WESTCONNEX ATN ST2 PLANNING CONDITION B51

Pedestrian & Cycle Implementation Strategy

Roads & Maritime

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Revision	Status	Date	By	Checked
1	Intial Draft	19.05.17	LP	DK
2	Draft For Comment	31.05.17	LP	DK
3	Revised Draft For Comment	07.06.17	LP	DK
4	Revised Draft For Comment	20.06.17	LP	DK
5	For Submission	30.06.17	LP	DK
6	Revised For Submission	14.07.17	LP	DK
7	Revised For Submission	21.07.17	LP	
8	Revised For Submission	11.09.17	LP	
9	Revised For Submission	15.09.17	LP	DK
10	Revised For Submission	20.09.17	LP	DK
11	Revised DPE Comments	26.02.18	LP	DK
12	Revised DPE Comments	05.06.18	LP	DK
13	Revised DPE Comments (changes around SPI)	22.11.18	LP	DK
14	Redactions For Public Exhibition	19.02.19	LP	DK

Contents

Bourke Street Cycle Way - Sydney, NSW

1.0 Introduction

1.1 BACKGROUND

WestConnex Project

The New M5 tunnel, Stage 2 of WestConnex, is being delivered by Sydney Motorway Corporation (SMC) on behalf of the NSW Government.

The New M5 will run via twin tunnels from the existing M5 East at Kingsgrove to a new interchange at St Peters, more than doubling capacity of the corridor and substantially improving east west corridor access between the Sydney CBD, Port Botany and Sydney Airport precincts and the South West growth areas.

The New M5 will deliver approximately nine kilometres of new tunnels, motorway to motorway connections to the King Georges Road Interchange Upgrade at Beverly Hills and a new interchange at St Peters. This is shown in Figure 1.1.

What is active transport?

Active transport is non-motorised forms of transport which include physical activity, for example walking or cycling. An Active Transport Network (ATN) provides infrastructure to enable convenient, pleasant and safe walking and cycling trips.

WestConnex and Active Transport

Inner Sydney and inner western Sydney has had significant increase in active transport and there has been significant growth over the last 10 years in trips undertaken by active transport. This growth has occurred due to a combination of the provision of infrastructure, changing inner Sydney demographics, and in-fill development in the region. A significant barrier to increased active transport is the lack of adequate infrastructure.

Cycle and pedestrian paths form part of the WestConnex project to improve connectivity and safety and contribute to the ATN. The New M5 includes a number of active transport measures including new and improved pedestrian / cycle paths which consists of the following:

- Cycling / pedestrian bridge over Alexandra Canal
- 1 km of separated cycleway connection linking Mascot town centre with St Peters, Sydney Park and Camdenville Park
- Connection to Princes Highway at Canal Road via the SPI
- New pedestrian / cycle shared paths within the M5 Linear Park associated with the King Georges Road Interchange Upgrade and the New M5 Western Interchange Works.

This B51 report details the implementation strategy for the delivery of projects identified in the related Condition B50 Pedestrian and Cycleway Network Review (PCNR). The Condition B50 PCNR has been submitted and approved by Department of Planning and Environment in June 2017.

This Condition B51 submission focuses on the review of the WestConnex New M5 project scope of work and the New M5 UDLP submission. RMS has reviewed the UDLP and identified improvements to cycling and pedestrian infrastructure and connections to existing ATN's. RMS has directed SMC to incorporate these improvements into the New M5 Project scope of works. Subsequent revisions of the UDLP document will include these improvements. Refer Section 5 for details of the improvements identified for incorporation into the works.

1.2 SUMMARY OF PLANNING CONDITION B50

The B50 planning condition required that the following be undertaken:

The Proponent must undertake a Pedestrian and Cycleway Network Review. The Review must be prepared and approved by the Secretary within six months from the date of this approval (or as otherwise agreed by the Secretary) to identify pedestrian and cycle facilities that are to be provided by the Proponent as part of the SPI. The Review must be prepared by a suitably qualified and experienced person(s) that has been approved by the Secretary. The Review must be undertaken in consultation with the relevant councils and Bicycle NSW and address the matters raised during consultation. The Review must identify (and consider), but not be limited to:

A. Current and future land use and associated pedestrian and cycle demand and needs;
B. Pedestrian and cycle impacts associated with the project;
C. The King Street Gateway Project, including potential Princes Highway traffic calming initiatives;
D. Alexandria Canal initiatives;
E. Regional and local pedestrian and cycling strategies;
F. Pedestrian and cycle safety, accessibility and connectivity, including to the public realm;
G. Intersection and signal phasing opportunities to reduce waiting and crossing times for pedestrians and cyclists;
H. Provision of upgraded cycle and pedestrian facilities within 1,000 metres of the boundary of the SPI, apart from the areas addressed in conditions B62(c) and B64; and
I. Concept designs for pedestrian and cycleway infrastructure and implementation timeframes.

Planning condition B50 reviewed the existing ATN network route plans, existing ATN routes and the proposed routes as part of WestConnex New M5. A condition of this review was that there where no reduced levels of cycle and pedestrian infrastructure. With regards to the condition, this review found that there was no reduced level of cycle and pedestrian infrastructure and specifically:

- There is an improved level of pedestrian and cycling infrastructure at St Peters Interchange including construction of a number of shared and separated paths
- There is a similar level of pedestrian and cycling structure in Kingsgrove/Bexley North after the reinstatement of the M5 East Linear Path northern shared path
- There is no substantive change to the pedestrian and cycling infrastructure along the “M5 East Green Link”

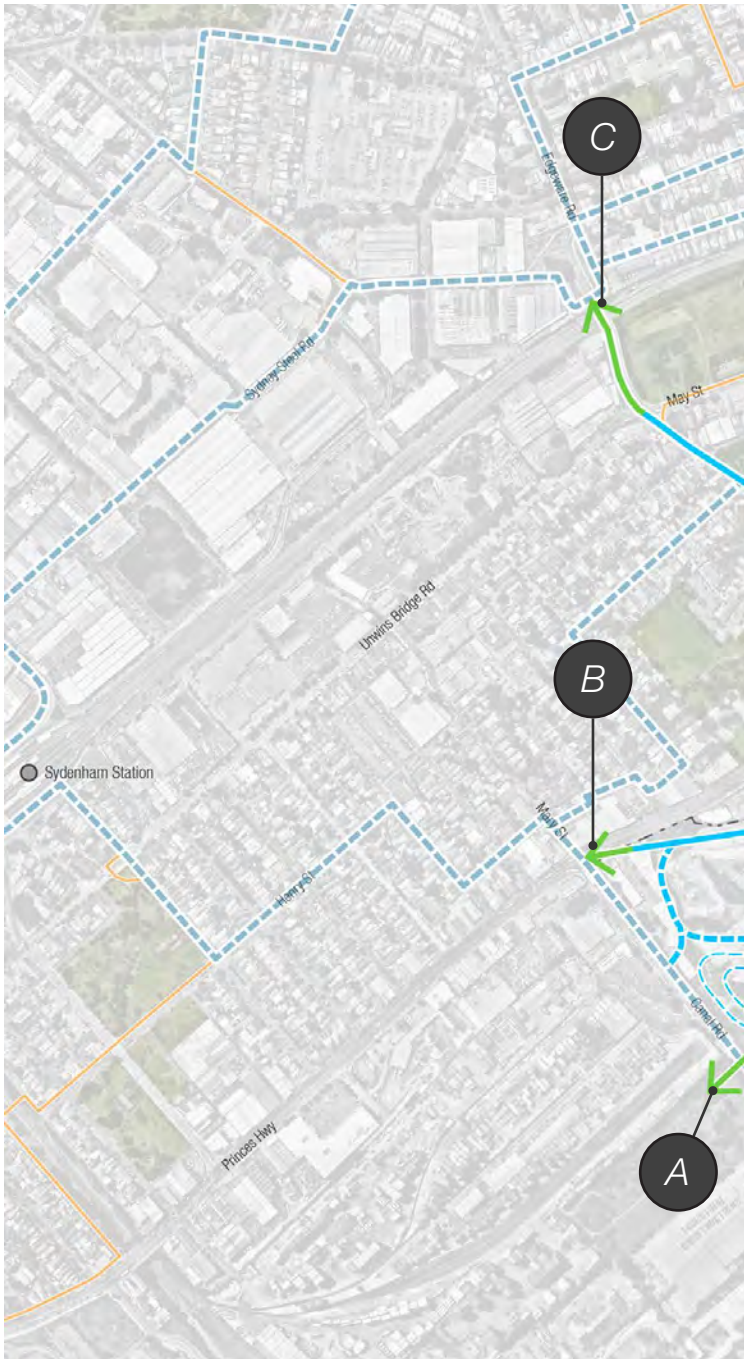
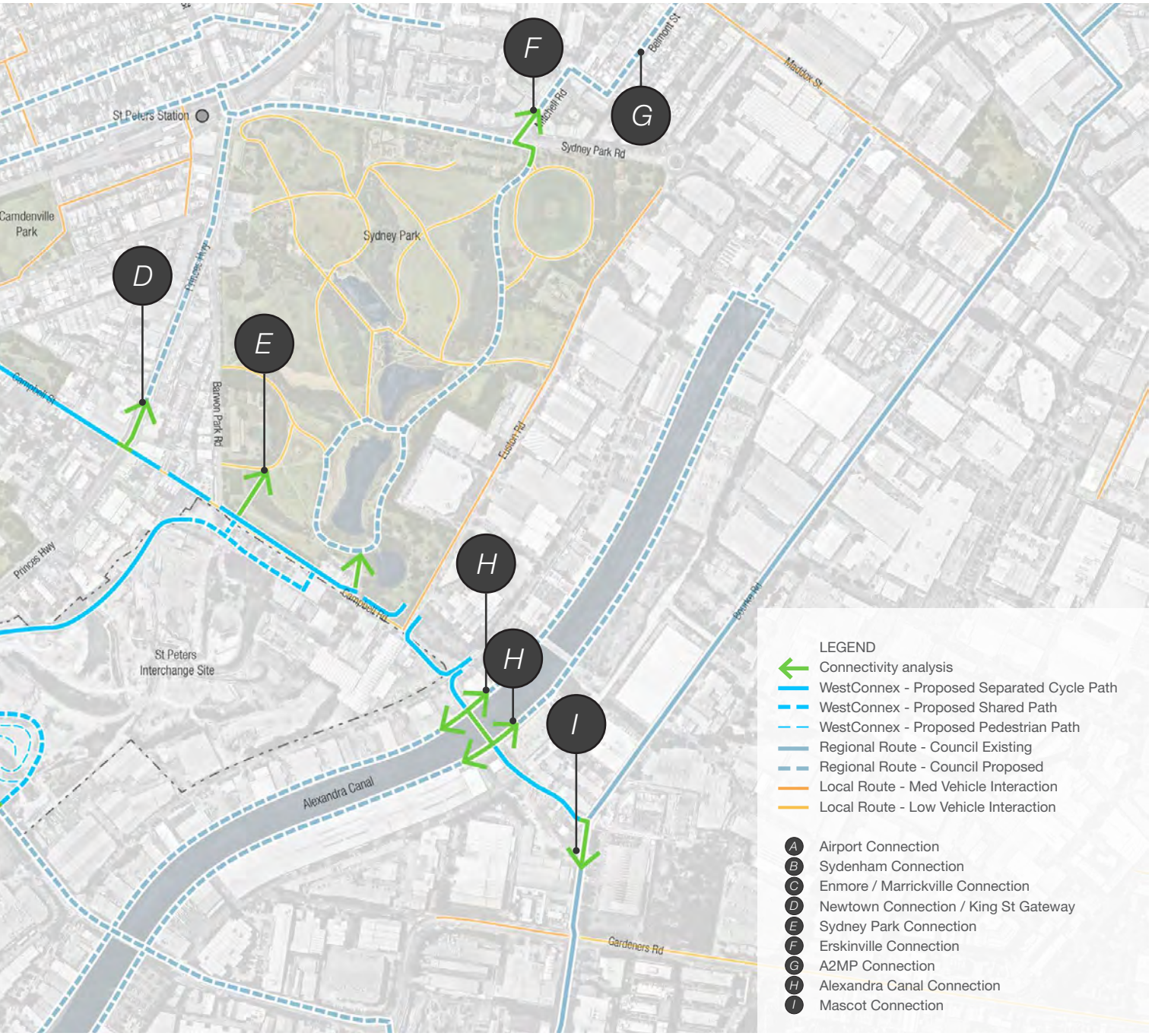


Figure 1.1 - Recommendations from Planning Condition B50 Review

The following table identifies the five gap projects identified by the pedestrian and cycleway network review.

