occur outside the standard working hours (i.e. standard working hours are referred to as Monday to Friday between 7am and 6pm; Saturdays between 8am and 1pm; and no work on Sundays) These restrictions would include having to maintain the operational integrity of Victoria Road and minimising impacts on traffic flow, allowing adequate and safe construction sites and considering impacts on bus services. The DECCW Interim Construction Noise Guidelines (July, 2009) allow for works undertaken by a public authority to occur outside recommended standard hours in certain situations if justified. The Minister's conditional Approval of the Inner West Busway along Victoria Road Construction Noise and Vibration Management Plan (CNVMP) requires the preferential scheduling of noise-intensive works in the following order, where practicable:

- Daytime (7am to 6pm).
- Evening (6pm to 10pm).
- Category 1 night-time work period (10pm to midnight).
- Category 2 night-time work period (midnight to 7am).
- No work on Public Holidays

Where it is deemed necessary to carry out works during evening or night time periods, additional feasible and reasonable mitigation measures such as those described in the CNVMP for the Inner West Busway along Victoria Road project would be implemented.

2.5 Public utility adjustment

Utility investigations associated with the relocation of bus shelter and the installation of fencing and signage would be undertaken as necessary prior to construction. Minor adjustments to the locations of the footings, or adjustments to the construction methodology would be undertaken in preference to relocating utilities.

2.6 Property acquisition

A small section of land within the White Bay Power Station site would be required for the widening of the shared-use path (about 150 square metres during construction and about 40 square metres once the works are completed). If approved and the project proceeds, the RTA proposes to acquire this land from SHFA.

3 Environmental assessment

Key issues

3.1 Transport

3.1.1 Existing environment

Victoria Road is a major route between Parramatta and the City of Sydney. The section of Victoria Road affected by the proposal is a section of road travelling north-west/south-east for about three kilometres through the suburbs of Drummoyne and Rozelle. Victoria Road is generally a straight, six lane divided carriageway with dedicated turning lanes at several intersections. The pavement, median and road widths vary within the study area. The road is generally 18.1 metres wide with a narrow median. The proposed works would also be undertaken along a number of local streets either side of this section of Victoria Road.

Victoria Road is one of Sydney's busiest road transport corridors. Used by up to 200,000 bus passengers each week, it also accommodates over 75,000 vehicles per day and is heavily congested, particularly in Drummoyne and Rozelle in the morning peak. During a typical weekday morning peak, up to 170 buses with more than 8,000 passengers travel between Gladesville Bridge, Drummoyne, and The Crescent at Rozelle.

The existing Parramatta Valley cycleway runs from Gladesville Bridge through local streets in Drummoyne, joining Victoria Road at Day Street. From there it connects to the 1.8 metre shared-use path on the eastern side of the Iron Cove Bridge. On a typical Sunday, this shared-use path is used by more than 4,000 cyclists and pedestrians. In Rozelle, the cycleway travels from the bridge along a shared-use path on the eastern side of Victoria Road. Cyclists either use the shared-use path, Victoria Road or local roads.

3.1.2 Potential impacts of the modified project

The kerb realignment associated with the proposal at White Bay would result in a narrowing of the bus lane adjacent to the bus stop. This would reduce the space available for cyclists travelling citybound in the bus lane to pass a bus standing at the bus stop. However those that ride in the bus lane rejoin the shared-use path before turning left into The Crescent. This means that they can cross Anzac Bridge using an off road facility thereby avoiding the traffic merge between The Crescent and City West Link.

The improvement to the shared-use path at the bus stop at White Bay may encourage those cyclists currently riding on the road at this location to use the shared-use path. It is considered that provision of the improvement at White Bay is the better option for safety improvements for cyclists and pedestrians, despite the need to realign the kerb.

The widening of the shared-use path at White Bay would require the temporary relocation of the existing bus stop during construction. This would minimise disruptions to the existing bus service and minimise risks to pedestrian and bus user safety during construction. Construction activities would require the implementation of traffic control to ensure the safe movement of both vehicular, pedestrian and cyclist traffic around the work sites. Traffic control would be implemented in accordance with approved traffic control plans and would include appropriate signage to communicate changes to users.

The impact to traffic is likely to be relatively minor, given that the majority of the works would be undertaken at night when traffic volumes are low. During night-time works up to two kerbside lanes and the shared-use path would be closed. During the daytime, excavations would have a barrier around them and the shared-use path would be open to cyclists and pedestrians (although with a reduced width). The works are unlikely to affect parking at residences. The bus shelter adjustment area would be made safe at the end of each night to allow cyclist and pedestrian traffic to pass during the day.

Due to the temporary nature of the works and minimal impact on parking, the impact to commercial operations is considered minor.

3.1.3 Mitigation and management measures

- The White Bay bus stop would be temporarily relocated to a location determined in consultation with STA.
- All relevant mitigation and management measures for the Inner West Busway along Victoria Road project (included in Appendix B of this report).

3.2 Contamination

3.2.1 Existing environment

Generally, the soils in the study area have been heavily modified by a long history of extensive industrial, commercial and residential development.

A search of the NSW DECCW contaminated sites register, conducted on 18 January 2010, indicated 25 contaminated sites in the Leichhardt and Canada Bay LGAs. A remediation order for White Bay Power Station was issued in 1991 for the removal of asbestos, the removal of drums and vessels which contained various chemicals and chemical wastes, and the decontamination of soil contaminated with chemical wastes such as hydrocarbons. This order was revoked in 1998, indicating that the remediation order had been completed.

3.2.2 Potential impacts of the modified project

The widening of the shared-use path at White Bay would involve an excavation into the rock beneath the existing path, and there is the potential to cause instability in the rock/fill embankment. None of the works would be undertaken within areas containing or likely to contain acid sulfate soils. It is not anticipated that the other components of the proposed modification would result in adverse impacts to the geology or topography of the study area.

The pavement and any grassed areas would be restored upon completion of the works. The potential for erosion and sedimentation at these sites is considered to be low.

Contaminants have been identified at the White Bay Power Station site, however as the excavations would largely be undertaken in rock, it is considered unlikely that contaminated material would be uncovered and need specific stockpiling or transportation methods. However, as there is potential to encounter contaminated soil during the construction of a minor compound area and during subsurface works, preliminary site investigations would include sampling in the area to determine the extent of any potential contamination.

During construction, if suspected contaminated soils are encountered, samples would be sent to the laboratory for analysis to confirm the nature of the material and the material stockpiled and contained to prevent mobilisation of contaminants offsite. Once disturbed, there is also the potential for contaminants to enter the waterway as runoff into the stormwater system in the absence of

appropriate management measures. While there is the potential for these impacts to occur, with the implementation of standard management measures, the risk of these impacts occurring is considered minimal.

3.2.3 Mitigation and management measures

- Surface soil samples would be taken and analysed to determine the nature of any fill material prior to disposal offsite.
- Should the area for the compound area be found to be contaminated, appropriate management strategies would be discussed with the SHFA.
- If required, a contaminated site management plan would be prepared as an addendum of the Construction Environmental Management Plan (CEMP) for the Inner West Busway along Victoria Road.
- All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road project. (included in Appendix B of this report).

3.3 Noise and vibration

3.3.1 Existing environment

Sources of noise in the vicinity of the study area are typical of the metropolitan environment and include road, domestic, industrial, recreational and aircraft noise. Victoria Road is a major route between Parramatta and the City of Sydney and is the dominant source of noise in the study area. Noise receivers near the site of the White Bay modification include residents along Quirk and Hornsey Streets, Rozelle.

3.3.2 Potential impacts of the approved project

A number of locations would be affected by noise and vibration during the construction. These would include residences near the bridge works, schools, recreation areas and places of worship.

3.3.3 Potential impacts of the modified project

Noise and vibration issues would be likely from the construction of the widening of the shared-use path and bus shelter adjustments at White Bay. Works relating to adjustments to the bus shelter would be carried out at night. These works would involve some noisy activities with the potential to impact residential receivers. Given that the works would be undertaken at night, commercial properties are unlikely to be impacted. The RTA would implement feasible and reasonable best practice and management measures to minimise impacts at all locations.

The widening of the shared-use path at White Bay would take less than three months to complete. Construction activities would include rock breaking, which would be audible from nearby residential receivers along Quirk Street, Hornsey Street and Lilyfield Road. There is one commercial premise in the vicinity of the works located on Victoria Road between Hornsey Street and Lilyfield Road. Given the nature of the business, potential noise impacts during daytime activities are unlikely to affect trade. Where it is not possible to undertake the activities during the day due to restrictions in accessing the road corridor, work would be undertaken during evening or night-time working hours. Noisier activities would be scheduled to be undertaken before midnight where practicable

3.3.4 Mitigation and management measures

- The noise and vibration impacts for the proposal would be managed in accordance with the approach described in the CNVMP prepared for the Inner West Busway along Victoria Road project.
- All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road project. (included in Appendix B of this report).

3.4 Visual amenity and urban design

3.4.1 Existing environment

The study area is in a locality that contains moderate to high visual amenity. The dominant elements that contribute to the visual amenity of the area include suburban residential streets and the Victoria Road streetscape, which consists of a diverse mix of strip retail, sales and display showrooms, hotels, vacant lots, existing and former industrial properties, residential frontages, service stations and local parks.

The implementation of the desired future character for the corridor (detailed in the Victoria Road Upgrade (Inner West Busway along Victoria Road Environmental Assessment) would be achieved through a range of public sector projects, private sector renewal, and strategic public domain improvements. The Inner West Busway along Victoria Road project represents one step in this process.

3.4.2 Potential impacts of the modified project

Once completed the widened shared-use path at White Bay would match the existing visual environment. Fencing along the eastern edge of the widened share path would not reduce visibility and sight lines to, from and past the White Bay Power Station below its current level. Therefore it is considered that the visual impact would be minor. No new vertical elements would be introduced into the landscape.

The visual impacts associated with modifying a bus shelter, painting lanes and symbols on the shared use path and on the resurfacing pavements, erecting signage, and modifying the kerb are considered minimal. There would be no change to the appearance of the bus shelter. While the works would be visible to large numbers of commuters and residents, the visual effect of the works would be minor and in keeping with the existing visual environment. The signage proposed would accord with the relevant RTA standards and would not be of such an extent that it would 'clutter' the streetscape.

3.4.3 Mitigation and management measures

As a minimum, the existing chain-link fencing would be reinstated along the eastern edge of the widened shared-use path at White Bay. The use of clear screens as a replacement for this fencing would be investigated. All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road project. (included in Appendix B of this report).

3.5 Socioeconomic

The study area was first settled in the 1800s. Today, it contains numerous land uses and built forms. These include former industrial sites, a range of low-density and medium-density housing, historic commercial and retail premises, and port and boating facilities. Surveys of the project corridor, adjacent land uses, the Drummoyne, Rozelle and Balmain peninsulas, and also the wider catchment of Victoria Road were undertaken for the Inner West Busway along Victoria Road project to better understand the area's social and economic environment, and to identify the potential impacts of the project on the key user groups.

The community consultation process undertaken during project development suggests that residents have concerns regarding the following social and economic aspects of the study area as they relate to the project:

- Relationship to the water body.
- Community facilities, such as parks and schools.
- Retail and commercial activity.
- Traffic movements through the area.
- Amenity of the area, including traffic, noise, air quality, open space and recreation, views and vistas, and parking.

Furthermore, the community is concerned about additional traffic generated by other significant urban development projects, and there is a desire that local amenity be maintained or improved.

Issues raised by local businesses during the consultation period include loss of parking facilities, location of bus stops, transit lane timing, noise, and air quality.

3.5.1 Potential impacts of the modified project

During construction pedestrians using the footpath in the vicinity along of the corridor would experience impacts from works associated with the installation of project elements (such as the location of services, construction of the widened shared path, installation of signage, etc). These impacts would be considered minor as access would be maintained, and no economic impacts are anticipated. Social impacts would involve minor pedestrian inconvenience while temporary access provisions are in place. Operational impacts would include improvements to safety and access for pedestrians, cyclists, and bus users. There would be minimal disturbance to businesses.

During operation safer cycling and pedestrian facilities should reduce the number and severity of collisions, which would provide social benefits.

3.5.2 Mitigation and management measures

- All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road project (included in Appendix B of this report).

3.6 Non-Aboriginal heritage

3.6.1 Existing environment

The Victoria Road Upgrade (Inner West Busway along Victoria Road Environmental Assessment identifies heritage items along the corridor. The White Bay Power Station is the only item in proximity to the proposed modification. The station is a former coal-fired power station and is the only power station in NSW to retain in situ a full set of both structures and machinery from early and mid twentieth century. It is a rare surviving element in an area of Sydney that was once almost entirely dependent on such industries for its livelihood.

The White Bay Power Station is listed as State significant with a Conservation Management Plan (CMP) prepared in January 2004.

The CMP contains general and specific policies for development to ensure that the heritage significance is maintained and respected. Specifically, new developments in the vicinity of the White Bay Power Station must carefully consider its bulk, scale and placement in order to respect the visibility and prominence of the power station as a harbour side landmark (CMP 2004, Vol II: 92). New

developments should be contemporary in design to distinguish them from the earlier work using preferred materials such as steel and glass with minimum masonry elements (CMP 2004, Vol II: 154).

3.6.2 Potential impacts of the modified project

Heritage consultants, AHMS, undertook a site inspection on March 31 2009 to assess the potential heritage impacts of the proposed cycle path and produced a Heritage Impact Statement detailing their findings (AHMS June 2009).

The proposed widened share path would require land acquisition of approximately 40m^2, and an additional leased area of 150m^2 surrounding the acquired land of White Bay Power Station. The proposed acquired land represents a small proportion (approximately less than one percent) of the heritage site as a whole. It is considered that this would not detract from the current heritage significance of the White Bay Power Station. Leased land is required on a temporary basis for the construction phase of the project.

The design of the proposed widened shared path within the heritage curtilage of the White Bay Power Station has considered the policies identified in the CMP.

The proposed modification project area does not contain heritage fabric (including archaeological) associated with the White Bay Power Station and therefore no physical direct impacts on heritage fabric within the heritage curtilage are anticipated.

Access would be gained via an existing track from the project area along part of a railway corridor to the coal yard. There are no temporary or permanent physical heritage impacts on significance elements of White Bay Power Station associated with gaining access to the project area during construction phase.

It has been identified that there is potential for undiscovered items of archaeological interest buried along Victoria Road to be uncovered during works. Measures would be implemented during construction to avoid or minimise any impacts on any items discovered during construction. No potential impacts were identified for the White Bay power station in the Environmental Assessment.

While no heritage impacts are anticipated during any of the works, there is the potential for accidental damage during the construction phase. In particular accidental impact risks are associated with heritage buildings that bound the project area: the administration block and the staff canteen. The implementation of appropriate management measures, however, would reduce this risk. These measures are outlined in below. Potential impacts associated with vibration from construction activities are discussed in Section 3.3.

Table 3-1 Potential impacts on heritage items or conservation areas

Heritage item /area	Proposed works	Potential impact
White Bay Power Station (former)	• Access to project area during construction phase. • Construction activities within the leased project area. • Widened shared path way.	• Accidental physical damage to heritage buildings during transporting materials to and from the project area. • Accidental physical damage to adjacent heritage fabric of the Administrative Building and Staff Canteen. • Indirect visual heritage impact to views to and from the Administrative Building and Staff Canteen.

3.6.3 Mitigation and management measures

- Detail design would ensure the northern end of the shared path structure be at least one metre from the Administrative Building to ensure direct impact is avoided.
- All works must be designed to reduce visible impact as per CMP Policy 1.2.2, 1.2.3 and 1.2.11:
  - Any fencing along the eastern edge of the widened shared path must not reduce visibility and sight lines to, from and past the White Bay Power Station below its current level.
- Appropriate pedestrian safety fencing or railing would be used in replacement of any safety fencing to maintain clear views to the White Bay Power Station and beyond from Victoria Road.
- Prior to construction the southern portion of the Administrative Building would be archived as per CMP Policy 2.2.
- The AHMS Heritage Impact Statement and photographic archival recording would be submitted Heritage Branch, the Leichhardt Council, City of Sydney Council and the State Library of NSW as per CMP Policy 2.3.
- The construction boundary fence is offset from the Staff Canteen and Administration Building to avoid damage to the heritage fabric and impacting on the visual appearance of these buildings, and
- Provide clearly marked temporary access for vehicular transport through the heritage site to ensure vehicles have adequate space to move between heritage buildings.
- Ensure all staff are informed of the heritage value of the Staff Canteen and Administration buildings
- Implement careful construction methods to avoid physical impacts.
- All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road project (included in Appendix B of this report).

Other issues

3.7 Air quality

3.7.1 Existing environment

A search of the DEWHA National Pollution Inventory was conducted on 23 January 2009 for the suburb of Rozelle. In Rozelle it was reported that there are 72 substances from 29 sources influencing the air pollution in the area. The top six sources of pollution are:

- Motor vehicles (23 per cent).
- Domestic/commercial solvents/aerosols (14 per cent).
- Architectural surface coatings (13 per cent).
- Solid fuel burning (10 per cent).
- Aeroplanes (9 per cent).
- All others (31 per cent).

3.7.2 Potential impacts of the modified project

It is anticipated that the modified proposal would not result in a notable increase of any of the above sources of pollution than the approved project given the size and nature of the activities involved. Once the works are completed, there is the potential to improve air quality as the improved pedestrian and cyclist facilities may encourage more people to walk or cycle through the area rather than drive.

3.7.3 Mitigation and management measures

All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road project (included in Appendix B of this report).

3.8 Geology and soils

3.8.1 Existing environment

The geology of the area is Hawkesbury sandstone (Sydney 1:100,000 Geological Sheet, Geological Survey of NSW). Soils found through Drummoyne, Rozelle and the foreshores of Iron Cove contain highly disturbed soils of the Hawkesbury and Lambert soil landscape units. Generally, the soils in the study area have been heavily modified by a long history of extensive industrial, commercial and residential development.

None of the works would be undertaken within areas containing or likely to contain acid sulfate soils.

As mentioned above, a search of the NSW DECCW contaminated sites register, conducted in 18 January 2010, indicated 25 contaminated sites in the Leichhardt and Canada Bay LGAs. A remediation order for White Bay Power Station was issued in 1991 for the removal of asbestos, the removal of drums and vessels which contained various chemicals and chemical wastes, and the decontamination of soil contaminated with chemical wastes such as hydrocarbons. This order was revoked in 1998, indicating that the remediation order had been enforced.

3.8.2 Potential impacts of the modified project

The widening of the shared-use path at White Bay would involve an excavation into the rock beneath the existing path and there is the potential to cause instability in the rock embankment. It is not anticipated that the other components of the modified activity would result in adverse impacts to the geology or topography of the study area.

All other subsurface works would be localised. At all locations the pavement and any grassed areas would be restored upon completion of the works. The potential for erosion and sedimentation at these sites is considered to be low.

Contaminants have been identified at the White Bay Power Station site, however as the excavations would largely be undertaken in rock, it is considered unlikely that contaminated material would be uncovered and need specific stockpiling or transportation methods. However, as there is potential to encounter contaminated soil during any subsurface works, sub soil samples would be taken to determine the extent of any potential contamination.

During construction, if suspected contaminated soils are encountered, samples would be sent to the laboratory for analysis to confirm the nature of the material and the material stockpiled and contained to prevent mobilisation of contaminants offsite. Once disturbed, there is also the potential for contaminants to enter the waterway as runoff into the stormwater system in the absence of appropriate management measures. While there is the potential for these impacts to occur, with the implementation of standard management measures, the risk of these impacts occurring is considered minimal.

3.8.3 Safeguards and management measures

- Sub surface soil samples would be taken and analysed to determine the nature of any fill material.
- All activities at White Bay would be undertaken in accordance with a contaminated site management plan prepared as part of the CEMP.
- All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road Cyclist and Pedestrian Improvements project would be implemented (included in Appendix B of this report).

3.9 Water

3.9.1 Existing environment

There is no natural riparian vegetation on the shoreline of the adjacent White Bay. The shoreline has been substantially modified during the construction of wharf facilities. The creeks running through the area (such as Johnstons Creek and Whites Creek) have been concrete lined and are now devoid of riparian vegetation. Mangrove swamps and salt marsh communities that once bordered these waterways have been reclaimed and filled-in.

Leichhardt State of the Environment Report 2008 (LMC, 2008) states that due to the high proportion of impermeable surfaces in the Leichhardt LGA (roofs, roads, paving), Leichhardt has high volumes of stormwater runoff. This runoff collects and carries a large variety of pollutants and particles (sediment, litter, oil) that are washed directly into waterways, which reduces water quality in local waterways. Similarly, the *Canada Bay State of the Environment Report 2008* (City of Canada Bay Council, 2008) states that the LGA is a highly urbanised, and as such water quality will always be a major environmental issue in surrounding waterways.

3.9.2 Potential impacts of the modified project

The potential for soil disturbance, erosion and sedimentation is discussed in Section 3.7. With the implementation of the proposed management measures the potential for soil erosion is considered minimal and therefore the potential for water pollution through sediment transport would also be low.

Accidental spillage and/or release of paints, fuels, lubricants and or other fluids from machinery and vehicles may result in water pollution. While there is the potential for this to occur, the risk is considered minimal with the implementation of standard management measures and emergency response procedures.

The potential for groundwater or surface runoff to become contaminated through contact with any contaminated soils is considered low, as contaminated soils are not expected to be encountered (the works at White Bay would be largely within rock not soil) and controls would be placed around excavations to prevent stormwater flowing through the sites. The construction of the widening of the White Bay shared use path would require excavations greater than about one metre deep.

3.9.3 Mitigation and management measures

- All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road Cyclist and Pedestrian Improvements project would be implemented (included in Appendix B of this report).

3.10 Biodiversity

3.10.1 Existing environment

The study area is located in a highly modified urban environment. There is scattered vegetation along and surrounding Victoria Road that consists largely of planted street trees, grassed recreation parks, grassed verges and ornamental gardens. There is limited fauna habitat and there are no bushland reserves. The biodiversity values are considered to be low and are extant largely beyond the road reservation within private and public lands.

The area surrounding the widened shared-use path at White Bay has been extensively cleared with no evident remnant vegetation and only emergent grasses and weeds scattered amongst small pockets of soil. The site represents a highly modified urban environment, disturbed by noise and vibration from nearby Victoria Road, weeds, and feral animals. The sites are only likely to provide habitat for common native flora and fauna, and for highly mobile species such as birds and possums.

There are no hollow-bearing trees or large woody debris in the study area, and rocks are rare. Absence of these features suggests there is little available habitat for ground-dwelling mammals or reptiles, though leaf litter may provide some habitat for common reptiles such as garden skinks.

A flora and fauna assessment was undertaken for the Inner West Busway along Victoria Road project (Ecological, 2008). In addition an investigation of the NPWS GIS Flora and Fauna database on 29/12/09 indicated no occurrences of threatened or regionally significant flora species listed on the *Threatened Species Act 1995* (TSC Act) or EPBC Act have been found in the area surrounding the proposed modification in Rozelle.

3.10.2 Potential impacts of the modified project

Some vegetation might need to be removed to enable the widening of the shared-use path at White Bay. This is likely to only require removal of weeds and some groundcover. Given the extent of weed infestation within this area, this impact would not be detrimental.

3.10.3 Mitigation and management measures

- All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road Cyclist and Pedestrian improvements project (included in Appendix B of this report).

3.11 Aboriginal heritage

3.11.1 Existing environment

During January 2008 an Aboriginal site survey of the study area for the Inner West Busway along Victoria Road project was carried out by a representative of the Metropolitan LALC and the RTA's Aboriginal Cultural and Heritage Advisor (ACHA) in order to identify any Aboriginal heritage constraints to the project. The survey was carried out by foot. No Aboriginal objects or places were found within the study area.

A search of the DECCW Aboriginal Heritage Information Management System (AHIMS) was conducted on 23 September 2008. The search did not identify any Aboriginal objects or places in or near the study area.

3.11.2 Potential impacts of the modified project

During consultation with LALC and ACHA for the Victoria Road Upgrade (Inner West Busway along Victoria Road) project, it was identified that no Aboriginal objects and places have been identified in or near the study area. Given the substantial development that has taken place within the area it was felt that there is little potential for previously unidentified objects to be disturbed during the proposed works.

3.11.3 Mitigation and management measures

- All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road project (included in Appendix B of this report).

3.12 Waste minimisation and management

3.12.1 Potential Impacts of the modified project

Construction and maintenance of new and existing road infrastructure involve a range of activities. These include establishment of work sites, operation of site amenities, demolition and reconstruction of road surfaces and medians, bridge works, and decommissioning of work sites. These activities can produce a number of waste types such as:

- Concrete, asphalt and scrap metal from demolition works and surplus materials during construction.
- Excess spoil such as soil, rock and sediment, which can include acid sulfate soils (ASS) and other contaminated material.
- Green waste from clearing activities during site establishment.
- Waste fuels, oils, liquids and chemicals from machinery operation and maintenance.
- Miscellaneous packaging waste brought on site during deliveries or by workers, such as cardboard, paper, plastic and glass.
- General garbage and sewage from compound sites.