	Option	Description	Next Steps
1	Sydenham Connection	Connecting St Peters Interchange to the residents of Sydenham and Sydenham Station across Princes Highway	Develop concept as part of B51 planning condition
2	Enmore & Marrickville connection	Connecting end of Campbell Street, across railway and south west towards Cooks River	Develop concept as part of B51 planning condition
3	A2MP Connection	Connecting Sydney Park Rd to the beginning of the Alexandria to Moore Park Upgrade	Develop concept as part of B51 planning condition
4	King St Gateway	Connecting Campbell Street to Newtown	Future project
5	Airport Link	Connecting SPI to Sydney Arport	Future project

Table 1.1 - SPI connection links for further investigation



St Peters Interchange

The current ATN network is limited in the vicinity of the SPI. The SPI will add connectivity to the former landfill, a site that currently has no connectivity and will provide further connectivity, to the south through the future Sydney Gateway proposal. After completion of these two projects there will be a link from the airport and Alexandra Canal ATN in the south to Sydney Park and Bourke St Cycleway in the north. As well as key regional level connectivity, there is enhanced local ATN connectivity to be provided as part of the SPI. This is outlined in table 1.2.

The ATN at SPI plays an important component in linking concurrent and future ATN projects which are planned including:

- City of Sydney Alexandra Canal path
- King St Gateway ATN network
- Sydney Gateway path network
- Alexandria to Moore Park path network

Element	Description	Length
Campbell Road cycle path	Separated cycleway along Campbell Road between Bourke Street and Unwins Bridge Road	1300m
Alexandra Canal Bridge	New bridge providing connectivity between Mascot and St Peters and Sydney Park	100m
Bourke Road separated cycle path	Separated cycleway along Bourke Road between Campbell Road and Church Ave	650m
SPI separated cycle path	Behind properties 178-310 to Princes Highway	750m
SPI shared path	Along Canal Road linking to future Sydney Gateway ATN	500m
Euston Road pedestrian foot path (subject to further discussion with CoS)	Pedestrian foot path along Euston Road between Campbell Road and Sydney Park Road	700m
Sydney Park Road separated cycleway	Separated cycleway along Sydney Park Road between Mitchell Road and Euston Road	250m
Sydney Park	Connecting the new Campbell Road separated cycleway to the existing shared paths within Sydney Park.	900m
New signalised intersection	Providing improved connectivity at Euston Road and Campbell Street	N/A
New signalised intersection replacing 2 lane round-about	Providing improved connectivity at Euston Road and Sydney Park Road	N/A
New signalised intersection replacing zebra crossing	Providing improved connectivity at Campbell Street and St Peters St	N/A

Table 1.2 - Enhanced local ATN connectivity as part of the SPI

M5 Green Link (Mascot to Bexley North)

A review of the M5 Green Link has been undertaken. This review found that:

- The eastern section along Alexandra Canal from Coward Street to Marsh Street was constructed including a link to Tempe Recreational Reserve in the south
- The central eastern section was not constructed between Princes Highway and Turella as considerable re-development was under construction (e.g. Discovery Point at Wolli Creek) and this infrastructure was expected to be completed as part of the re-development. However this infrastructure was not constructed as part of the re-development.
- The central western section between Turella and Bexley North was not constructed. The original preferred route along the rail line was not achievable due to a combination of technical cost and timing constraints. Alternate routes were considered including a route along Wolli Creek which was not considered acceptable by sections of the local community due to its potential impacts on the health of the Wolli Creek bushland reserve. A large number of on-road routes were considered but each of these routes included constraints which limited suitability including steep terrain and/or narrow road carriageways
- The western section along the M5 Linear Park between Bexley North and Kingsgrove was constructed as a shared path on both sides of the existing M5.

The key existing impediment to the M5 Green Link is the section between Turella and Bexley North. A number of recent strategies, including by Council and RMS, have considered sections of this route but are not considered to have fully resolved the constraints or provided a regional 'Green Link' connection.

The New M5 review found that the M5 Green Link between Turella and Princes Highway is an important link in a regional ATN, as it links key destinations and existing ATN routes. This review has identified a number of issues in the historical implementation of the M5 East Green Link. All of these historical issues remain to date as do the various preferences and requirements of landowners and stakeholders regarding the preferred route.

Resolution of these issues and determination of the preferred route would require more time and resources due to the complexity of the route planning, the land ownership, the local site factors and the preferences of the various landowners and stakeholders.

As the M5 East Green Link is an important regional link it is recommended that further options be developed and a preferred route is identified. The key step for this to occur is discussions with landowners and stakeholders. It is noted that while there may be differences in the preferred route alignment between stakeholders, there is general agreement on the requirement for the M5 East Green Link as an important component of regional ATN infrastructure.

A process to identify and further develop the preferred option for the M5 East Green Link is outlined below

- Meet with key landowners, particularly Railcorp, NPWS, local Councils and Discovery Point development as well as local Councils to obtain their current position on co-location of regional ATN infrastructure within their land
- Identify and meet with relevant stakeholders and their key contacts (including Bicycle NSW, community groups such as the Wolli Creek Preservation Society, local residents) and obtain their current position on the development of the regional ATN infrastructure
- Document key issues and outcomes of stakeholder and landowners
- Develop route options based on stakeholder and landowner consultation
- Undertake consultation with landowners on the route options focussing on the proposed routes on their land
- Shortlist route options based on discussions with landowners and present shortlisted route options to all relevant stakeholders to determine preferred routes
- Refine shortlisted route options based on discussion with stakeholders and undertake further focussed consultation with relevant landowners as required
- Document and report on outcomes of route planning options and preferred route option

RMS are unable to commit to a timeframe for the delivery of this project due to the significant uncertainty around the route, scope of work and the cost of the project, as described above.

The M5 Green Link cycle path has been excluded from the list of gap projects described in this report.

M5 East Linear Park (Kingsgrove to Bexley North)

There are temporary impacts associated with construction due to issues on sections of the shared path along the M5 Linear Path. However these impacts are minor due to the alternatives available including use of alternate shared paths. Post construction, the existing level of cyclist and pedestrian will be maintained after the re-construction of the existing shared paths to the same standards as existing shared paths. New paths, including lighting, have been provided between King Georges Road and the eastern end of the Western Interchange works in accordance with all current standards and guidelines.

1.3 PLANNING CONDITION B51

The following outlines Planning Condition B51 and where the various requirements have been addressed within this report:

A detailed Pedestrian and Cycle Implementation Strategy must be submitted to the Secretary within 12 months of the date of this approval (or as othenrvise agreed by the Secretary) and implemented at the commencement of project operations, except as permitted by this approval. The strategy must be prepared in consultation with relevant councils and Bicycle NSW. The Strategy must be consistent with the approved Pedestrian and Cycleway Network Review and include:

Condition	Requirement	Section Reference
B51(a)	Pedestrian and cycle engineering and safety standards	3.0
B51(b)	Safety audit of existing and proposed pedestrian and cycle facilities to address the above standards (including the shared path audit undertaken for the King Georges Road Interchange Project SSI-6547)	4.0
B51(c)	Details of selected routes and connections to existing local and regional routes	5.0
B51(d)	Timing and staging of all works	9.0
B51(e)	Infrastructure details, including lighting, safety, security, and standards compliance	6.0
B51(f)	Signage and wayfinding measures	7.0
B51(g)	Details of associated landscaping works	8.0

Table 1.3 - Planning Condition B51

The Strategy shall be endorsed by a suitably qualified and experienced person(s) approved by the Secretary. The endorsement shall address each of the listed matters in this condition.

All identified works arising from this condition are to be implemented by the Proponent.

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1.4 REPORT OVERVIEW

The scope of the proposed works is to develop an implementation strategy including concept designs for a number of the identified sites. The scope of works contains the following:

- Consultation (section 2.0)
- Engineering and safety standards (section 3.0)
- Safety audit (section 4.0)
- Proposed routes and connections (section 5.0)
- Infrastructure details (section 6.0)
- Signage and wayfinding (section 7.0)
- Associated landscaping works (section 8.0)
- Timing and staging of works (section 9.0)
- Summary and conclusions (section 10.0)

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Green Square to Randwick Cycle Way - Sydney, NSW

2.0 Consultation

2.1 CONCEPT DESIGN CONSULTATION MEETING

Stakeholder Workshop 9th March 2017

A stakeholder workshop was held 9th March 2017. The stakeholder workshop included representatives from Roads and Maritime Services, City of Sydney, Inner West Council, Bicycle NSW, TfNSW and McGregor Coxall. The list of attendees are shown in table 2.1.

The workshop was undertaken to review and address the missing ATN connections at the SPI for the following proposals:

- Sydney Park - Alexandria - Moore Park
- Campbell Road and Unwins Bridge Road connections
- Princes Highway and Canal Road intersection
- Canal Road Shared Path

The key outcomes of the workshop were as follows (see Appendix 09 for meeting minutes and presentation):

Sydney Park - Alexandria - Moore Park

- The crossing over car park entrance is preferred to include priority for pedestrians and bicycles including an automatic green phase and signals for cyclists
- Loss of carparks along Mitchell Road were raised and investigations into replacement car parks
- Queries were raised about the frequency of the 308 bus service

Campbell Street and Bedwin Road connections

- Investigate connections to the new through link to the lane which is being provided as part of the new development on May Street

Princes Highway & Canal Road intersection

- Further investigation requested into configuration of signalised intersection at Princess Highway requested taking into account future plans.
- Consideration of a south bound pedestrian crossing of Princes Highway to/from Mary St
- Consideration of placing eastbound cycle path on North side of Mary St, to avoid cyclists shortcutting intersection. Would require parking to be transferred from north side of Mary St to south side.
- Consider narrowing the turning circle into Mary St northbound from Princes Highway
- Need to show a shared path on Princes Highway from the pedestrian crossing to Mary St

Canal Road

- Investigate ending the cycle path earlier along Canal Road where the path leads into the park
- Investigate connection of the path on Canal Road at its south eastern end into the SPI parklands
- Consideration of a wider nature strip of 1.2m and shifting the alignment of the path accommodate this

A meeting was also conducted wtih Bike East.

Company	Attendees
RMS	
City of Sydney	
Inner West Council	
Bicycle NSW	
TfNSW	
McGregor Coxall	

Table 2.1 - Stakeholder workshop attendees

Stakeholder Workshop 3rd July 2017

A stakeholder workshop was held 3rd July 2017. The stakeholder workshop included representatives from Roads and Maritime Services, City of Sydney, Inner West Council, BikeEast representing Bicycle NSW, TfNSW and McGregor Coxall. The list of attendees are shown in table 2.2.

The workshop was undertaken to review current concepts proposed for the missing ATN connections at the SPI for the following proposals:

- Sydney Park - Alexandria - Moore Park
- Campbell Street and Bedwin Road connections
- Princes Highway and Canal Road intersection

Discussion was also raised on the additional cycle / pedestrian works outside of the Condition B51 Gap Sites. These sites are the following:

- King Street Gateway
- Campbell Road Land Bridge

The key outcomes of the workshop were as follows:

Sydney Park - Alexandria - Moore Park

- Discussion to relocate separated cycle path on Mitchell Road to the eastern side of the road was raised to avoid a complex cyclist intersection from Mitchell Road to Huntley Road. This was considered and will be further investigated during future design development.
- Suggestions to widen separated cycle path on Huntley Road from 2.5m to 3.0m

Campbell Street and Bedwin Road connections

- Queries were raised about the future proofing of the bridge width of the footpath along the eastern side of Bedwin Road.
- The removal of the separation kerb between pedestrians and cyclists was suggested.
- Queries were raised about the connection from Bedwin Road to Darley Street. Concepts where to be developed.
- The potential to widen the footpath on the western side of Bedwin Road Bridge was raised yet changes to a bridge structure for a 200mm width increase was not justified.

Princes Highway & Canal Road intersection

- Suggestions to replace the contraflow lane for a 2.5m shared path on eastern side of Mary Street due to lane width and a continued use by heavy vehicles.
- Unwins Bridge Road cycle path is unlikely to proceed, shared path recommended to connect to Bakers Lane only.
- Foot path improvements were discussed and will be upgraded as per the new shared path.

Company	Attendees
RMS	
City of Sydney	
Inner West Council	
Bicycle NSW	
TfNSW	
McGregor Coxall	

Table 2.2 - Stakeholder workshop attendees

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3.0 Engineering and Safety Standards

3.1 BICYCLE GUIDELINES

All proposed facilities are required to comply with the current versions of the following guidelines:

- AS1742.9 Australian Standard – Manual of Uniform Traffic Control Devices – Part 9: Bicycle Facilities.
- AS1742.10 Australian Standard – Manual of Uniform Traffic Control Devices – Part 10: Pedestrian Control & Protection.
- Austroads – Guide to Road Design - Part 6A: Pedestrian & Cyclist Paths
- Austroads – Guide to Road Design - Part 4: Intersections & Crossings
- Austroads – Cycling Aspects of Austroads Guides.

Table 3.1 highlights the range of bicycle facilities and the associated concept in which it is used. These concepts can be found in section 5 of the report.

Cycle Infrastructure Standards	Used in
Linemarking and pavement symbols	– Sydney Park - Alexandria - Moore Park – Campbell Street & Bedwin Road connections – Princes Highway & Canal Road intersection
Separated cycle lane (two way)	– Sydney Park - Alexandria - Moore Park – Campbell Street & Bedwin Road connections
Shared path (two way)	– Sydney Park - Alexandria - Moore Park – Campbell Street & Bedwin Road connections – Princes Highway & Canal Road intersection
Contraflow	– Princes Highway & Canal Road intersection
Crossing at traffic signal (shared path)	– Sydney Park - Alexandria - Moore Park – Campbell Street & Bedwin Road connections – Princes Highway & Canal Road intersection
Crossing at traffic signal (off road bicycle path)	– Sydney Park - Alexandria - Moore Park – Campbell Street & Bedwin Road connectionsPrinces Highway & Canal Road intersection
Crossing on platform one way off road bicycle path intersection	– Sydney Park - Alexandria -Moore Park
Crossing on platform two way off road bicycle path intersection	– Sydney Park - Alexandria -Moore Park

Table 3.1 - Cycle infrastructure facilities

3.2 PEDESTRIAN INFRASTRUCTURE STANDARDS

When allocating space throughout the city, there are many competing factors that need to be considered such as; pedestrian and vehicle movement space, pedestrian volumes, traffic volumes, safety and accessibility, transportation routes, locations of shelters etc. To provide pedestrian space that is safe and accessible for all, Pedestrian Through Zone widths must meet a minimum of 1.2m in all streets. Table 3.2 outlines the preferred footpath widths and public domain furniture zone widths. For further detailed information on pedestrian infrastructure standards refer to the City of Sydney 'Sydney Street Design Code - Part E.'

Council specifications on concrete pedestriasn paving is included in appendix 12

Pedestrian Infrastructure Standards	Public Domain Furniture Zone Width (m)	Pedestrian Through Zone Width (m)
City streets	1.0 - 2.0	3.0 - 4.0
Village centres and activity strips	1.0 - 1.5	2.5 - 3.5
Local streets (mid-high activity streets)	1.0 - 1.5	2.0 - 3.5
Local streets (low-mid activity streets)	0.6 - 1.5	1.5 - 2.0
Laneways	Shared zone	Shared zone 1.2
Shared zones	2.0 - 3.0	2.8 - 3.2
Slow streets	1.0 - 1.5+	2.0 - 3.5

Table 3.2 - Pedestrian infrastructure standards (Sydney Streets Design Code)

Note: Councils to be consulted for the latest requirements during detail design phase

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Bourke Street Cycle Way - Sydney, NSW

4.0 Safety Audit

4.1 EXISTING PEDESTRIAN AND CYCLE FACILITIES

On February 16, 2017, selected sites, as seen in table 4.1, where audited and a risk assessment was made using a risk matrix located in Appendix 10 which measures the potential consequences and the likelihood of this event happening. The M5 Linear Park has been previously audited and extracted form the 'King Georges Road Interchange Upgrade Cycling and Pedestrian Access Strategy' which can be found in Appendix 11.

Audit Methodology Approach

The 'WestConnex New M5 Pedestrian & Bicycle Transport Network Review' undertook a connectivity analysis to identify any gaps between the existing ATN and the proposed ATN. The connectivity analysis audit highlighted a number of gaps in the ATN and this report develops designs for those gaps.

This review also undertook a safety audit of the existing ATN adjacent to the New M5 proposed ATN to determine the quality of these existing routes and to further highlight any gaps between the existing network and the proposed network. A desktop study identified the following 4 areas that required a physical audit. These 4 areas were identified because of the lack of an obvious connection between the proposed works for the New M5 and the existing ATN. These sites were:

- Mitchell Road: Between the intersection of Mitchell Road and Sydney Park Road and Belmont Street
- Campbell Street: Campbell Street and May Street intersection including Bedwin Road Bridge and the entrance to Camdenville Park from May Street
- Princes Hwy Intersection: Princes Hwy and Canal Road intersection
- Canal Road: Canal Road between Princes Hwy and Ricketty Street

To audit these 4 sites, the process included the following:

- Site inspection to identify existing conditions
- Measure the existing conditions against the standards and guidelines relevant to the audited element
- Develop a risk assessment matrix
- Rate the audited sites against standards and guidelines and grade the audited sites from 1-5 (very poor – excellent). This is shown in figure 4.7.

This report also audited all of the proposed designs for the New M4-M5 ATN and the following steps were taken:

- Review the M4-M5 ATN proposed designs
- Compare the proposed designs to relevant standards and guidelines
- Identify any non-compliance of the proposed designs
- The results of this are shown in section 6.0.

Figure 4.1 - Sydney Park (excellent)

Figure 4.2 - Belmont St (good)

Figure 4.3 - Mitchell Road (average)

Figure 4.4 - May Street (poor)

Figure 4.5 - Canal Road (very poor)

	Audited Site	Key Findings
A	Mitchell Road	Mitchell Road was considered average because of uneven surfaces and narrowed path width caused by neighboring tree roots and overgrown vegetation. Blind spots when crossing driveways were also considered hazardous to pedestrians and cyclists. The shared path abruptly ends and does not have a clear connection onto Belmont St which features a good on road cycle facility.
B	Campbell Street	The pedestrian path connecting Camdenville Park to the intersection of May Street and Campbell Street narrows due to overgrown street trees and residents rubbish bins that have been left out. Bedwin Road also features narrowing sections from street poles, sign poles and a narrowed footpath as the road crosses the railway line.
C	Princes Highway and Canal Road Intersection	The existing pedestrian and cycle conditions were considered poor due to uneven surfaces and extended waiting times at pedestrian crossings.
D	Canal Road	The eastern pedestrian footpath was graded as very poor. The majority of this path was made up of broken pavement and covered by overgrown vegetation or dirt. Very uneven surface and very narrow, especially when passing bus stops.
E	Sydney Park	The shared paths through Sydney Park were in excellent condition. The junction between the north entrance of the park and Mitchell Road was considered average.