Waste generated during operation of a project is likely to be minimal and would be typical of that produced during routine maintenance activities. It is likely to include materials similar to those listed above for construction activities.

The proposed works would produce some amounts of excess spoil. There is also the potential, while unlikely, to encounter contaminated soils (refer to Section 3.2). If exposed, these soils would require management to avoid contamination of the local waterway and site workers.

Small amounts of litter and other material such as packaging would be generated during the works.

3.12.2 Mitigation and management measures

- All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road Cyclist and Pedestrian Improvements project (included in Appendix B of this report).

3.12.3 Climate change and greenhouse gas emissions

The term 'climate change' refers to changes in the earth's climate in modern times. According to the

Intergovernmental Panel on Climate Change (IPCC), observational evidence shows that the warming of the Earth's climate system is unequivocal, with recorded increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global sea levels (IPCC, 2007). These changes in climate are believed to be as a result of the increase in the concentration of greenhouse gases in the earth's atmosphere. Since the Industrial Revolution human activity – particularly the burning of fossil fuels (coal, oil and natural gas), agriculture and land clearing – has resulted in a marked increased in greenhouse gas emissions (DECCW, 2009).

The transport sector produces a significant volume of greenhouse gases through the burning of fossil fuels. In NSW it is estimated that the transport sector contributes to 14 per cent of all greenhouse gas emissions (DECCW, 2009). As the climate changes, adaptation measures will need to involve planning to reduce the vulnerability of infrastructure to climate change, taking into account such issues as:

- The increased frequency and duration of rainfall and storms.
- Sea level rise.
- Changes in water content of soils.
- Changes in temperature.
- Changes in wind speed.

3.12.4 Potential impacts of the modified project

The project would encourage the use of public transport and encourage alternative modes of transport within the area by improving the quality of cyclist and pedestrian facilities at White Bay. This may result in a reduction in greenhouse gas production. While the detailed design of the proposal would seek to further minimise greenhouse gas emissions, the following elements of the project may also result in the generation of greenhouse gases.

- Greenhouse gases generated by site activities such as those from the combustion of fossil fuels in construction plant and equipment.
- Greenhouse gas emissions associated with the embodied energy in construction materials, or in the provision of services provided by external parties such as transport of materials and disposal of waste to landfill.
- Greenhouse gas emissions associated with the use of purchased energy (electricity) for the operation of street lights and other infrastructure.
- Greenhouse gas emissions embodied in maintenance materials or maintenance services.

The proposal would improve the quality of cyclist and pedestrian facilities at White Bay and encourage alternative modes of transport along the corridor. This may result in a reduction in greenhouse gas

production. While the detailed design of the proposal would seek to further minimise greenhouse gas emissions, the elements discussed above may also result in the generation of greenhouse gases.

3.12.5 Mitigation and management measures

- All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road project (included in Appendix B of this report).

3.13 Hazards and risks

3.13.1 Potential impacts of the modified project

In the absence of adequate environmental and safety controls, a number of hazards and risks have the potential to pose a danger to site personnel, members of the public and the environment. Hazards and risks with the potential to affect the environment throughout construction may include:

- Release of dangerous and hazardous materials to the receiving environment.
- Generation of construction waste.
- Increased sedimentation of receiving waters.
- Disturbance of contaminated soils and sediments.
- Maintenance of construction equipment and plant.
- Disturbance of potential acid sulfate soils, resulting in production of sulfuric acid.

The hazards and risks would be addressed through the implementation of standard and best practice mitigation and management measures which would minimise the potential for adverse impacts on the environment during the construction process.

Operational hazards and risks as a result of the project would include those common to urban roads. There would be potential for contaminants from the road, such as engine oil and litter, to adversely affect the receiving environment through stormwater flows. To minimise impacts, controls would be placed around drains and spill kit materials made available at the work site location.

Changed traffic conditions along Victoria Road, and temporary relocation of the bus stops at White Bay may cause confusion for some drivers, especially those who are not regular users of the road. Traffic controllers would be on site to direct cyclist, pedestrians, and motor vehicle traffic during construction.

3.13.2 Mitigation and management measures

- All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road project (included in Appendix B of this report).

3.14 Cumulative impacts

3.14.1 Potential impacts of the modified project

As discussed previously, there is potential construction impact of the shared use path for residents in the vicinity. This proposal would not, however, result in any substantial impacts during construction or operation that cannot be managed through the implementation of appropriate management measures. Mitigation and management measures

3.14.2 Mitigation and management measures

- All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road Cyclist and Pedestrian Improvements project (included in Appendix B of this report).

4 Environmental management

4.1 Environmental management plans

Environmental mitigation and management measures outlined in Table 4-1 below would minimise the identified potential adverse environmental impacts of the proposal on the surrounding environment. For details of the Ministers' Condition of Approval and statement of commitments of mitigation and management measures for the Inner West Busway along Victoria Road project please refer to Appendix B.

A construction environmental management plan (CEMP) has been prepared for the Inner West Busway along Victoria Road project. The environmental management plan would be updated to include the additional mitigation measures outlined in Table 4-1 below and any additional measures specified in the DoP's conditions of approval for the proposal. The CEMP would be provided to the RTA Senior Environmental Officer, Sydney Region, and to the Environment Representative for approval before the commencement of any site works.

4.2 Summary of mitigation and management measures

Table 4-1 Summary of environmental mitigation and management measures

Environmental aspect	Safeguard
Transport	• The White Bay bus stop would be temporarily relocated to a location determined in consultation with STA. • All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road project.
Contamination	• Sub surface soil samples would be taken and analysed to determine the nature of any fill material. • Should the area for the compound area be found to be contaminated, appropriate management strategies would be discussed with the SHFA. • If required, a contaminated site management plan would be prepared as an addendum of the CEMP. • All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road project.
Noise and vibration	• The noise and vibration impacts for the proposal would be managed in accordance with the approach described in the Construction Vibration and Noise Management Plan prepared for the Inner West Busway along Victoria Road project. • All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road

Environmental aspect	Safeguard
Visual amenity and urban design	• As a minimum, the existing chain-link fencing would be reinstated along the eastern edge of the widened shared-use path at White Bay. • All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road
Social and economic	• All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road
Non-Aboriginal heritage	• Detail design would ensure the northern end of the shared path structure be at least one metre from the Administrative Building to ensure direct impact is avoided. • All works must be designed to reduce visible impact as per CMP Policy 1.2.2, 1.2.3 and 1.2.11: – Any fencing along the eastern edge of the widened share path must not reduce visibility and sight lines to, from and past the White Bay Power Station below its current level. • Appropriate pedestrian safety fencing or railing would be used in replacement of any safety fencing to maintain clear views to the White Bay Power Station and beyond from Victoria Road. • Prior to construction the southern portion of the Administrative Building would be archival recorded as per CMP Policy 2.2. • The AHMS Heritage Impact Statement and photographic archival recording would be submitted Heritage Branch, the Leichhardt Council, City of Sydney Council and the State Library of NSW as per CMP Policy 2.3. • The construction boundary fence is offset from the Staff Canteen and Administration Building to avoid damage to the heritage fabric and impacting on the visual appearance of these buildings, and • Provide clearly marked temporary access for vehicular transport through the heritage site to ensure vehicles have adequate space to move between heritage buildings. • Ensure all staff are informed of the heritage value of the Staff Canteen and Administration buildings • Implement careful construction methods to avoid physical impacts. • All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road
Air quality	• All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road

Environmental aspect	Safeguard
Geology and soils	• Sub surface soil samples would be taken and analysed to determine the nature of any fill material. • All activities at White Bay would be undertaken in accordance with a contaminated site management plan prepared as part of the CEMP. • All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road project would be implemented.
Water	• All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road project would be implemented.
Biodiversity	• All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road project would be implemented.
Aboriginal heritage	• All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road project would be implemented.
Waste minimisation and management	• All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road project would be implemented.
Climate change and greenhouse emissions	• All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road project would be implemented.
Cumulative impacts	• All relevant mitigation and management measures proposed for the Inner West Busway along Victoria Road project would be implemented.

5 Consultation

5.1 Community and stakeholder involvement

Consultation activities associated with the Inner West Busway along Victoria Road project have included a project website, a project hotline, community update newsletters, and community and stakeholder meetings. During consultation on the Inner West Busway along Victoria Road project, almost 200 submissions identified the need for improvements to cyclist and pedestrian facilities including the White Bay area of Rozelle.

Following consultation with local BUGs, the RTA developed a proposal to improve cyclist facilities in the Victoria Road corridor and a Part 5 assessment was displayed. As discussed in section 3, the modification addresses impacts to the bus shelters at White Bay.

Consultation activities of relevance to the modification include:

- A meeting with Bicycle NSW on 29 January 2008. This meeting was part of consultation for the Inner West Busway along Victoria Road project, with the purpose of discussing the proposal from a cycling perspective.
- A meeting with Canada Bay and Leichhardt BUGs on 7 February 2008. At this meeting the BUGs presented to the team a list of their requests for improvements to cycling facilities within the Victoria Road corridor.
- Specialist advice sought from Warren Solomon of Sustainable Transport Consultants in conjunction with Dick Van Den Dool of GTA consultants. The consultants were asked to propose cycleway improvements along the general corridor of Victoria Road, using details of the proposed Inner West Busway along Victoria Road project and in reference to the BUGs' improvements list and bicycle plans from both councils. In September 2008, the RTA published ideas to improve cyclist and pedestrian facilities in the Victoria Road corridor. Over 50 responses were received from the community.
- A combined meeting with Canada Bay and Leichhardt councils on 24 July 2008. The RTA tabled the proposals included in the GTA report for council feedback. In addition, other proposals and suggestions from council were sought and noted.
- A meeting with City of Canada Bay Council on 26 September 2008. This meeting was held to assess the options for the cycleway connection from the new bridge (constructed as part of the Victoria Road upgrade project) to the Bay Run at Drummoyne.
- A community update newsletter was distributed to 28,000 residents in the local area in September 2008. The purpose of the newsletter was to inform the community of the proposed improvements to cyclist and pedestrian facilities and to invite them to make a submission on the proposal. Over 50 submissions regarding the proposed improvements were received. These submissions were taken into consideration during the development of the preferred option.
- Attendance at various Leichhardt Municipal Council meetings including the Bicycle Advisory Committee meeting (15 April 2009 and 21 May 2009), the Traffic Committee meeting (8 May 2009) and the Ordinary Council meeting (26 May 2009).
- Attendance at the Canada Bay Council Traffic Committee meeting (21 May 2009) and a briefing at the Canada Bay Council Councillor Workshop (9 June 2009).
- A site inspection of the project area was undertaken on 18 June 2009 in conjunction with Leichhardt Municipal Council and the Bicycle Advisory Committee/Leichhardt Bicycle Users Group representatives.

- As part of the Inner West Busway along Victoria Road project, consultation was undertaken with the Metropolitan Local Aboriginal Land Council (Metropolitan LALC). Following a site visit and survey of the area, the Metropolitan LALC indicated that they had no objections to the project and confirmed that no Aboriginal cultural heritage constraints exist. As the cyclist and pedestrian improvements proposal is located within the same area, further consultation with the Metropolitan LALC was not required.
- Public display of an REF assessing the proposed improvements to cyclist and pedestrian facilities between 26 November to 23 December 2009. The environmental impacts of the White Bay component were also assessed in the REF. Thirty nine submissions were received on the cyclist and pedestrian improvements REF. Work is well underway on preparing the submissions report

Outcomes of the consultation have been used to develop the preferred option for the cycleway and pedestrian improvements proposal which encompasses the proposed modification detailed in this report.

5.2 Future consultation

If the proposal is determined to proceed, further consultation would be required to inform the community and other stakeholders of the proposal. Communications activities for the proposed works would include the following:

- A Communications Action Plan would be prepared for the project to outline the communication activities that would be undertaken.
- Further consultation with the local councils to inform them of the works, establish whether they have any plans that would be disrupted by such works, and to identify any key stakeholders that should be notified.
- Further consultation with the local BUGs and Bicycle NSW.
- Consultation with public utilities where required.
- Providing written notification via letterbox drops before work commences, including the details of the proposed works, to local businesses and residents in the immediate vicinity.
- Placing advertisements in local newspapers, where necessary, describing the night works and temporary changes to traffic conditions associated with the proposal.
- Maintaining a complaints hotline during both day and night-time operations and actioning and recording complaints in a database.

6 Conclusion

The consistency assessment determined that proposed design alterations are consistent with objectives of the approved project and do not result in significant changes to the project. In addition, it was not previously assessed for additional land to be acquired from SHFA for the widening of the shared use path behind the bus shelters at White Bay. However, potential impacts on the White Bay Power Station site are not consistent with those identified in the Victoria Road upgrade Environmental Assessment (October 2008) and the Minister's Conditions of Approval for potential impacts related to heritage value for this site and encroachment onto SHFA.

The modified project would assist in improving the quality of cyclist and pedestrian facilities within Drummoyne and Rozelle as part of the key objectives of the approved project. These works would address numerous issues raised by the community and other stakeholders during consultation for the Inner West Busway along Victoria Road project.

The modified project would respond to the project objectives by improving safety for cyclists and pedestrians, and providing better links for cyclists to cycleway facilities including the Bay Run.

Negative environmental impacts are generally limited to temporary disruptions during construction (such as noise, traffic and visual impacts), particularly at night.

Negative environmental impacts have been identified as mostly short-term and manageable. The proposal is not expected to result in any long-term impacts on the environment. No significant impact on the environment as a result of the proposal is expected.

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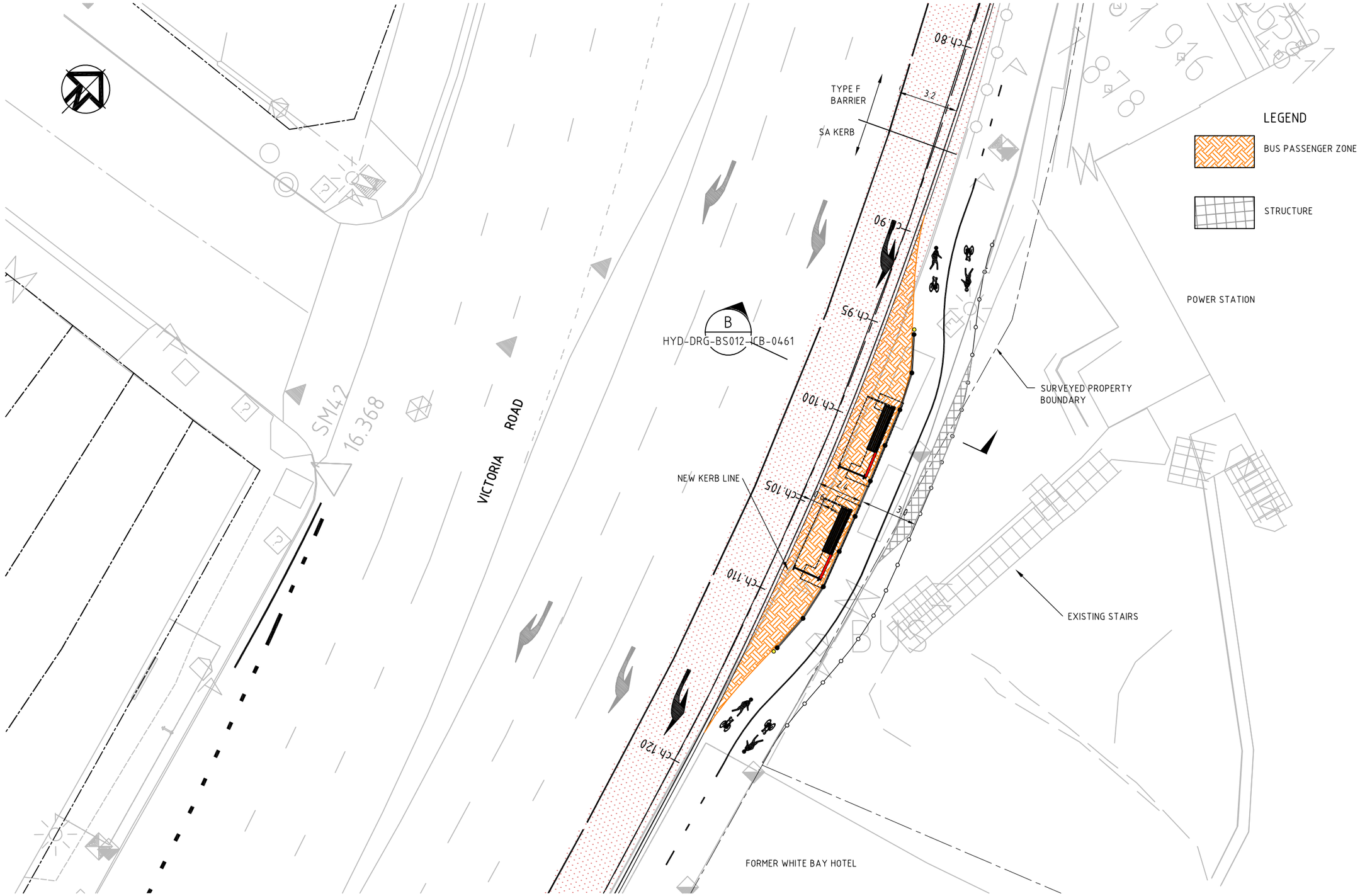
8 Appendix A

Draft design for the shared path at White Bay



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NOT TO BE USED FOR CONSTRUCTION

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Bridge to Bay ALLIANCE

INNER WEST BUSWAY, ALONG VICTORIA ROAD
ROZELLE
WHITE BAY BUS STOP
PLAN OPTION 8
SHEET 1 OF 3

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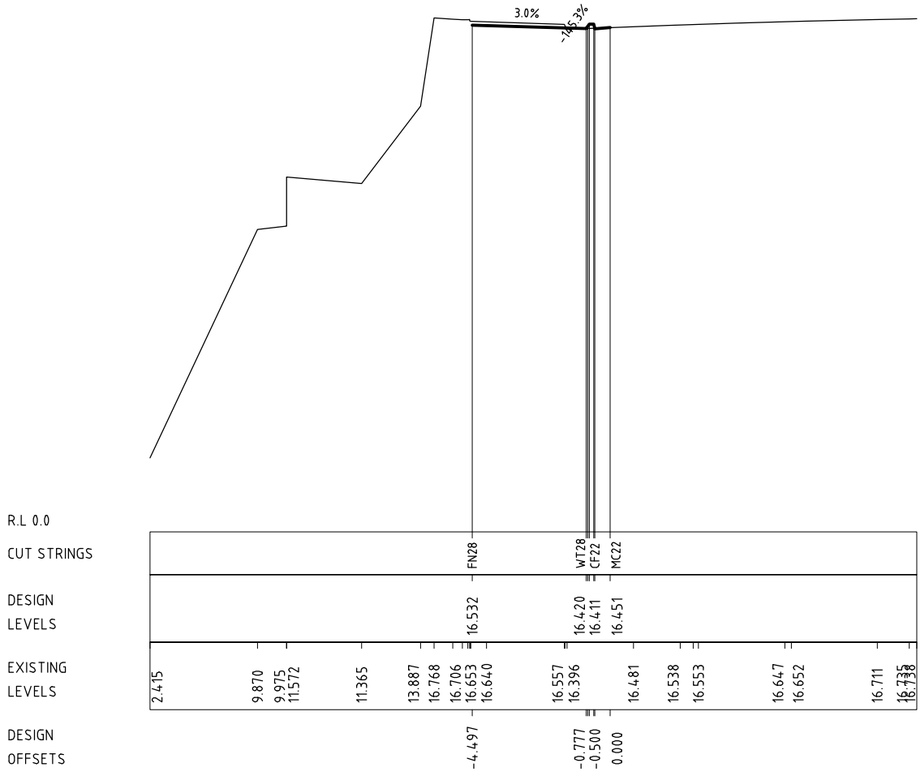

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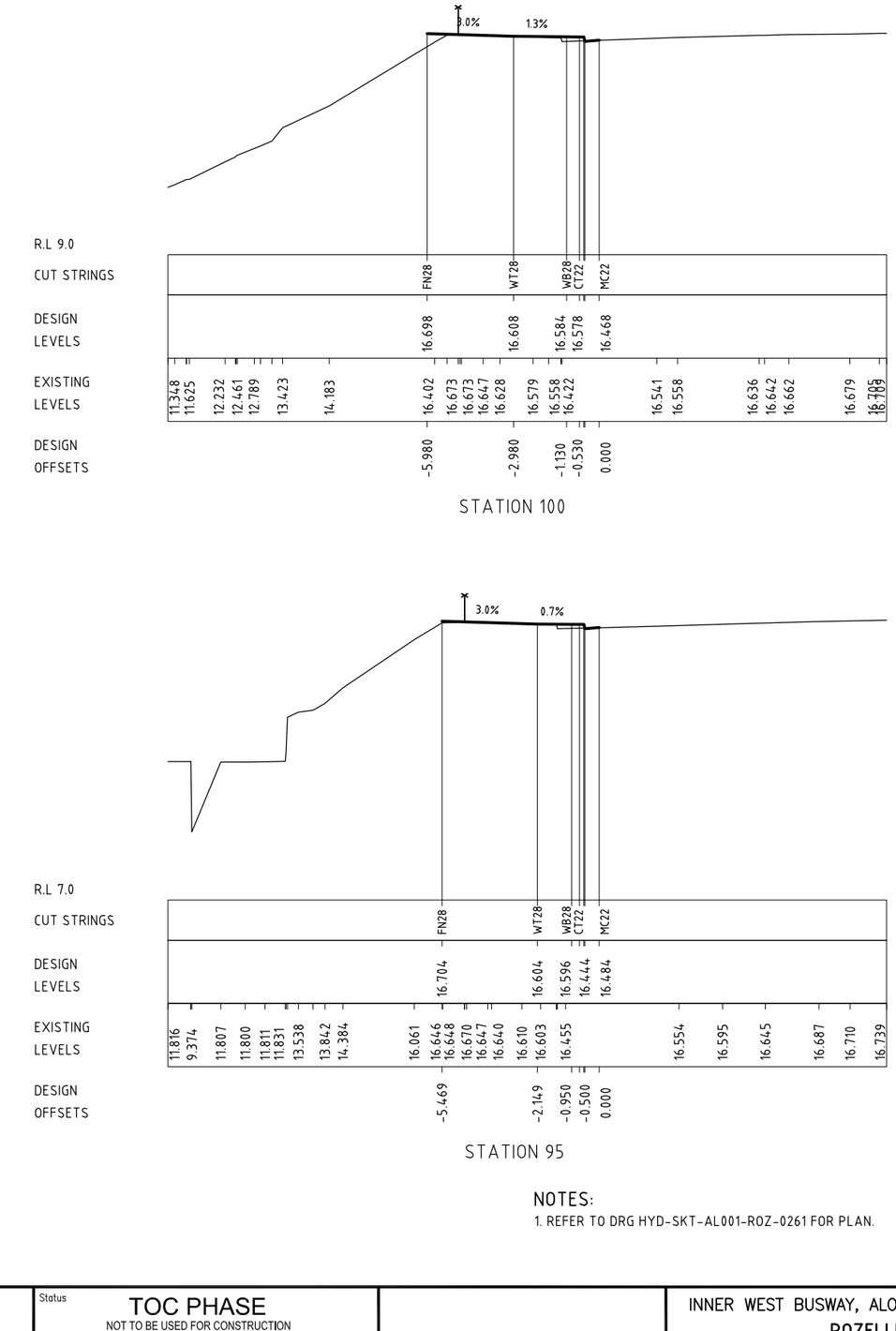

STATION 100

STATION 95

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Scales

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Status: TOC PHASE
NOT TO BE USED FOR CONSTRUCTION

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Date Printed: 26 May 2010 - 06:45PM

Filename: HYD-SKT-AL001-ROZ-0262.dwg

Bridge to Bay ALLIANCE

INNER WEST BUSWAY, ALONG VICTORIA ROAD
ROZELLE
WHITE BAY BUS STOP
CROSS SECTIONS OPTION 8
SHEET2 OF 3

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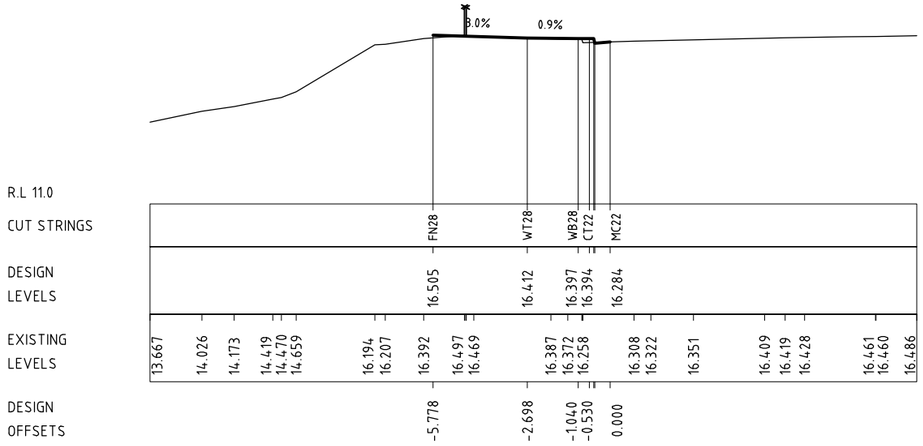