Table 4.1 - Safety audit sites and key findings

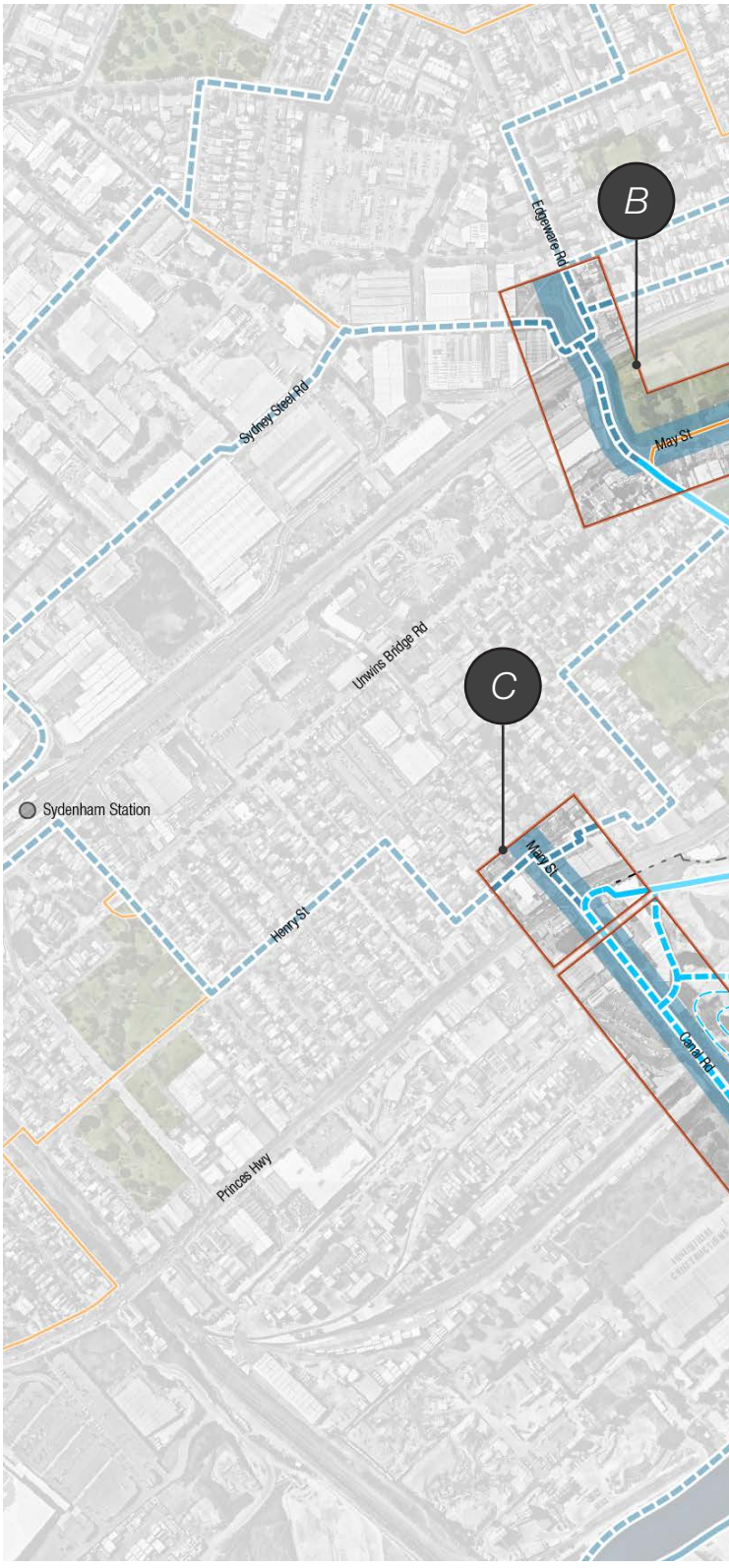
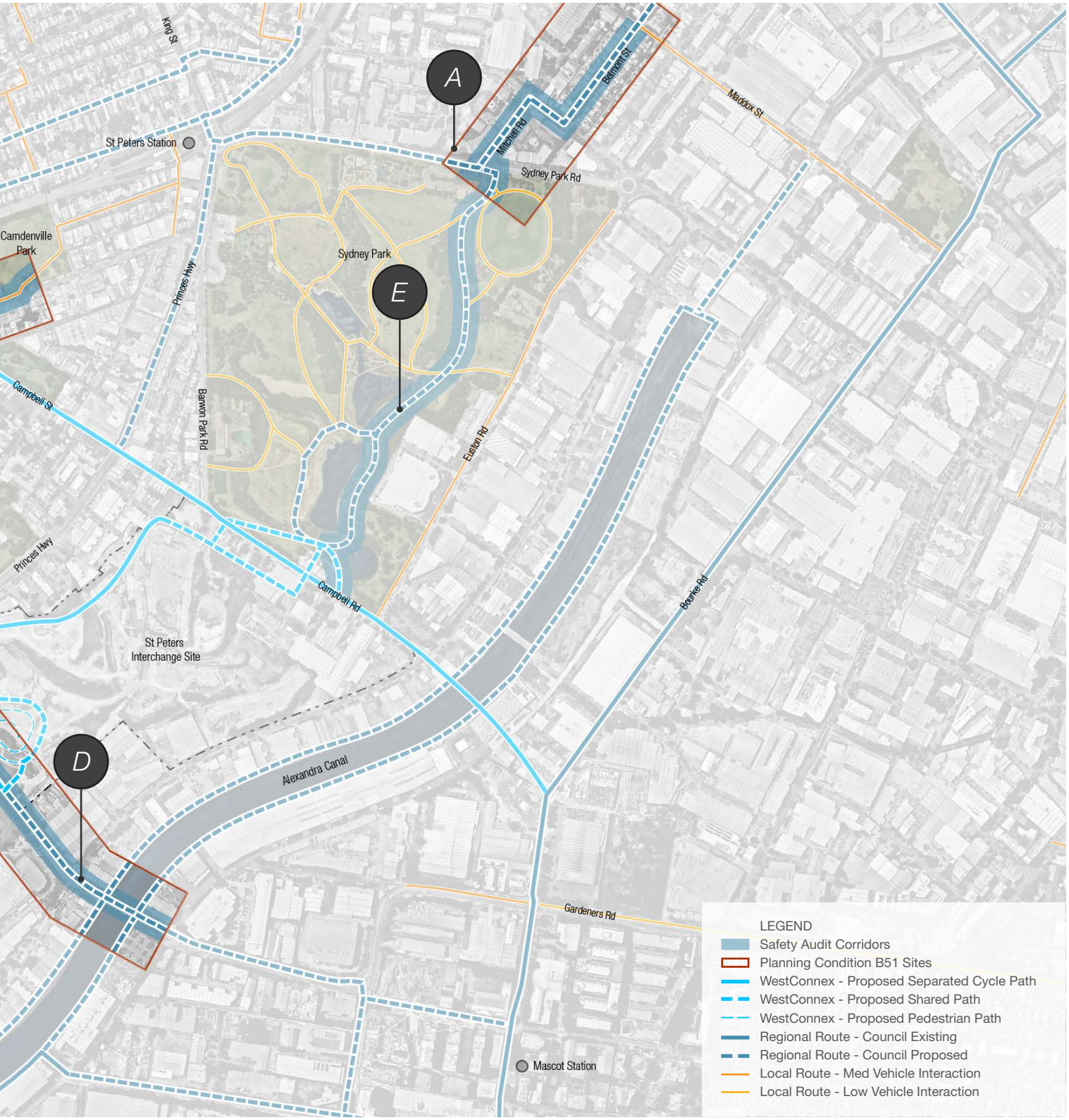


Figure 4.6 - Safety Audit Corridors


A
E
D
King St
St Peters Station
Camdenville Park
Princes Hwy
Sydney Park
Sydney Park Rd
Mitchell Rd
Belmont St
Maddox St
Campbell St
Barwon Park Rd
Euston Rd
Princes Hwy
Campbell Rd
St Peters Interchange Site
Alexandra Canal
Bourke Rd
Gardeners Rd
Mascot Station
LEGEND
Safety Audit Corridors
Planning Condition B51 Sites
WestConnex - Proposed Separated Cycle Path
WestConnex - Proposed Shared Path
WestConnex - Proposed Pedestrian Path
Regional Route - Council Existing
Regional Route - Council Proposed
Local Route - Med Vehicle Interaction
Local Route - Low Vehicle Interaction

Safety Audit Summary

As a part of the safety audit conducted on February 16th, 2017, audited sites / corridors where graded and given a score from 1 – 5 (excellent, good, average, poor, very poor). The following figure displays these grades throughout the audited sites. Detailed safety audit information can be found in appendix 10.

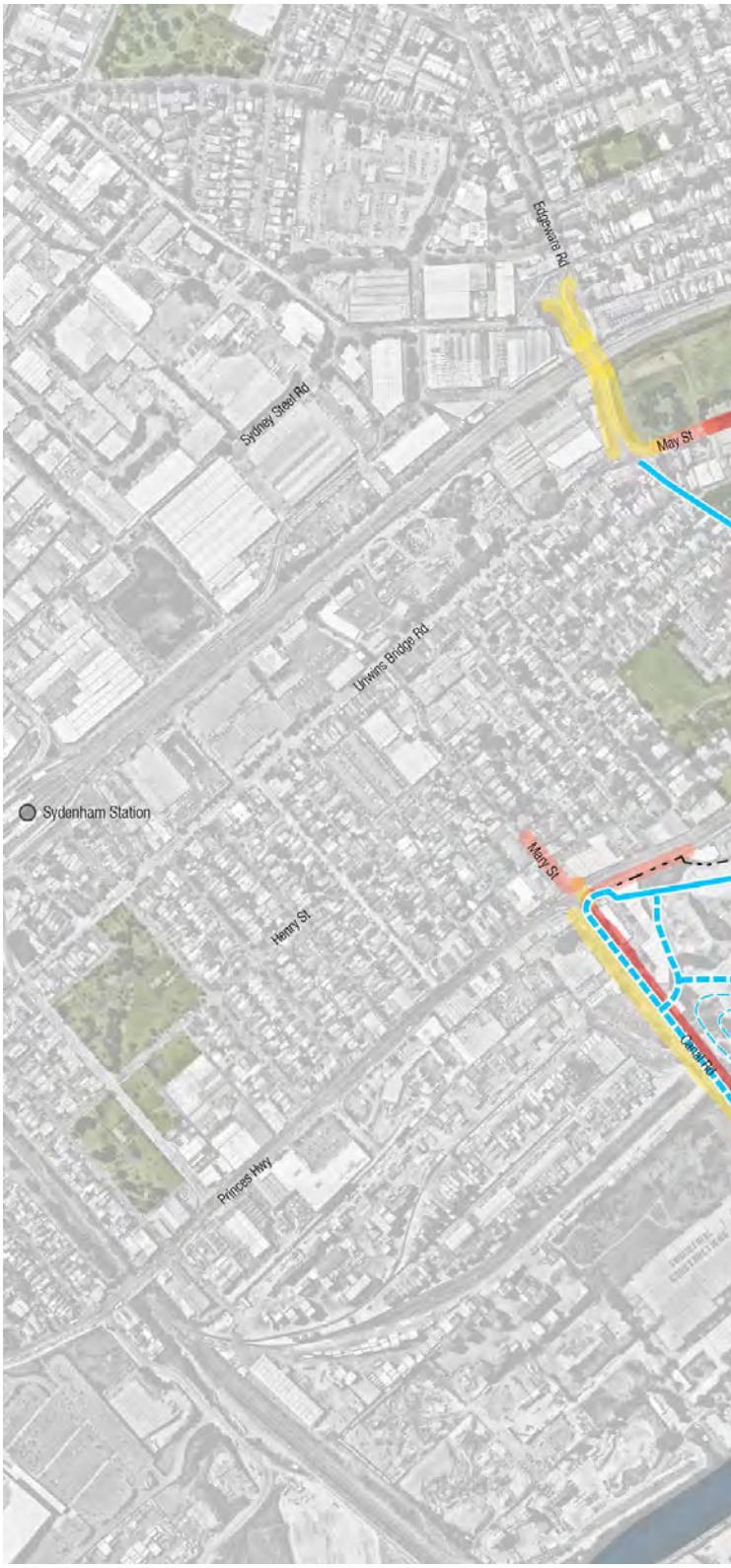
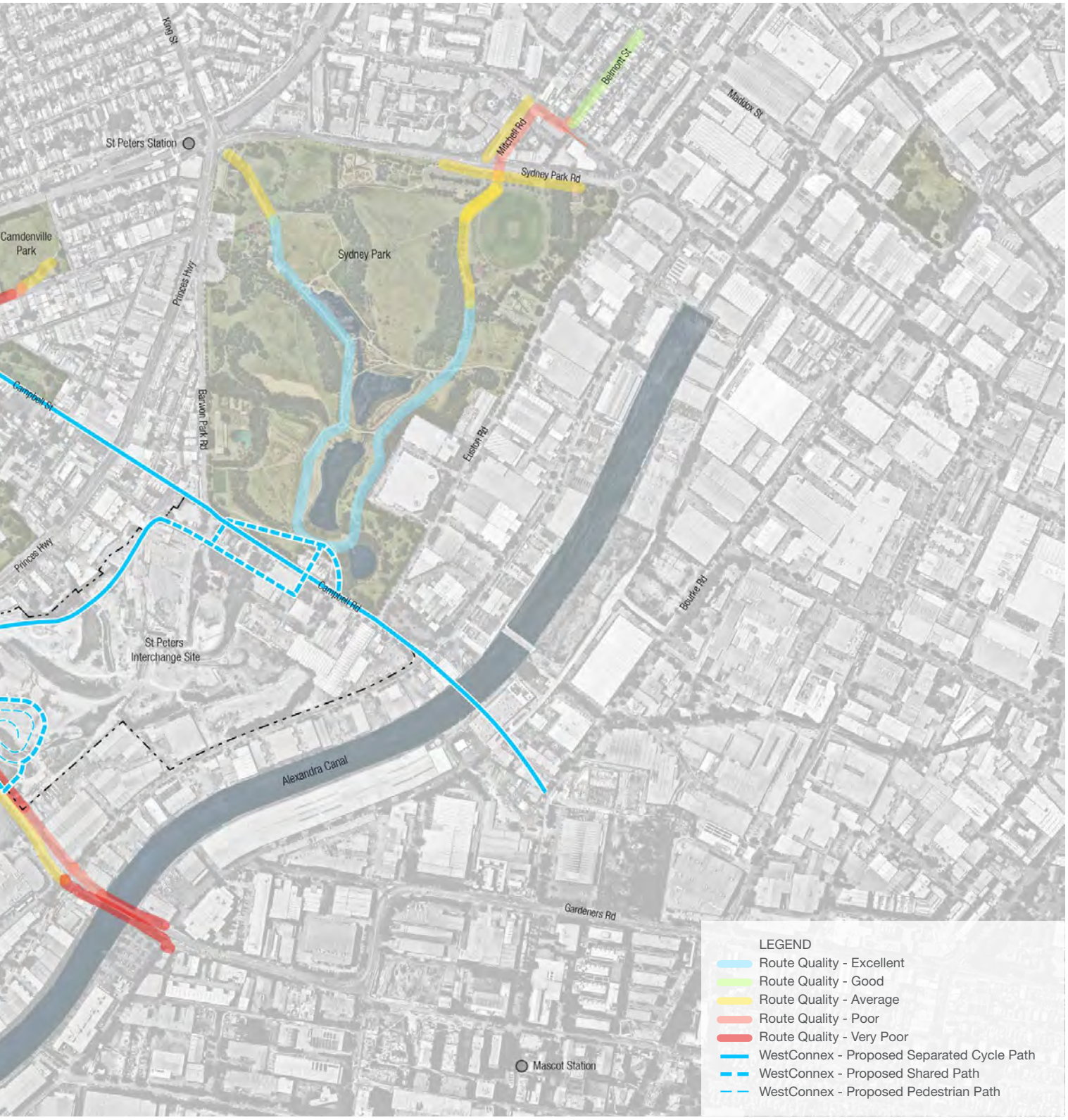