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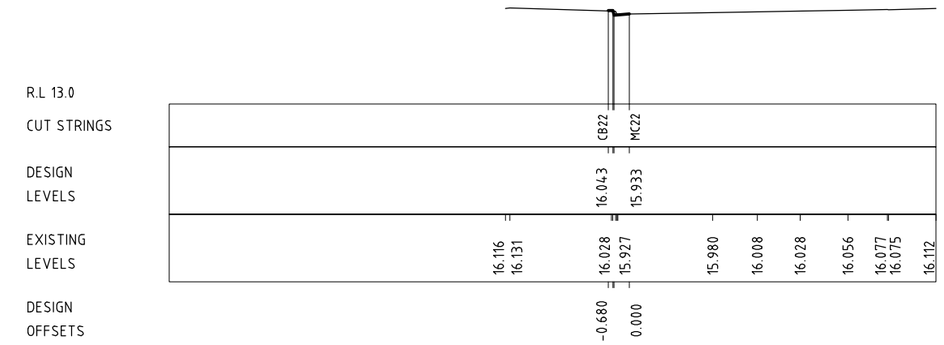

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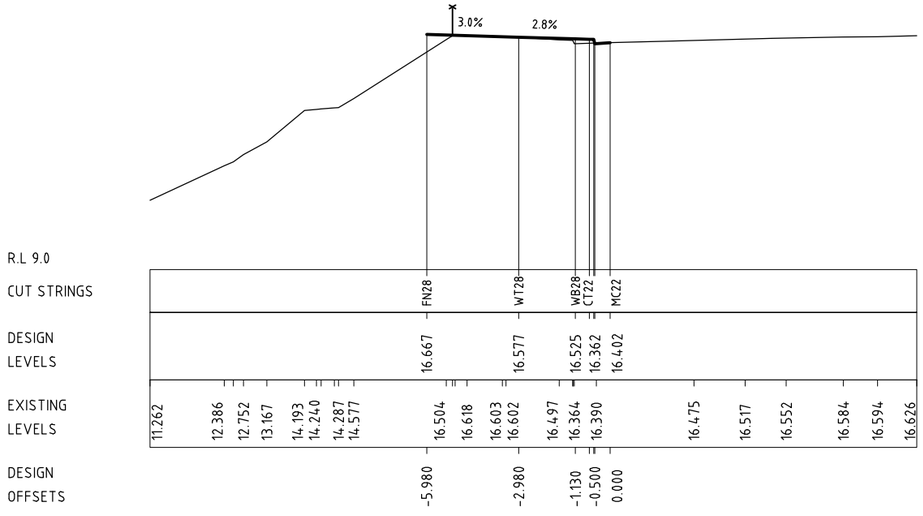

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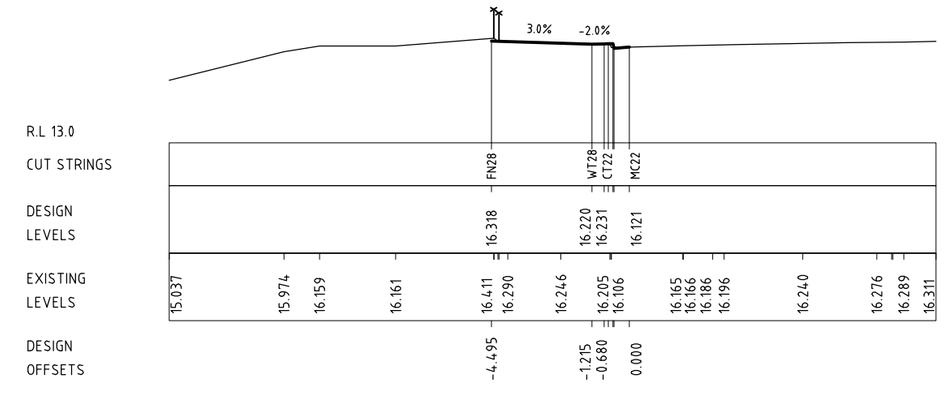

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Original Size: A3

Date Printed: 26 May 2010 - 06:45PM

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Bridge to Bay ALLIANCE

INNER WEST BUSWAY, ALONG VICTORIA ROAD
ROZELLE
WHITE BAY BUS STOP
CROSS SECTIONS OPTION 8
SHEET3 OF 3

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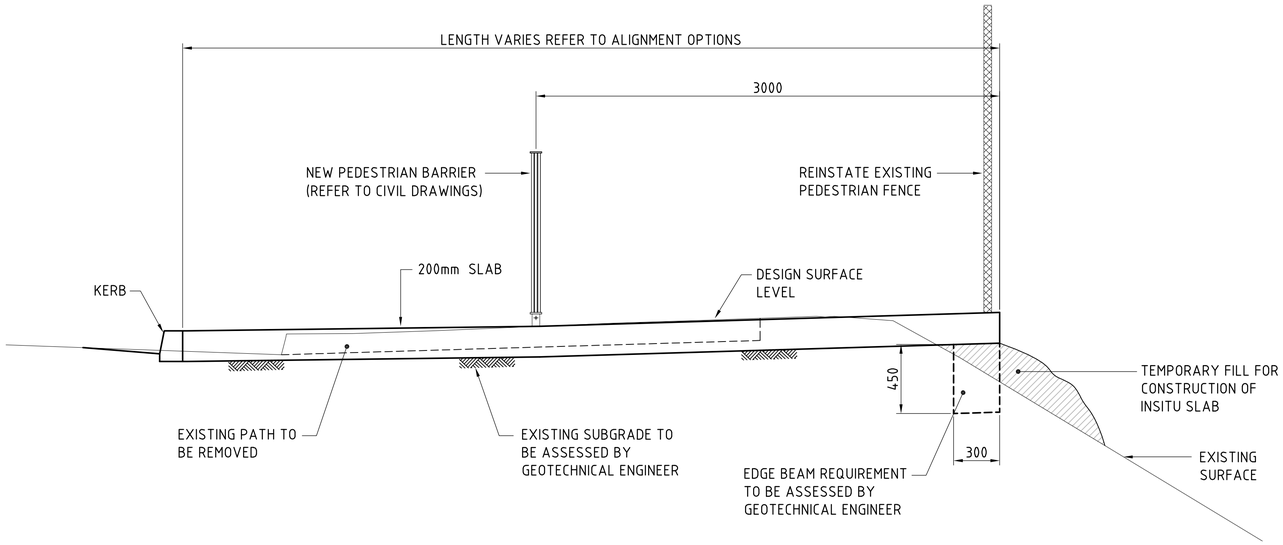

SECTION B - OPTION 8 - TYPICAL SECTION

\# CAST INSITU SLAB - FULL WIDTH OF FOOTPATH

NOTES

1. CAST INSITU SLAB : N12@150mm EW TOP & BOT APPROXIMATE

DRAFT
FOR PRELIMINARY COSTING
PURPOSE ONLY

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BAULDERSTONE
RTA
Hyder
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NOT TO BE USED FOR CONSTRUCTION

Original Size	A1	Drawn	
Coordinate System	MGA ZONE 56	Designed	
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RTA Reg'n No 0165.255.BC.2900

Bridge to Bay ALLIANCE

MAIN ROAD No. 165 MUNICIPALITY OF LEICHHARDT

WHITE BAY
PATH WIDENEING
OPTION 8

Company	Type	Drawing No. (LOT-ZONE-NUMBER)	Issue
HYD	SKT	BS012 - ICB - 0461	D1

50mm on Original

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9 Appendix B

Appendix A of the Construction environment management plan: project approval requirements

Inner West Busway along Victoria Road

Project approval requirements

Construction environmental management plan

(Appendix A)

Project approval requirements

Revisions

Rev	Date	Description	Prepared	Reviewed	Approved
1	19/03/09	First draft	M Thomas	R Walters / A Davidson	
2	03/04/09	Second draft	M Thomas	A Pearse / A Grainger	
3	16/04/09	Draft	M Thomas	R Walters / R MacQueen	
A	28/04/09	First issue	M Thomas	C McCallum	

Note: This document becomes uncontrolled once printed

Victoria Road upgrade Minister's conditions of approval (MCoA)

Number	Condition	Reference
1	**Administrative conditions**	
	Terms of approval	
1.1	The Proponent shall carry out the project in accordance with the: a) Major Project Application 08_0136; b) *Victoria Road Upgrade – Environmental Assessment* (four volumes), prepared by the Roads and Traffic Authority and dated October 2008; c) *Victoria Road Upgrade – Submissions Report*, prepared by the Roads and Traffic Authority and dated February 2009; and d) The conditions of this approval.	Noted
1.2	In the event of an inconsistency between: a) the conditions of this approval and any document listed from the condition 1.1a) to 1.1c) inclusive, the conditions of this approval shall prevail to the extent of the inconsistency; and b) any documents listed from condition 1.1a) to 1.1c) inclusive, the most recent document shall prevail to the extent of the inconsistency.	Noted
1.3	The Proponent shall comply with the reasonable requirements of the Director-General arising from the Department's assessment of: a) any reports, plans or correspondence that are submitted in accordance with this approval; and b) the implementation of any actions or measures contained in these reports, plans or correspondence.	Noted
1.4	The Proponent may construct and/ or operate the project in stages with commensurate staging of compliance with the conditions of this approval. Where the project is to be staged, the Proponent shall submit details of the staging to the Director-General, including details of how compliance with the conditions of this approval will be ensured across and between the stages of the project.	Staging plan
	Limits of approval	
1.5	This approval shall lapse ten years after the date on which it is granted, unless the works the subject of any related project approval are physically commenced on or before that date.	Noted
	Statutory requirements	

Number	Condition	Reference
1.6	The Proponent shall ensure that all licences, permits and approvals are obtained as required by law and maintained as required with respect to the project. No condition of this approval removes the obligation for the Proponent to obtain, renew or comply with such licences, permits or approvals.	CEMP Appendix D
2	**Specific environmental controls**	
	Traffic, transport and access arrangements	
2.1	The Proponent shall provide appropriate car parking and shall manage construction traffic and construction personnel to discourage and minimise construction vehicles from parking or queuing on public roads.	Traffic management plan Management action plans AP-02 to AP-07 (Appendix G to L)
2.2	Road dilapidation reports shall be prepared prior to commencement of construction for all local roads likely to be used by construction traffic. A copy of the relevant report shall be provided to the relevant Councils. Any damage resulting from the construction of the project, aside from that resulting from normal wear and tear, shall be repaired at the cost of the Proponent.	Road Dilapidation Report/s
2.3	The Proponent shall develop individual Parking Strategies, in consultation with City of Canada Bay Council and Leichhardt Municipal Council to minimise and manage the loss of car parking as a result of the construction and operation of the project. The Parking Strategies shall be developed prior to the commencement of construction and operation in the area where parking is to be affected, and shall include, but not necessarily be limited to: a) a goal of minimising the impact of parking losses to businesses, recreational users and the wider community; b) identification of measures to minimise and manage impacts on economic and social amenity that changes in car parking arrangements may have; c) a quantification of parking impacts; d) assessment of user requirements including loading zones; and e) details of the implementation of compensatory car parking to mitigate the loss of parking during construction and operation. A copy of the individual Parking Strategies shall be provided to the Director-General prior to their implementation.	Parking Strategies
2.4	The Proponent shall maintain safe pedestrian and cyclist access through or around the worksite during construction. In circumstances where pedestrian and cyclist access is restricted due to construction activities, the	Traffic management plan Management action plans AP-02 to

Number	Condition	Reference
	Proponent shall ensure that a satisfactory alternate route is provided and signposted.	AP-07 (Appendix G to L)
2.5	The Proponent shall apply relevant design standards, including the *NSW Bicycle Guidelines and Guide to Traffic Engineering Practice, Part 14 – Bicycles,* (Austroads, 1999) in the design and implementation of all new temporary and permanent cyclist facilities.	Design drawings and construction plans
	Marine and safety access	
2.6	Any reduction in horizontal clearances as a result of the new bridge as described in the documents referred to under condition 1.1 of this approval, compared to existing clearances shall be minimised. This includes minimising any potential impact of piers on the Iron Cove rowing and sailing courses and general navigation.	Design drawings and construction plans
2.7	The Proponent shall ensure that the operation of the new bridge component of the project does not prevent the operation of a rowing course beneath it with eight rowing lanes (each 13.5 meters in width) and with a minimum total width of 135 meters (ie 13.5 meters + (8 x 13.5 meters) + 13.5 meters).	Design drawings
2.8	Navigation lights and signage shall be erected on the bridge (typically on the pylons) showing the clearances under each span, if required by and in consultation with NSW Maritime.	Design drawings
2.9	The Proponent shall identify and implement measures, in consultation with NSW Maritime, to ensure on-going maritime safety and navigational requirements in Iron Cove for the duration of water-based construction works associated with the project.	Maritime safety plan
2.10	In undertaking water-based construction works associated with the project, the Proponent shall consult with NSW Maritime to identify licensed, scheduled events and consult with event organisers to identify and address, where reasonable and feasible, potential conflicts between construction works and the use of the waterway for licensed, scheduled events.	Maritime safety plan
	Noise and vibration impacts – construction noise and vibration	
2.11	The Proponent is permitted to undertake construction works associated with the project at any time (24 hours per day). All construction activities to be undertaken before 07:00 or after 18:00 on any day, or on a weekend or public holiday at any time, shall be subject to detailed noise mitigation, monitoring and management measures specified in an approved Construction Noise Management Plan (refer to condition 6.4b)).	Construction noise and vibration management plan Management action plans AP-02 to AP-07 (Appendix G to L)
2.12	In scheduling construction works, the Proponent shall aim to: a) minimise disruptions to traffic along Victoria Road; b) achieve a construction noise goal for the project (ie not exceeding the background noise level by more	Traffic management plan Construction noise and vibration management plan