Figure 4.7 - Summary of safety audit


King St
St Peters Station
Camdenville Park
Princes Hwy
Sydney Park
Belmont St
Mitchell Rd
Maddox St
Sydney Park Rd
Campbell St
Barwon Park Rd
Euston Rd
Princes Hwy
Campbell Rd
St Peters Interchange Site
Bourke Rd
Alexandra Canal
Gardeners Rd
Mascot Station
LEGEND
Route Quality - Excellent
Route Quality - Good
Route Quality - Average
Route Quality - Poor
Route Quality - Very Poor
WestConnex - Proposed Separated Cycle Path
WestConnex - Proposed Shared Path
WestConnex - Proposed Pedestrian Path

George Street Cycle Way - Sydney, NSW

5.0 Proposed Routes and Connections

Section 5.0 outlines the following proposals. For further detail on these proposals, refer to the appendix.

WestConnex New M5:

- Campbell Road between May Street & Bourke Road
- Euston Road and Sydney Park Road intersection
- St Peters Interchange cycle path
- M5 East Linear Park shared path
- St Peters Interchange Recreation Area

Condition B51 Improvements:

- Sydney Park - Alexandria - Moore Park
- Campbell Street and Bedwin Road connections
- Princes Highway and Canal Road intersection
- Sydenham Station Connection
- Canal Road Shared Path

Future RMS Projects:

- King Street Gateway
- Airport Gateway

5.1 CAMPBELL ROAD BETWEEN MAY STREET & BOURKE ROAD

The Campbell Road separated cycleway will be delivered as a part of the WestConnex New M5 Project. Refer Appendix 01 for detailed drawings of the 'Campbell Road - Road Geometry' extracted from WestConnex New M5 package M5N-AJV-DPK-700-300-RD-7000 (05/07/2117).

The Campbell Road separated cycleway is situated along the southern end of Sydney Park, from May Street to Barwon Park Road as Campbell Street then it turns into Campbell Road and continues over the proposed Alexandra Canal bridge to Bourke Road (shown in figure 5.2). It is associated with the local road upgrades for the St Peters Interchange and is discussed in detail in the Green Link Sub-Plan for Campbell Street featuring a 2m wide footpath and 2.5m wide cycleway. It will connect with the separated bike path along Bourke Road allowing for cyclists to travel into the city linking Mascot to Newtown and St Peters to Enmore while also connecting into Sydney Park and the proposed SPI shared path.

RMS has directed the following minor adjustments to the approved EIS layouts to improve pedestrian and cycle access within the WestConnex New M5 scope of works area:

- Upgrade the footpath along the southern side of Campbell Street between Unwins Bridge Road and Princes Highway to a shared path for cycling connectivity between local roads to the south of Campbell Street, and the separated cycleway along the northern side of Campbell Street.
- Upgrade footpath between Princes Highway and SPI shared path (along northern side of Albert St) to a shared path to improve access between SPI and Campbell Road.
- Provide an additional signalised single phase crossing for Campbell Street at the northern leg of the St Peters St intersection.
- Upgrade footpath on northern side of Bedwin Road to a 2.5m - 2.0m separated cycle way between May St and railway crossing.
- Include dedicated cycle signals at intersections which have dedicated cycle paths, including May Street and Princes Highway.
- Provide additional shared path connections between the proposed future canal paths (on the east side of canal) to the signalised pedestrian crossing on Campbell Road, including all necessary lighting.

Figure 5.1 - Concept location

Figure 5.2 - Campbell Road concept

- Provide a shared pathway through the underpass under the Campbell Road Bridge, including lighting. Note that the underpass will be fenced off until the City of Sydney has constructed the connecting canal paths to minimise safety, vandalism and graffiti risk within the underpass.
- Upgrade the footpath along the southern side of Campbell Street between Euston Road and Burrows Road (south) to a shared path for cycling connectivity from Burrows Road to the cycling network.
- Provide cycle lanterns at the eastern crossing of Campbell Street, at the intersection with Unwins Bridge Road / May Street.
- Provide cycle lanterns at all crossings at the Princes Highway and Campbell Street intersection.
- Provide cycle lanterns at all crossings at the Campbell Street intersection with the Stage 3 Ventilation Facility access road.
- Provide cycle lanterns at both crossings of Campbell Road at the intersection with Euston Road.

5.2 EUSTON ROAD & SYDNEY PARK ROAD INTERSECTION

The Euston and Sydney Park Road intersection will be delivered by the WestConnex New M5 project. Refer Appendix 02 for detailed drawings of the Euston Road Upgrade.

The Euston Road upgrade provides the following:

- Pedestrian footpaths on both sides of Euston Road up to the Sydney Road intersection.
- Existing footpath retained on the eastern side of Euston Road before the Sydney Park Road Intersection.
- Traffic control signals located at the intersection and provide controlled crossing points in all directions for pedestrians.

Euston Road intersection works will link into the B51 improvement works to the west at Mitchell Road (Sydney Park – Alexandria – Moore Park route) where the pedestrian path will link into a shared path.

RMS has directed the following minor adjustments to the approved EIS layouts to improve pedestrian and cycle access within the WestConnex New M5 scope of works area:

- Upgrade the footpath at the Sydney Park Road connections to Huntley Street, to a 3.0m shared path for cycling connectivity from Huntley Street to Sydney Park
- Provide cycle lanterns and wider crossings at the western crossing of Sydney Park Road, and the left turn slip lane, at the intersection with Euston Road.

The phasing of the two signalised crossings (to the north-west traffic island and across Sydney Park Road) are to be coordinated so that pedestrians and cyclists have the same level of service as motorists using Euston Road through the intersection.

Figure 5.3 - Concept location

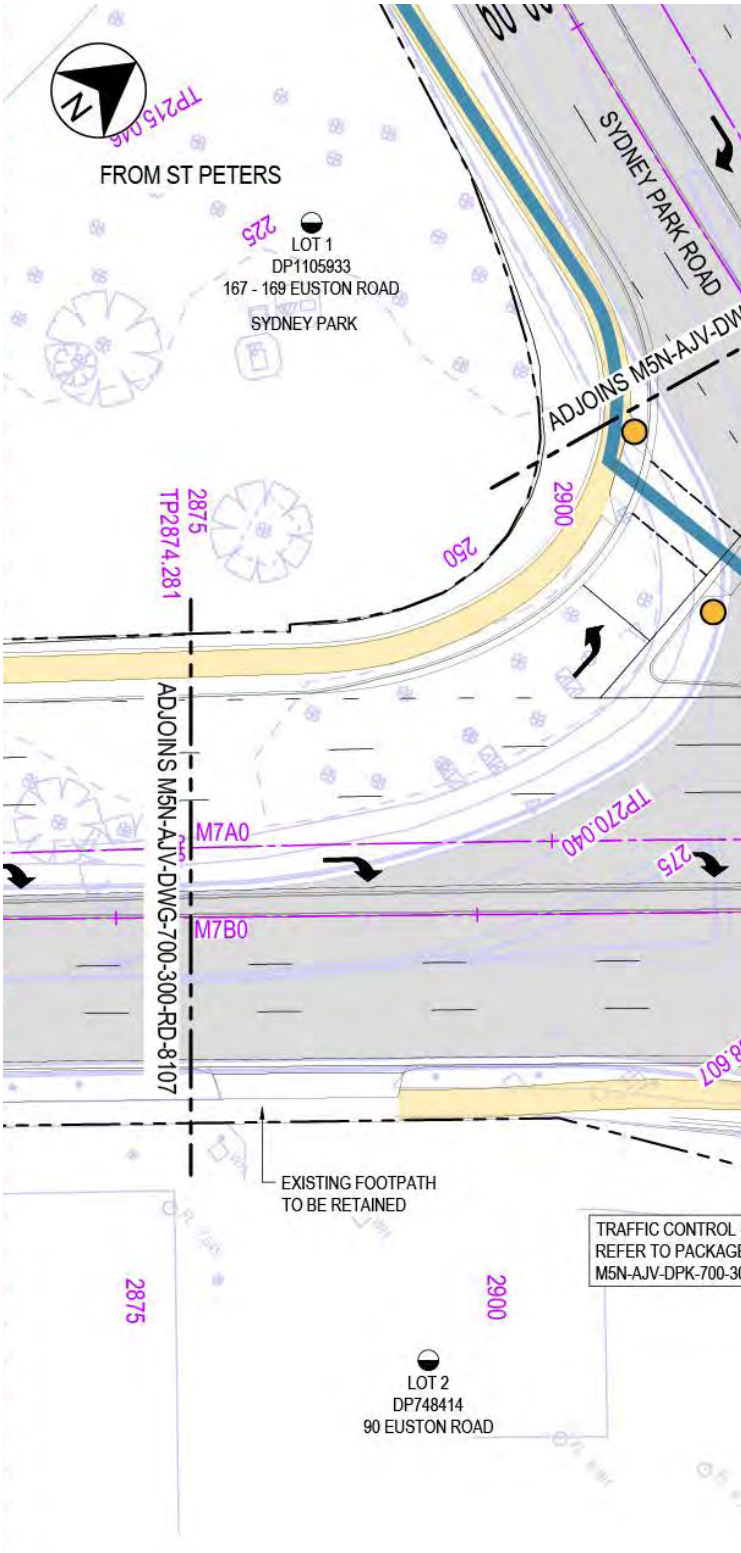
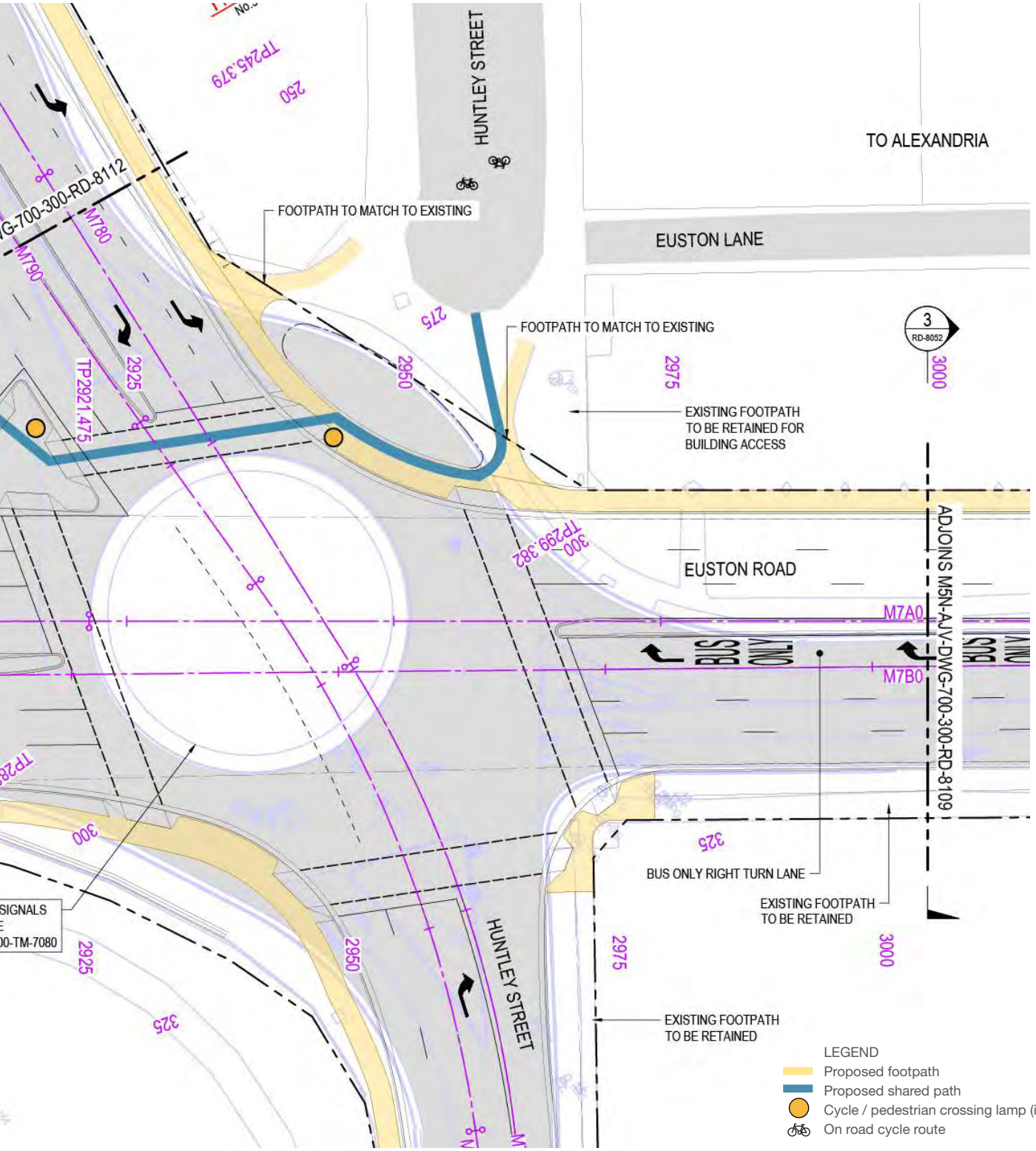