Number	Condition	Reference
	than 5 dB(A)); c) undertake the most noise intensive, tonal or impulsive construction activities during week days (07:00 to 18:00), and on Saturdays (8:00 to 13:00); and d) provide periods of respite for affected residential receivers.	Management action plans AP-02 to AP-07 (Appendix G to L)
2.13	The Proponent shall conduct vibration testing and monitoring to identify minimum working distances to residential dwellings with the objective of meeting the preferred values for vibration (for low probability of adverse comment) presented in *Assessing Vibration:* A *Technical Guideline* (DECC, February 2006). In the event that the vibration testing and monitoring shows that the preferred values for vibration at any affected residential dwelling are likely to be exceeded the Proponent shall review the construction methodology and, if necessary, implement additional mitigation measures.	Construction noise and vibration management plan Management action plans AP-02 to AP-07 (Appendix G to L)
	Operational noise	
2.14	Prior to commencement of construction of the project, the Proponent shall undertake noise monitoring to identify residential premises in the following areas that, at the time of monitoring, experience road traffic noise in excess of 65 dB(A) (as L Aeq(15-hour)) during the day (07:00 to 22:00) or 60 dB(A) (as LAeq(9-hour)) during the night (22:00 to 07:00): a) between Clubb Street and Byrnes Street, fronting Victoria Road; b) between Victoria Road and Manning Street, fronting Byrnes Road; and c) the area bounded by Victoria Road, Park Avenue, Formosa Street and Henley Marine Drive. For the purpose of this condition, noise shall be monitored in accordance with *Environmental Criteria for Road Traffic Noise* (EPA, 1999).	Construction noise and vibration management plan
2.15	The Proponent shall write to each landowner referred to under condition 2.14 whose property is identified by the Proponent as experiencing traffic noise above either of the levels specified under that condition, and shall offer to provide and fund reasonable and feasible acoustic treatments to reduce the impact of traffic noise at the residential premises on that property. The Proponent's offer shall remain open for acceptance by the affected landowner for 12 months from the date of the notification required under this condition. Acoustic treatments agreed between the parties shall be implemented as soon as practicable after reaching such an agreement. Should the parties not be able to reach agreement on the scope and timing of acoustic treatments, then either party may refer the matter to the Director-General for resolution. The Director-General's decision on such a referral shall be final and binding on the parties.	Construction noise and vibration management plan

Number	Condition	Reference
	Heritage impacts	
2.16	The Proponent shall ensure that the physical fabric of Iron Cove Bridge, including its piers, abutments and approaches, is not permanently impacted in constructing the project, except at the point of merger of the two bridges where permanent impact is unavoidable, where safety enhancements are deemed necessary or as described in the documents referred to under condition 1.1.	Heritage management plan Management action plans AP-03 and AP-05 (Appendix H and J)
2.17	All endeavours shall be made by the Proponent to prevent avoidable impacts on the 1882 sandstone abutments, particularly the sandstone masonry, during the carrying out of construction works. If construction equipment is located on the abutments, the heritage fabric should be protected.	Heritage management plan Management action plans AP-03 and AP-05 (Appendix H and J)
2.18	Safe public access to the 1882 sandstone abutments shall be reinstated once the project is complete, allowing the continuance of their current use as a look-out, unless otherwise agreed by the Director-General for public safety or security reasons.	Heritage management plan
2.19	Sandstone blocks from the sea walls in vicinity of the Iron Cove Bridge, when dismantled, shall be safely stored for reinstatement before completion of construction works. New blocks and their jointing/coursing shall match the original.	Heritage management plan Management action plans AP-03 and AP-05 (Appendix H and J)
2.20	Where reasonable and feasible, potential archaeological heritage within the study area shall be retained and preserved *in situ.*	Heritage management plan Management action plans AP-02 to AP-07 (Appendix G to L)
2.21	Intrusive development works (localised excavations) shall, if reasonable and feasible, *avoid* areas of potential archaeological remains, especially those associated with historically significant occupation such as the Inn, Post Office, Bank, School, and c1880 Bridge Hotel.	Heritage management plan Management action plans AP-02 to AP-07 (Appendix G to L)
2.22	Should construction works unearth items of historical archaeological potential, works in that vicinity shall only continue in accordance with the archaeological management strategy included as part of the Heritage Management Plan. In addition, the Department of Planning (Heritage Branch) shall be contacted for further *advice* on required actions or approvals.	Heritage management plan Management action plans AP-02 to AP-07 (Appendix G to L)
2.23	If any new Aboriginal sites are identified during the construction of the project, they shall be registered with DECC in accordance with s91 of the *National Parks and Wildlife Act* 1974. Impact to these sites should be *avoided,* If this is not reasonable and feasible, mitigation for impact shall occur in consultation with DECC.	Heritage management plan Management action plans AP-02 to AP-07 (Appendix G to L)
	Visual amenity and urban design	

Number	Condition	Reference
2.24	The Proponent shall design and construct the project in a manner that minimises the visual and heritage setting impact of infrastructure and hard landscaping elements, including overhead structures, fencing, signage, new bus shelters and the like.	Urban design and landscaping plan
	Ancillary facilities	
2.25	Prior to establishing each of the construction site compounds identified in the documents listed under condition 1.1 of this approval, the Proponent shall develop and submit for the approval of the Director-General an Compound Environmental Management Plan for the relevant compound site. The Plan shall address the matters required for a Construction Environmental Management Plan under condition 6.3. Once approved, the Plan shall be implemented for the duration of the construction site compound.	CEMP Construction Noise and Vibration Management Plan Heritage management plan Management action plans AP-02 to AP-07 (Appendix G to L)
2.26	Prior to the establishment of any construction site compound not otherwise identified in the documents referred to under condition 1.1 of this approval, the Proponent shall obtain the Director-General's approval for the establishment and management of the construction site compound(s). In obtaining this approval, the Proponent shall submit an assessment of the compound(s) which provides: a) a description of the compound, its components and the surrounding environment; b) details of the activities to be carried out at each compound, including the hours of use and the storage of dangerous and hazardous goods; c) an assessment of the environmental impacts on the site and the surrounding environment, including noise impacts from construction vehicles; d) details of the mitigation, monitoring and management procedures specific to the compound(s) that would be implemented to minimise environmental impacts; and e) identification of the timing for the completion of activities at compound(s) and how sites will be decommissioned (including any necessary rehabilitation).	Noted
	Property impacts	
2.27	The Proponent shall construct the project in a manner that minimises impacts to properties along the project corridor. In the *event* that construction of the project results in direct or indirect damage to any such property, the Proponent shall arrange and fund repair of the damage to a standard comparable to that in existence prior to the damage.	Dilapidation report
2.28	Prior to the commencement of construction of the project, or each part of the project that may impact on	Dilapidation report

Number	Condition	Reference
	surrounding properties (including heritage items), the Proponent shall: a) arrange for a risk assessment by appropriately qualified and experienced geotechnical and construction engineering experts, at risk from damage, and undertake inspections of these properties prior to construction in accordance with AS 4349.1 'Inspection of Buildings'; b) contact the owners of all properties on which property inspections are to be conducted at least two weeks before the inspection, or as otherwise agreed by the affected property owner, and advise of the scope and methodology for the inspection, and of the process for making a property damage claim; c) provide a copy of the property inspection report to the owner of each property inspected at least one week prior to construction that could affect the property; and d) maintain a register of all properties inspected by the Proponent, indicating whether the owner accepted or refused the property inspection offer, and provide a copy of the register to the Director-General upon request.	
2.29	The Proponent shall ensure that access to all properties is maintained during construction and operation unless agreed with the property owner in advance and that any access physically affected by the Project is reinstated to at least an equivalent standard.	Traffic management plan Management action plans AP-02 to AP-07 (Appendix G to L)
2.30	The Proponent shall consult with Leichhardt Municipal Council regarding the use of, and minimising impacts to, King George Park during construction, including the relocation of the children's playground, impacts to pedestrian and cyclist access and retention of vegetation.	Community communications strategy
2.31	The Proponent shall negotiate with the owner and lessee to make appropriate arrangements for the conduct of the following modifications to The Cove at Drummoyne café, subject to planning approval for the works being secured under the Environmental Planning Assessment Act 1979: a) construction of a new covered deck on the southern (rear) side of the building and attached to the existing deck; b) enclosure of exterior areas with doors and windows; and c) installation of air-conditioning to newly enclosed areas. The Proponent shall bear the reasonable expenses associated with obtaining development consent for the above works. The Proponent shall negotiate with the owner and lessee to reach agreement on the appropriate timeframe for which development consent must be secured. In the event that development consent is not secured for the works within the agreed timeframe the Proponent's obligations to fund the above works shall expire.	To be negotiated

Number	Condition	Reference
	Water quality impacts	
2.32	The Proponent shall comply with section 120 of the *Protection of the Environment Operations Act 1997* which prohibits the pollution of waters.	Soil and water management plan Management action plans AP-02 to AP-07 (Appendix G to L)
2.33	The Proponent shall manage all actual and potential acid sulfate soils that may be disturbed during construction of the project in accordance with *Acid Sulfate Soil Manual* (Acid Sulfate Soil Management Advisory Committee, 1998).	Soil and water management plan Management action plans AP-02 to AP-07 (Appendix G to L)
2.34	Where available and of appropriate chemical and biological quality for its proposed purpose, the Proponent shall use stormwater, recycled water or other water sources in preference to potable water for construction, including concrete mixing and dust control.	Management action plans AP-02 to AP-07 (Appendix G to L)
2.35	The Proponent shall install and maintain for the duration of construction works associated with the project, erosion and sedimentation control measures consistent with *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004).	Soil and water management plan Management action plans AP-02 to AP-07 (Appendix G to L)
2.36	The Proponent shall undertake all water-based construction activities in a manner that minimises the potential for the re-suspension and dispersal of sediments and associated biota.	Soil and water management plan Management action plans AP-03 and AP-05 (Appendix H and J)
2.37	Prior to the commencement of water-based construction activities that have the potential to disturb sediments, the Proponent shall install a sediment boom and silt curtain around the relevant works. Where sediment booms and silt curtains have been installed, they shall remain in place until the turbidity of the water within the sediment booms and silt curtains returns to background levels of turbidity in waters immediately outside the booms and curtains.	Soil and water management plan Management action plans AP-03 and AP-05 (Appendix H and J)
	Management of waste and contaminated soils	
2.38	The Proponent shall not reuse as part of the project any excavated soils or sediments that contain contaminants above the adopted criteria specified in Table 6-2 and Table 6-3 of the document referred to under condition 1.1b), unless the subject of a Site Audit Statement prepared by an accredited Site Auditor under the *Contaminated Land Management Act 1997* that specifies the material is suitable for the intended final land use.	Material handling and temporary use plan Management action plans AP-02 to AP-07 (Appendix G to L)
2.39	All waste and fill materials, whether imported or generated on site, shall be assessed, classified, managed and disposed of in accordance with the *Waste Classification Guidelines* (DECC, 2008).	Waste Management Strategy Management action plans AP-02 to