Figure 5.4 - Euston Road & Sydney Park Road intersection


HUNTLEY STREET
TO ALEXANDRIA
FOOTPATH TO MATCH TO EXISTING
EUSTON LANE
FOOTPATH TO MATCH TO EXISTING
EXISTING FOOTPATH TO BE RETAINED FOR BUILDING ACCESS
EUSTON ROAD
ADJOINS M5N-AJV-DWG-700-300-RD-8109
BUS ONLY
BUS ONLY RIGHT TURN LANE
EXISTING FOOTPATH TO BE RETAINED
EXISTING FOOTPATH TO BE RETAINED
HUNTLEY STREET
LEGEND
Proposed footpath
Proposed shared path
Cycle / pedestrian crossing lamp (indivative)
On road cycle route

5.3 ST PETERS INTERCHANGE CYCLE PATH

The SPI cycle path will be delivered by the WestConnex New M5 project. Refer Appendix 03 for detailed drawings of the SPI shared path.

The St Peters Interchange cycle path crosses Campbell Road from Sydney Park on a proposed bridge. It then turns west and heads around the side of the proposed recreational space and interchange onto Canal Road and Albert Street as seen in figure 5.8. It is associated with the Campbell Road Crossing and St Peters Interchange Recreational Area as seen in the Sub-Plan. It is a 3m wide share cycle path. Locally it will connect into council planned bicycle routes. More broadly it will link St Peters to Sydney and to the future Sydney Gateway. The shared path will also incorporate an access connection to the Bishop St carpark to provide an alternative entry/exit point at the midpoint of the SPI shared path.

Figure 5.5 - Concept location

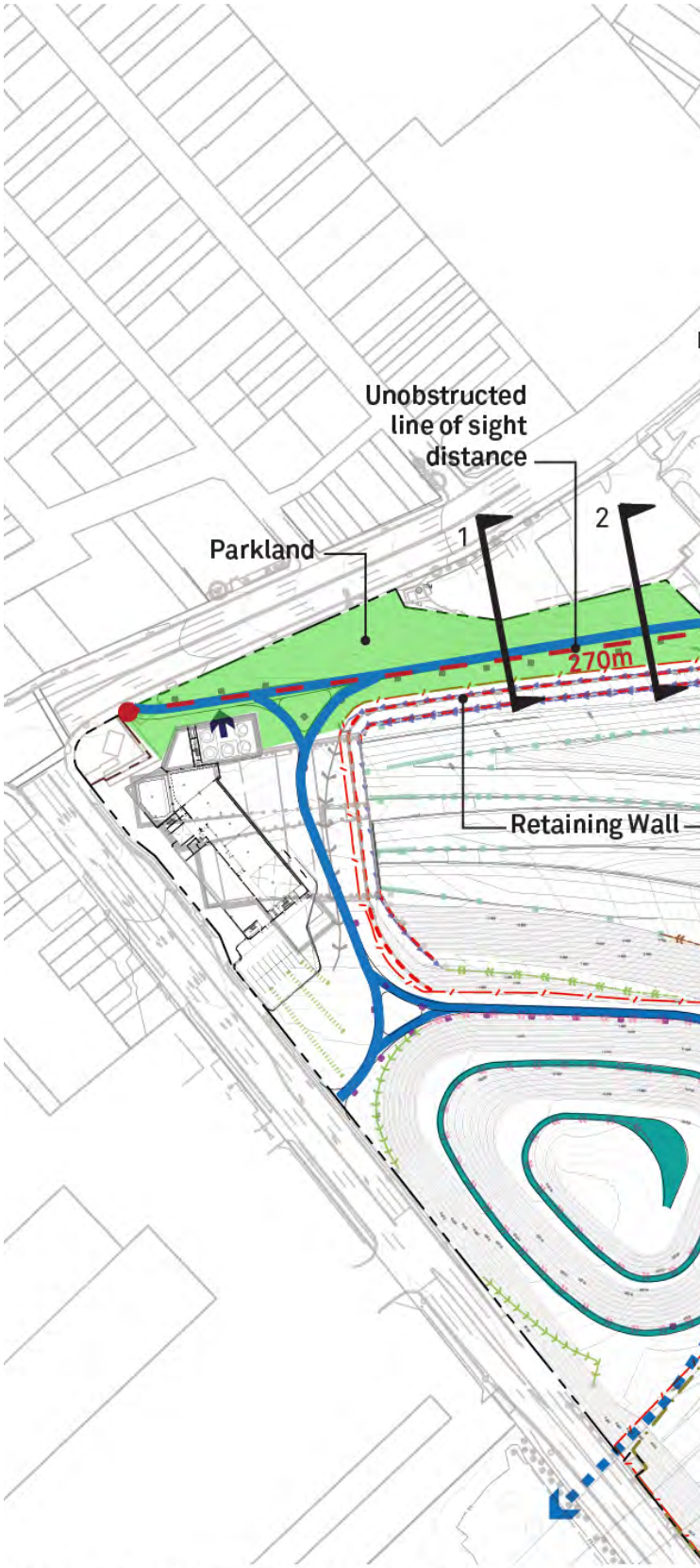
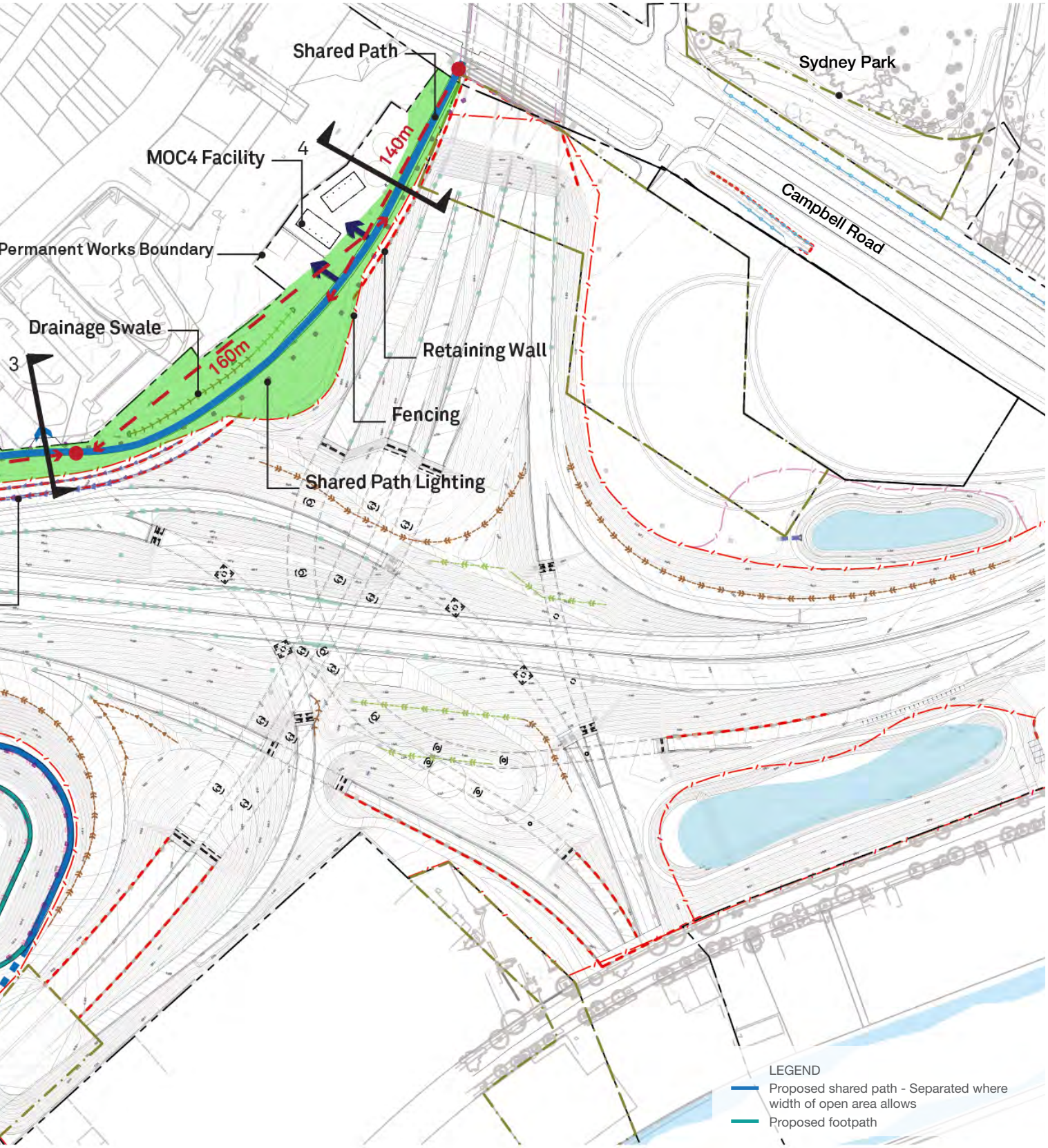


Figure 5.6 - St Peters Interchange shared path (Hassell)


Shared Path
Sydney Park
MOC4 Facility
4
140m
Campbell Road
Permanent Works Boundary
Drainage Swale
160m
3
Retaining Wall
Fencing
Shared Path Lighting
LEGEND
Proposed shared path - Separated where width of open area allows
Proposed footpath

5.4 M5 EAST LINEAR PARK SHARED PATH

Refer Appendix 04 for detailed drawings of the New M5 East Linear Park shared path and the King Georges Road Intersection Upgrade (KGRIU).