Number	Condition	Reference
		AP-07 (Appendix G to L)
	Air quality impacts	
2.40	The Proponent shall construct the project in a manner that minimises dust impacts generated by construction works, including wind-blown and traffic-generated dust.	Management action plans AP-02 to AP-07 (Appendix G to L)
	Ecological impacts	
2.41	The Proponent shall seek the advice of a qualified arborist regarding actual and potential impacts on the Moreton Bay fig tree at the Drummoyne Swim Centre during construction activities at that location. The arborist shall be retained to periodically inspect and advise on the health of the tree for 12 months after the conclusion of construction.	Management action plans AP-03 and AP-05 (Appendix H and J)
3	**Environmental monitoring and auditing**	
	Operational noise monitoring	
3.1	Within twelve months of the completion of construction of the project, and then again at five years, or as otherwise agreed or required by the Director-General, the Proponent shall commission an independent, qualified person or team to undertake an Operational Performance Audit of the project. The independent person or team shall be approved by the Director-General prior to the commencement of the Audit. An Operational Performance Audit Report shall be submitted to the Director-General within one month of the completion of the Audit, unless otherwise agreed by the Director-General. The Audit shall: a) assess compliance with the requirements of this approval, and other licences and approvals that apply to the project; b) assess the operational performance of the project against the aims and objectives for the project specified in the documents referred to under condition 1.1 of this approval c) assess the environmental performance of the project against the predictions made and conclusions drawn in the documents referred to under condition 1.1 of this approval; and d) review the effectiveness of the environmental management of the project, including any environmental impact mitigation works.	Operation environmental management plan
4	**Compliance monitoring and tracking**	
	Compliance tracking program	

Number	Condition	Reference
4.1	The Proponent shall develop and implement a Compliance Tracking Program to track compliance with the requirements of this approval. A copy of the Program shall be submitted to the Director-General prior to the commencement of construction. The Program shall include: a) provisions for periodic review of the compliance status of the project against the requirements of this approval, including at the commencement of construction and operation of the project, and at least at six monthly intervals; b) provisions for the notification of the Director-General prior to the commencement of construction and prior to the commencement of operation of the project; c) provisions for periodic reporting of compliance status to the Director-General during construction; d) a program for independent environmental auditing in accordance with ISO 19011:2003 - Guidelines for Quality and/ or Environmental Management Systems Auditing; e) mechanisms for recording incidents during construction and actions taken in response to those incidents; f) provisions for reporting environmental incidents to the Director-General during construction; and g) mechanisms for rectifying any non-compliance identified during environmental auditing or review of compliance.	Compliance tracking program CEMP section 2.4, 6.3, 7.3.2 and 8
5	**Community information, consultation and involvement**	
	Community communication	
5.1	The Proponent shall prepare and implement a **Community Communication Strategy** to provide mechanisms to facilitate communication between the Proponent (and its contractors), the Environmental Representative and the community stakeholders (particularly adjoining landowners) on construction progress and management. The Strategy shall include, but not be limited to: a) identification of stakeholders to be targeted as part of the Strategy; b) procedures and mechanisms for the regular dissemination of information to the community stakeholders, Iron Cove users and road users on construction progress and matters associated with environmental management; c) procedures and mechanisms through which the community stakeholders can discuss or provide feedback to the Proponent and/or Environmental Representative in relation to the environmental management and delivery of the project;	Community Communications Strategy

Number	Condition	Reference
	d) procedures and mechanisms through which the Proponent can respond to any enquires or feedback from the community stakeholders in relation to the environmental management and delivery of the project; e) procedures and mechanisms to be implemented to respond to any issues/disputes that arise between parties on the matters relating to environmental management and the project delivery. Issues that shall be addressed with the community include (but are not necessarily be limited to): traffic management (including access, construction vehicle management and parking); landscaping/urban design matters; air quality; and noise and vibration mitigation and management. The Proponent shall maintain and implement the Strategy throughout construction. The Strategy shall be submitted to the Director-General prior to the commencement of construction of the project.	
	Complaints and enquiries	
5.2	Prior to the commencement of construction of the project, the Proponent shall ensure that the following are available for community enquiries and complaints for the duration of construction: a) a 24 hour telephone number on which complaints and enquiries about the project may be registered; b) a postal address to which written complaints and enquires may be sent; and c) an email address to which electronic complaints and enquiries may be transmitted. The telephone number, the postal address and the email address shall be published in a newspaper circulating in the local area prior to the commencement of construction. This information shall also be provided on the Proponent's website.	CEMP Section 5.1.2 Community Communications Strategy
	Provision of electronic information	
5.3	Prior to the commencement of construction, the Proponent shall dedicate pages within its project website, for the provision of electronic information associated with the project, for the duration of construction and for up to 12 months following completion of the project. The Proponent shall publish and maintain up-to-date information on these dedicated pages, including: a) a copy of the documents referred to under condition 1.1 of this approval, and any documentation supporting modifications to this approval that may be granted; b) a copy of this approval and each relevant environmental approval, licence or permit required and obtained in relation to the project; c) subject to confidentiality requirements, a copy of each strategy, plan and program required under this approval; and	Community Communications Strategy

Number	Condition	Reference
	d) the outcomes of compliance tracking in accordance with condition 4.1 of this approval.	
6	**Environmental management**	
	Environmental representative	
6.1	Prior to the commencement of construction of the project, or as otherwise agreed by the Director-General, the Proponent shall nominate for the approval of the Director-General, a suitably qualified and experienced Environmental Representative(s) independent of the project design and construction personnel. The Proponent shall employ the Environmental Representative(s) for the duration of construction, or as otherwise agreed by the Director-General. The Environmental Representative(s) shall: a) be the principal point of advice in relation to all questions and complaints concerning the environmental performance of the project; b) endorse the preparation of and monitor the implementation of all environmental management plans and monitoring programs required by the conditions of this approval; c) monitor the outcome of all environmental management plans and advise the Proponent upon the achievement of all project environmental outcomes; d) ensure that environmental auditing is undertaken in accordance with all relevant project Environmental Management Systems; e) have responsibility for considering and advising the Proponent on matters specified in the conditions of this approval, and all other licences and approvals related to the environmental performance and impacts of the project; and f) be given the authority and independence to require reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions be ceased immediately should an adverse impact on the environment be likely to occur.	CEMP section 3.2.2
	Urban design and landscaping plan	
6.2	The Proponent shall prepare and implement an Urban Design and Landscape Plan for the operation of the project. The Plan shall be prepared in consultation with relevant Council(s) and shall present an integrated urban design for the project. The Plan shall include, but not necessarily be limited to: a) a principal goal of achieving the five urban design objectives outlined in section 6.4.3 of the document referred to under condition 1.1b);	Urban design and landscaping plan

Number	Condition	Reference
	b) strategies to progressively landscape the project; c) location and identification of existing and proposed vegetation including use of indigenous and endemic species where possible, and including relocation plans for the Washington palm trees; d) restoration of sites and rehabilitation measures, including the removal of the material used for reclamation post construction phase; e) consideration of the measures outlined in the Heritage Management Plan, including heritage interpretation, and the identification of opportunities for the reuse of disturbed fabric, such as sandstone kerbing; f) design treatments for built elements including retaining walls, bridges and noise barriers; g) design treatments for pedestrian and cyclist elements including footpath location, paving types and pedestrian crossings; h) design treatments for fixtures such as seating, lighting, fencing and signs; i) graphics for key elements such as sections, sketches, perspective views, etc; j) standards, procedures and methods to monitor and maintain landscaped or rehabilitated areas; and k) remedial measures to maintain landscaping works to the design standard established in the Plan, where necessary. The Plan shall be submitted for the approval of the Director-General within six months of the commencement of construction of the project, and may be staged to suit the program for construction of the project.	
	Construction environmental management plan	
6.3	Prior to the commencement of construction of the project, or each relevant part of the project, the Proponent shall prepare and implement a Construction Environmental Management Plan to outline environmental management practices and procedures to be followed during construction of the project, or relevant part of the project. The Plan shall be prepared in accordance with the *Guideline for the Preparation of Environmental Management Plans* (DIPNR, 2004) and include: a) a description of all activities to be undertaken during construction of the project including an indication of stages of construction where relevant; b) all mitigation measures and controls identified in the documents referred to under condition 1.1; c) statutory and other obligations that the Proponent is required to fulfil during construction including all approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies;	CEMP Management action plans AP-02 to AP-07 (Appendix G to L)

Number	Condition	Reference
	d) details of how the environmental performance of the construction works will be monitored, and what actions will be taken to address identified adverse environmental impacts; e) a description of the roles and responsibilities for all relevant employees involved in the construction of the project, and a personnel induction and training program to address the management of expected environmental impacts; and f) complaints handling procedures. The Plan shall be submitted for the approval of the Director-General prior to the commencement of construction, or within such period otherwise agreed by the Director-General. Construction works, or the relevant phase of construction works, shall not commence until written approval has been received from the Director-General.	
6.4	In addition to, or as part of, the Construction Environmental Management Plan(s) for the project required under condition 6.3 of this approval, the Proponent shall prepare and implement the following issue-specific Management Plans: a) prior to the commencement of works, or each stage of works, with the potential to impact on items of heritage significance, a **Heritage Management Plan** to detail how construction impacts on non-Aboriginal and Aboriginal heritage will be minimised and managed. The Plan shall be prepared in accordance with Heritage Council of NSW Guidelines as relevant, and include but not necessarily be limited to: I. location and identification of all known heritage items; II. work method statements for working in the vicinity of identified heritage items to ensure minimal construction impact and to outlines practical methods that reduce, minimise and avoid impacts to heritage items. III. an Archaeological Management Strategy prepared by a qualified archaeologist consistent with Chapter 7 of the Archaeological Assessment Report, prepared by Archaeological and Heritage Management Solutions, dated September 2008, including: – archaeological monitoring for sensitive areas of potential archaeology that will be potentially impacted; – an on call archaeologist for areas that do not require monitoring; – recording; and – the archaeological information generated as the result of the monitoring program shall be collated and form the basis for undertaking a final archaeological report for the	Heritage management plan Construction noise and vibration management plan Traffic management plan

Number	Condition	Reference
	project, to be submitted to the Director-General if requested. IV. a Heritage Interpretation Strategy, providing appropriate public interpretation and specifying works at identified points. The Heritage Interpretation Strategy shall include actions to facilitate archival recording of impacted heritage items, including the existing Iron Cove Bridge, the abutments of the original (1882) bridge and sandstone kerbing; V. a site worker induction program, including training about natural and cultural heritage values and items, likely areas of archaeological potential within the project area and the types of archaeological relics that might be discovered during construction works; and VI. procedures to be implemented if previously unidentified Aboriginal objects and / or Non-Indigenous heritage items are discovered during construction. b) prior to the commencement of works, or each stage of works, with the potential to generate a noise or vibration impact at the nearest receiver, a Construction Noise and Vibration Management Plan to detail how construction noise and vibration impacts would be minimised and managed. The Plan shall include, but not necessarily be limited to: I. details of construction activities and a schedule for construction works; II. identification of construction activities that have the potential to generate noise and/or vibration impacts on surrounding sensitive receivers, particularly residential areas and identified heritage items and an assessment of these; III. a detailed description of what actions and measures would be implemented to manage noise and vibration; IV. procedures for notifying residents of construction activities that are likely to affect their noise and vibration amenity, as well as procedures for dealing with and responding to noise complaints; V. a description of how the effectiveness of these actions and measures would be monitored during the proposed works, clearly indicating how often this monitoring would be conducted, how the results of this monitoring would be recorded, and if any non-compliance is detected. c) prior to the generation of construction traffic or works, or each stage of works, with the potential to affect traffic flows, a Traffic Management Plan to ensure traffic and access controls are implemented to avoid or minimise impacts on traffic and the amenity of the surrounding environment. The Plan shall include, but not necessarily be limited to: I. impacts on existing traffic in the Victoria Road corridor (including associated local roads) and the timing of the impacts (including on pedestrians, public transport, vehicles, parking and cyclists);	

Number	Condition	Reference
	II. details of construction vehicle movements and parking for each stage of works, including access arrangements for construction sites and site compounds, and ingress and egress routes; III. details of traffic control measures, and changes to traffic configurations, arrangements and facilities; IV. the retention of and/or provision of alternate vehicular access; V. impacts on bus stops and the provision of safe and convenient access to all bus stops; VI. identification of impacts to pedestrian and cycle access areas, including measures to ensure safe pedestrian and cycle routes and access at all times, and the provision of alternative facilities and locations for pedestrians and cyclists; VII. a response plan which sets out the proposed response to any traffic, construction or other incident; and VIII. appropriate monitoring, review and amendment mechanisms.	
6.5	To avoid any doubt, and subject to compliance with the requirements of condition 1.4 this approval, the Proponent may submit the documents required under conditions 6.3 and 6.4 in a staged, phased or separate manner to reflect the staging of construction and/ or operation of the project, or to reflect discrete packages of works.	Noted

Victoria Road upgrade statement of commitments (SoC)