KGRIU

The Westconnex Stage 2 M5 King Georges Road Interchange Upgrade investigated options to improve the King Georges Road intersection for pedestrians and cyclists. This was addressed as part of the "Cyclist and Pedestrian Access Strategy: Part 2 Implementation".

Westconnex completed a design review and feasibility assessment of the options presented in the EIS. An option to introduce a new pedestrian and cycle signal to the northern side of the intersection was also considered.

This option was accepted and the design for a modified signal intersection was further progressed. The approved design is shown in Appendix 04

The new signal will enable pedestrians and cyclists to cross from the north-western to the north-eastern corner of King Georges Road during peak periods, within 1 minute of activating the crossing request. The study notes that the validity of this option is predicated on low pedestrian and cyclist use in peak periods in order not to compromise the vehicle traffic efficiency at the intersection.

The TCS 2811 option will result in an improved outcome for pedestrians and cyclists. The scope of work for this option has been included in the King Georges Road Interchange Upgrade Project, with the work currently in progress. The intersection works will be completed and operational by the end of February 2017.

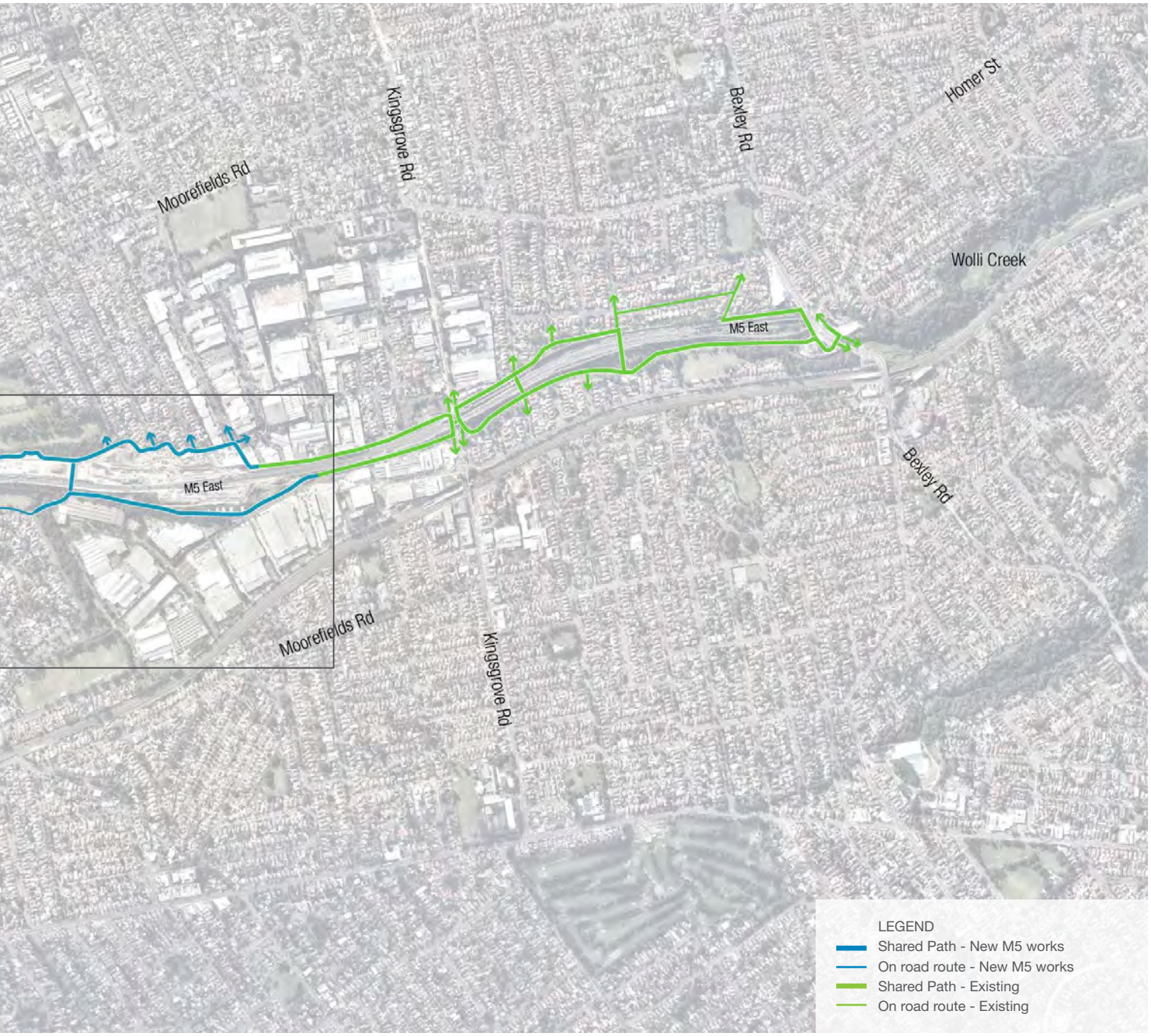
Figure 5.7 - Concept location

M5 East Linear Park Shared Path

The M5 East Linear park shared path is currently being constructed along the northern and southern sides of the M5 motorway. The new shared path upgrade spans from King Georges Road intersection in the west and connects to the existing shared path network in the east as shown in figure 5.8.

Figure 5.8 - M5 East Linear Park shared path

The shared path travels west linking into Kooemba Road and Tallawalla Street on the south side of the M5 to further connect to the existing shared path at Beverly Grove Park. The proposed shared path on the north side of the motorway will connect into Rosebank Ave, Armitree Street, Glamis Street and Garema Circuit before linking onto the existing shared path on that travels east towards Kingsgrove Road and further on to Bexley Road. An audit on the existing shared path was conducted for the upgrade of the pedestrian and cyclist facilities, this can be found in Appendix 11.



5.5 ST PETERS INTERCHANGE RECREATION AREA

The SPI Recreation area is part of the residual lands from the WestConnex New M5 project. The SPI Recreation area will include a 3m shared path that will link the SPI shared path to the Campbell Road separated cycle way and the Sydney Park shared path in the north-east. The shared path as the Rec area will enable access to the Rec area as well as broader connectivity in the broader regional cycle network.

The active transport network at the SPI Recreation area are shown in the adjacent figure and include the following:

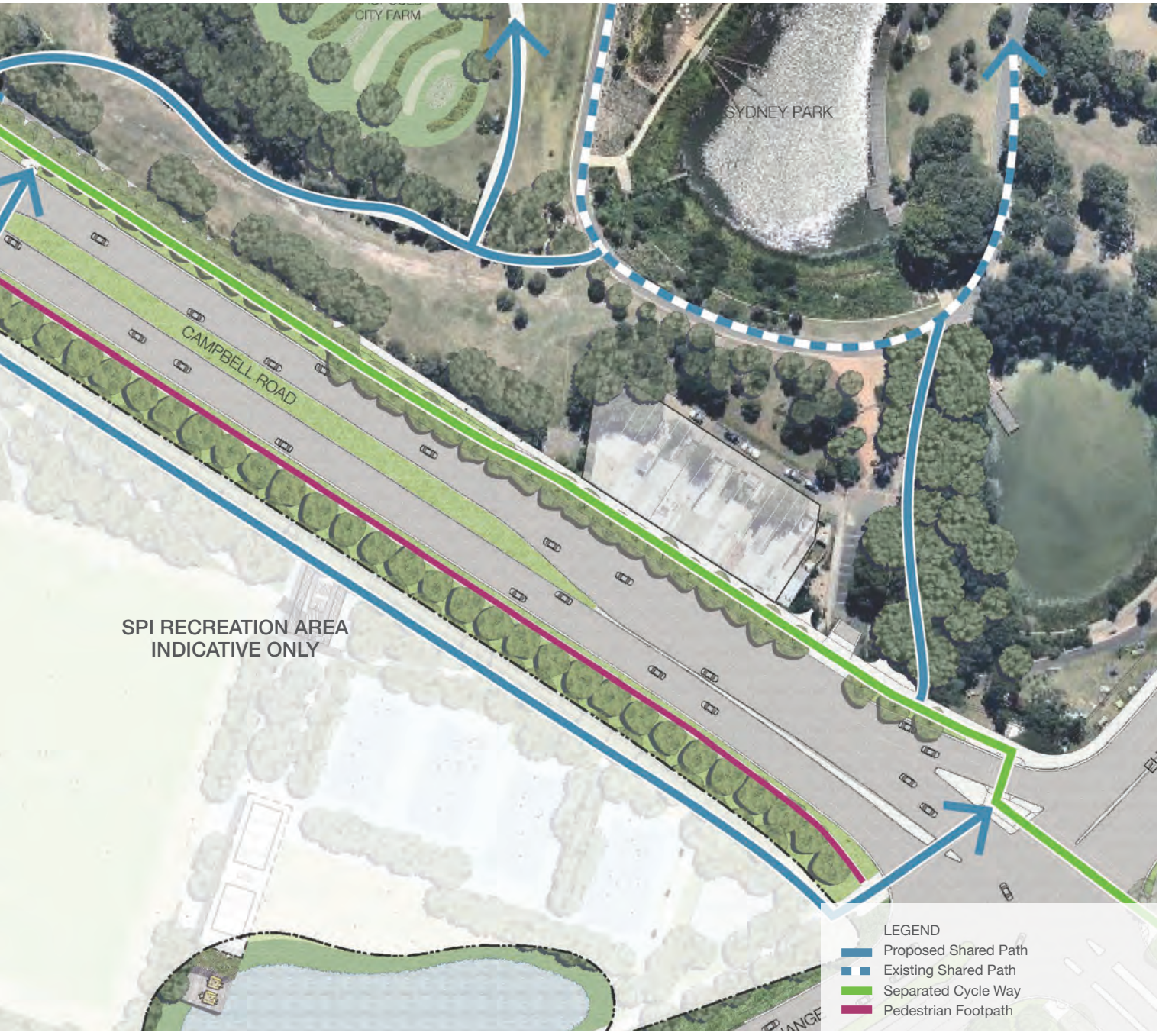
- A new shared path running parallel to Campbell Rd along the eastern boundary of the Rec area and the operational facilities
- A new signalised crossing on the entrance road to the operational facilities immediately north west of the Rec area
- Access from the west via a new connection to the signalised intersection at Campbell Rd and the entrance road to the operational facilities to allow for crossing of Campbell Rd. This provides access to the north via Sydney Park and the new shared path connections in Sydney Park
- Access from the east via a new connection to the signalised intersection at Campbell Rd and Euston Road to to allow for crossing of Campbell Rd
- Connections into the SPI shared path to provide for connections from the south to the Rec area and transiting through the Rec area to the north.