Environmental outcome	Ref #	Commitment	Timing	Reference
General — environmental management				
Compliance and continuous improvement in environmental management	M1	The head contractor for the project will have an environmental management system.	Pre-construction and construction	Baulderstone Pty Ltd EMS
	M2	Suitably qualified and experienced personnel will develop and implement project specific environmental management plans and procedures. The environmental management plans and procedures will incorporate mitigation and management measures identified in the environmental assessment.	Pre-construction and construction	CEMP
Community consultation				
Informed community	CC1	The community will be provided with regular project updates, given prior notice of project activities and provided contact details for enquiries. Where required, affected individuals or groups will be consulted directly and provided with targeted notifications (eg waterway users, bicycle user groups, noise affected residents etc.)	Pre-construction and construction	Community communications strategy CEMP Section 5 Management action plans AP-02 to AP-07 (Appendix G to L)
	CC2	The community will be able to make complaints using the project's 24 hour toll free complaints number or the project web page. The number will be publicised and the project specific web page will include directions on how to register a complaint All complaints will be acknowledged within eight working hours, recorded and tracked until resolved.	Pre-construction and construction	CEMP Section 5 Community communications strategy
Transport				
Impacts on traffic minimised	T1	Construction vehicle movements, work programs and traffic control measures will be planned to avoid or minimise impacts on traffic through the implementation of all feasible and reasonable design, and mitigation and management measures.	Pre-construction and construction	Traffic management plan Management action plans AP-02 to AP-07 (Appendix G to L)
	T2	Existing legal property access, and pedestrian and cycle access	Pre-construction and	Traffic management plan

Environmental outcome	Ref #	Commitment	Timing	Reference
		(including the Bay Run) will be maintained or alternative arrangements made following consultation with the affected community.	construction	Management action plans AP-02 to AP-07 (Appendix G to L)
Impacts on waterway users minimised	T3	The new bridge piers will be configured to match the existing Iron Cove Bridge piers and the centre two spans will be no lower in height than the existing bridge to ensure navigational clearance is maintained.	Construction	Design drawings
	T4	Consultation with Iron Cove waterway users (rowing and sailing clubs, other recreational and commercial users) will be undertaken to develop strategies to minimise impacts from the project during construction.	Pre-construction and construction	Community communications strategy Management action plan AP-05 (Appendix J)
Improved regional pedestrian and cyclist networks	T5	A regional cycleway will be developed in consultation with relevant stakeholders and assessed under a separate environmental assessment process.	Pre-construction and construction	Pedestrian and Cyclist Review of Environmental Factors
Improved bus reliability and efficiency	T6	The operation of Victoria Road will be monitored following completion of the project and travel times compared to those predicted outcomes to identify the need for any further operational refinement to optimise the performance of the project.	Operation	Operation environmental management plan Operational Performance Audit Report
Contamination				
Protection of the environment, workers and public	C1	All feasible and reasonable mitigation and management measures will be implemented to contain displaced contaminated sediment, and their effectiveness monitored.	Construction	Soil and water management plan Management action plans AP-02 to AP-07 (Appendix G to L)
	C2	Contaminated sediment, ASS and other wastes will be managed to prevent release of material and if required will be disposed of at an appropriately licensed facility. Where appropriate, contaminated fill material from foreshore areas, suitable for reuse, will be placed at depth and capped, and the location recorded for ongoing management.	Construction	Soil and water management plan Material handling and temporary use plan Management action plans AP-02 to AP-07 (Appendix G to L)

Environmental outcome	Ref #	Commitment	Timing	Reference
Noise and vibration				
Minimised construction noise and vibration impacts	N1	All feasible and reasonable mitigation and management measures to minimise construction noise at sensitive receivers will be investigated. Noise and vibration will be monitored to measure against predicted levels. Where required feasible and reasonable mitigation measures will be implemented. These might include: • Temporary attenuation (eg barriers). • Respite periods. • Modifying work activities. • Negotiating temporary arrangements with affected property owners.	Pre-construction and construction	Noise and vibration management plan
Operational noise and vibration managed	N2	Noise affected residents, being those already experiencing noise levels of 65 dBA (day-time) and 60 dBA (night-time) identified during pre-construction monitoring and are: • Between Clubb Street and Byrnes Street fronting Victoria Road. • Between Victoria Road and Manning Street fronting Byrnes Street. • Bordering Victoria Road, Park Avenue, Formosa Street and Henley Marine Drive. will be considered for reasonable and feasible mitigation in consultation with affected property owners.	Pre-construction and construction	Noise and vibration management plan
	N3	Operational noise will be monitored within one year after construction is finalised. If monitoring indicates a clear trend that traffic noise levels exceed those predicted, all further feasible and reasonable measures will be investigated. Any additional mitigation measures will be developed in consultation with a suitably qualified and experienced acoustic specialist and the affected property owner.	Operation	Operation environmental management plan Operational performance audit report

Environmental outcome	Ref #	Commitment	Timing	Reference
Visual amenity and urban design				
Maintained or enhanced urban character	V1	The detailed design and implementation of built elements (such as new bridge and roadside furniture) and landscapes, and the mitigation of residual impacts will be undertaken in accordance with the visual and urban design objectives and principles for the project, and as outlined in the urban and landscape design concept They will: • Fit sensitively with the existing built, natural and community context. • Contribute to the local ecology, community functions and quality of the public domain for the community and road users.	Pre-construction construction	Urban design and landscaping plan
Visual impacts are mitigated over the long-term and ongoing maintenance of urban design elements and landscaping is minimised	V2	Built elements will use robust, long-lasting, replaceable and easy to maintain materials and designs. Landscaping will predominantly use native species of local provenance that will be self sustaining.	Pre-construction construction	Urban design and landscaping plan
Impacts on open space minimised	V3	The relocation of the Washington Palm Trees, and relocation and improvements to the playground in King George Park will be undertaken in consultation with Leichhardt Municipal Council, the community and other relevant stakeholders.	Pre-construction and construction	Management action plan AP-04 (Appendix J)
Social and economic				
Impacts on parking minimised	S1	Opportunities to modify existing parking arrangements (reconfiguration or conversion of other areas) will be investigated to minimise the loss of parking during construction and operation of the project.	Pre-construction and construction	Individual parking strategies
Minimised impacts on residents during construction	S2	Occupation and use of compounds and work sites will minimise disturbance to adjacent residents by managing, and minimising where possible: the movement of vehicles,	Construction	Management action plans AP-02 to AP-07 (Appendix G to L)

Environmental outcome	Ref #	Commitment	Timing	Reference
		particularly outside of standard working hours; providing temporary noise attenuation (eg shielding); and providing screening to minimise visual intrusion.		
Impacts on operation of The Cove at Drummoyne Café minimised	S3	Subject to the terms outlined in Section 2.11.1, funding will be provided to modify the configuration of café building in the manner generally described below, to minimise the affect of amenity impacts on the operation of the café, The proposed modifications to the building would generally include: Construction of a new covered deck on the southern (rear) side of the building and attached to the existing deck. Enclosure of exterior areas with doors and windows. Installation of air-conditioning to newly enclosed areas.	Pre-construction and construction	To be negotiated
Non-Aboriginal heritage				
Impacts on non-Aboriginal heritage items minimised	H1	Site environmental management plans will show the locations of non-Aboriginal heritage items and areas containing items of potential archaeological significance to be protected during construction and workers made aware of obligations related to these items. Feasible and reasonable mitigation will be implemented to avoid or minimise impacts on heritage items, including vibration testing to develop safe working distances to heritage items for various construction activities.	Pre-construction and Construction	Heritage Management Plan Management action plans AP-02 to AP-07 (Appendix G to L) Project EWMSs
	H2	Where heritage items will be directly impacted (such as the original bridge abutments), they will be reinstated as close to pre-construction condition as possible.	Pre-construction and construction	Heritage Management Plan Management action plans AP-02 to AP-07 (Appendix G to L)
	H3	If any material of potential archaeological significance is unearthed, work will cease until specialist heritage advice has been obtained.	Pre-construction and construction	Heritage Management Plan Management action plans AP-02 to AP-07 (Appendix G to L)
Impacts on heritage mitigated	H4	An appropriate level of archival recording of significant heritage items (including the existing bridge and any uncovered items of archaeological significance) will be completed and a heritage	Pre-construction	Heritage Management Plan Management action plans AP-02 to AP-07 (Appendix G to L)

Environmental outcome	Ref #	Commitment	Timing	Reference
		interpretation strategy will be implemented as part of the final landscaping works.		
Air quality				
Impacts on air quality minimised	Q1	Feasible and reasonable mitigation and management measures will be adopted to minimise windblown, traffic-generated or equipment-generated dust and emissions.	Construction	Management action plans AP-02 to AP-07 (Appendix G to L)
	Q2	Dust generating activities will stop where visible dust is being emitted outside the construction corridor and when dust suppression methods are ineffective.	Construction	Management action plans AP-02 to AP-07 (Appendix G to L)
Geology and soils				
Erosion and sedimentation minimised	G1	Erosion and sedimentation management and control measures will be designed and installed with the advice of a soil conservation scientist. Controls will be inspected regularly, maintained and managed to maximise their ongoing effectiveness.	Pre-construction and construction	Soil and water management plan Management action plans AP-02 to AP-07 (Appendix G to L)
Water				
Water quality impacts minimised	W1	Bunded areas will be used for storage of oils, chemicals, toxic substances, flammable and combustible liquids, and for potentially hazardous and contaminating activities (eg washing construction vehicles, plant and equipment, handling and pouring hazardous materials and liquids etc).	Construction	Soil and water management plan Management action plans AP-02 to AP-07 (Appendix G to L)
	W2	Spills will be contained immediately and will be stored in a bunded area until disposal. Spills will be disposed of at a facility that is licensed to receive the waste, or may be discharged after appropriate treatment.		Soil and water management plan Management action plans AP-02 to AP-07 (Appendix G to L)
Biodiversity				
Clearing minimised and native vegetation protected and enhanced	B1	Vegetation will be retained where possible. Revegetation and landscape planting will be undertaken on the foreshore of Iron Cove to integrate new infrastructure and to maintain and enhance habitat availability/connectivity. Preference will be for	Construction	Urban design and landscaping plan Management action plans AP-02 to AP-07 (Appendix G to L)

Environmental outcome	Ref #	Commitment	Timing	Reference
		the use of locally indigenous species in plantings. Revegetation and landscaping activities will be undertaken progressively, where possible, and in consultation with the affected landowner.		
Aquatic biota and habitat rehabilitated	B2	Opportunities for rehabilitation and enhancement of the in-water areas directly affected by the project will be investigated during detailed design. NSW Maritime will be consulted to avoid impacts on waterway operation.	Construction	Management action plan AP-07 (Appendix L)
Maintenance of fig tree health	B3	A suitably qualified and experienced arborist will be engaged prior to and for the duration of the project to document, advise on and monitor the management of the fig tree.	Pre-construction, construction and post-construction	Management action plan AP-05 (Appendix J)
Aboriginal heritage				
Protect Aboriginal heritage	A1	Should any unknown Aboriginal objects or items be located during the works, all work will cease in the vicinity of the find until specialist Aboriginal heritage advice is received.	Construction	Heritage management plan Management action plans AP-02 to AP-07 (Appendix G to L)
Waste minimisation and management				
Waste production minimised	WM1	The 'waste hierarchy' (avoid/reuse/recycle/ resource recovery/disposal) will be maximised during construction; incorporated into work programs, purchase strategies and site inductions; and will be assessed quarterly to identify opportunities for improvement.	Pre-construction and construction	Waste Management Strategy Management action plans AP-02 to AP-07 (Appendix G to L)
Climate change and greenhouse gas emissions				
Greenhouse gas emissions and energy consumption minimised	E1	Energy efficient equipment and management measures will be used where feasible and reasonable to reduce greenhouse gas emissions will be adopted.	Pre-construction and construction.	Management action plans AP-02 to AP-07 (Appendix G to L)

Utility relocations and adjustments conditions of approval

Number	Condition	Reference
1	**Environmental safeguard measures**	
1.1	All Conditions of Approval within this Decision Report and safeguard measures and commitments from the REF, and any additional mitigation measures required to meet appropriate environmental legislation are to be incorporated within the Victoria Road upgrade project Contractor Environmental Management Plan.	Management action plan AP-01 (appendix F)
1.2	The proposed utility work will be done in accordance with the CEMP developed for the Victoria Road upgrade project.	CEMP and management action plan AP-01 (appendix F)
1.3	The Conditions of Approval in the Decision Report prevail where there is inconsistency with any other safeguard measure.	Noted
2	**Detail design issues**	
2.1	Any proposal to substantially modify the Proposal, works and boundaries applicable to the project as described in the REF would require additional environmental impact assessment.	Section 2.7
2.2	Any additional site compounds not described In the REF would require environmental impact assessment.	Section 2.7
3	**Environmental auditing and inspection**	
3.1	Any works resulting from this approval and as covered by the REF may be subject to an environmental audit(s) and/or inspection(s) at any time during their duration.	Section 7.4