The connection from the SPI shared path to the SPI Recreation Area will cross an access road used for the interchange facilities, this access road has low vehicle volume.

Figure 5.9 - Concept location

From the SPI Recreation Area shared path, two signalised intersections will cross Campbell Road and link into the Campbell Road separated cycle path. The Campbell Road separated cycle path then links into the Sydney Park shared path at two locations, at the corner of Campbell Road and Barwon Park Road and corner of Campbell Road and Euston Road.

Figure 5.10 - St Peters Interchange Recreation Area


CITY FARM
SYDNEY PARK
CAMPBELL ROAD
SPI RECREATION AREA
INDICATIVE ONLY
LEGEND
Proposed Shared Path
Existing Shared Path
Separated Cycle Way
Pedestrian Footpath

5.6 SYDNEY PARK - ALEXANDRIA - MOORE PARK

The Condition B50 review has identified a gap between the existing shared paths within Sydney Park and the on road cycleway in Belmont St connecting to Alexandria. At the north side of Sydney Park exiting across Sydney Park Road onto Mitchell Road is a proposed off road bike lane. It is associated with road works on the local streets surrounding the St Peters Interchange. It is 3m wide and it turns onto Huntley Street where it remains 3m wide. It connects to Belmont Street which is a council planned regional route, linking to Redfern and Moore Park. The route connects back into Sydney Park which has an exisiting shared path. Additional parking will be provided along Sydney Park Road, Huntley Street and Belmont Street to maintain the existing amount of on-road parking.

The Belmont Street on road bike path will also connect through to the future shared paths along the north side of Euston Road and McEvoy Street associated with the Alexandria to Moore Park Connectivity Upgrade Project, which is currently in planning phase.

Final concept design for cycle paths on Sydney Park Road and Mitchell Road are in consultation with Councils.

Refer Appendix 05 for detailed drawings of the Mitchell Road separated cycle path.

Figure 5.11 - Concept location

Figure 5.12 - Mitchell Road concept


Huntley Street
Mitchell Road
Belmont Street
Huntley Street
Sydney Park Road
3000
3100
3000
3000
LEGEND
Proposed Separated Cycle Path
Proposed Shared Path
ATN Route - Council
Parking Space Removed
Potential Parking Space

5.7 CAMPBELL STREET & BEDWIN ROAD CONNECTIONS

The Condition B50 review has identified a gap between the Campbell Street and May Street intersection and the existing on road cycle ways north of the railway line connecting to Marrickville. The Campbell Street and Unwins Bridge Road connections join Bedwin Road over the railway bridge and May Street. They are associated with road works on the local streets surrounding the St Peters Interchange. It extends Campbell Streets active transport network, across May Street into a 3m shared path bordering Camdenville Oval. This allows for a future link to Camdenville Park and to St Peters station. Locally it will connect to Enmore along Bedwin Road, which will require a new bridge for pedestrians and cyclists adjacent to the exisiting railway bridge. This provides connectivity to Sydney Steel Road, Marrickville and Newtown via Lord and Darley Street.

Refer Appendix 06 for detailed drawings of the Campbell Road and Unwins Bridge Road off road shared path.

Figure 5.13 - Concept location

Figure 5.14 - Bedwin Road & May Street concept


Darley Street
Lord Street
Beckwith Road
Camdenville Park
Future Link
May Street
Unwins Bridge Road
Campbell Street
LEGEND
Proposed Separated Cycle Path
Proposed Shared Path
Existing ATN Route - Council

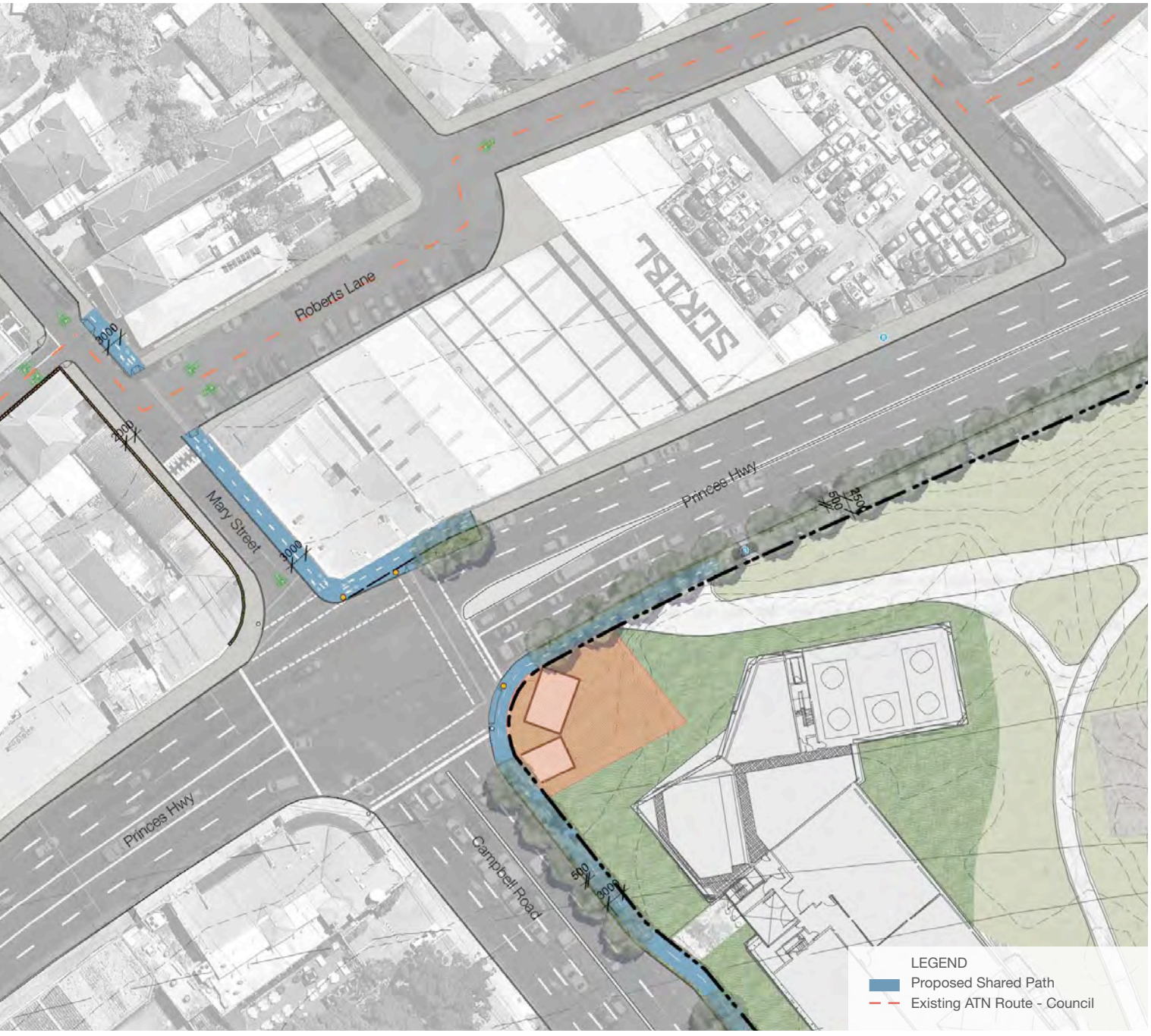
5.8 PRINCES HIGHWAY & CANAL ROAD INTERSECTION

The Condition B50 review has identified a gap between the new cycle way in the SPI area and the existing on road cycle lanes in Bakers Lane and Roberts Lane connecting to Sydenham. The Princes Highway and Canal Road Intersection links to Mary Street and existing council regional routes that run off north east along Roberts Lane and south west along Bakers Lane in St Peters. It is associated with the local road upgrades for the St Peters Interchange and consists of a 3m shared path on Princes Highway, including a crossing onto Mary Streets separated contraflow bike lane. Locally it will connect to Mascot and Newtown. Ultimately it connects to Unwins Bridge Road which is planned to be an inner Sydney regional bike route.

Refer Appendix 07 for detailed drawings of the Princes Highway and Canal Road intersection cycle paths.

Figure 5.15 - Concept location

Figure 5.16 - Princes Highway & Canal Road Intersection concept


Roberts Lane
Mary Street
Princes Hwy
Princes Hwy
Campbell Road
3000
2000
3000
2500
3000
LEGEND
Proposed Shared Path
Existing ATN Route - Council

5.9 KING STREET GATEWAY

Project Overview

Roads and Maritime Services (RMS) is developing a concept design for the King Street Gateway project. The concept design will provide positive public domain outcomes for the vibrant and diverse community of Newtown and St Peters.

The project will provide an opportunity to tackle the significant issues surrounding vehicular, bicycle and pedestrian traffic while reinstating the streets and creating dynamic pubic spaces. The concept design will also look to revitalize the existing amenity at Sydney Park and improve the landscape and urban design outcomes for this area.

The project is being developed in consultation with both City of Sydney and Inner West Council. The site is on the boundary of these two local government areas. Princess Highway and Barwon Park Road form part of the Inner West Council while Sydney Park and Sydney Park Road fall into the City of Sydney local government area.

Refer Appendix 08 for detailed drawings of the King Street Gateway.

Project Objectives

The following project objectives have been proposed for King Street Gateway:

- Improve the 'gateway' to King Street by changing the area around the entry to St Peters station and the entry to Sydney Park and the movement between these areas to provide a better pedestrian environment.
- Downgrade of Princes Highway and Sydney Park Road by limiting capacity of Princes Highway north of Campbell Street to achieve a balance for all users.
- Improve the footpath environment through widening and other measures.
- Improve the environment for "Active Transport" cyclists and pedestrians.

Figure 5.17 - Project location

Figure 5.18 - King Street Gateway

– Reduce lane widths on Princes Highway north of Campbell Street and on Sydney Park Road and increase space for pedestrians and cyclists consistent with proposed road usage and place making.

Improve at-grade pedestrian and cyclist access to Sydney Park across the Princes Highway (north of Campbell Street) and across Sydney Park Road, including amendments to ensuring these are single-leg crossings for pedestrians where appropriate. Include new mid-block crossings on Princes Highway and Sydney Park Road aligned to pedestrian and cyclist desire lines.

5.10 AIRPORT GATEWAY

The Airport Gateway is still under design. There are currently insufficient details on the Airport Gateway connection to the SPI to enable resolution of the ATN to the Airport Gateway.

The Airport Gateway will include ATN along the future Airport Gateway link. This will link the SPI with the ATN in and around the:

- Sydney Airport
- Alexandra Canal cycle path (both sides of the canal)
- Existing shared path along the southern side of the Alexandra Canal between Coward Street and the International Terminal
- A safe and connected cycle link across the Cooks River on or adjacent to the Giovanni Brunetti Bridge

As part of the SPI design, there is allowance for future pedestrian / cycle links associated with the Airport Gateway Project which will improve access for pedestrians and cyclists between SPI area and the airport. Figure 5.19 indicates the direction that the Airporty Gateway may take.

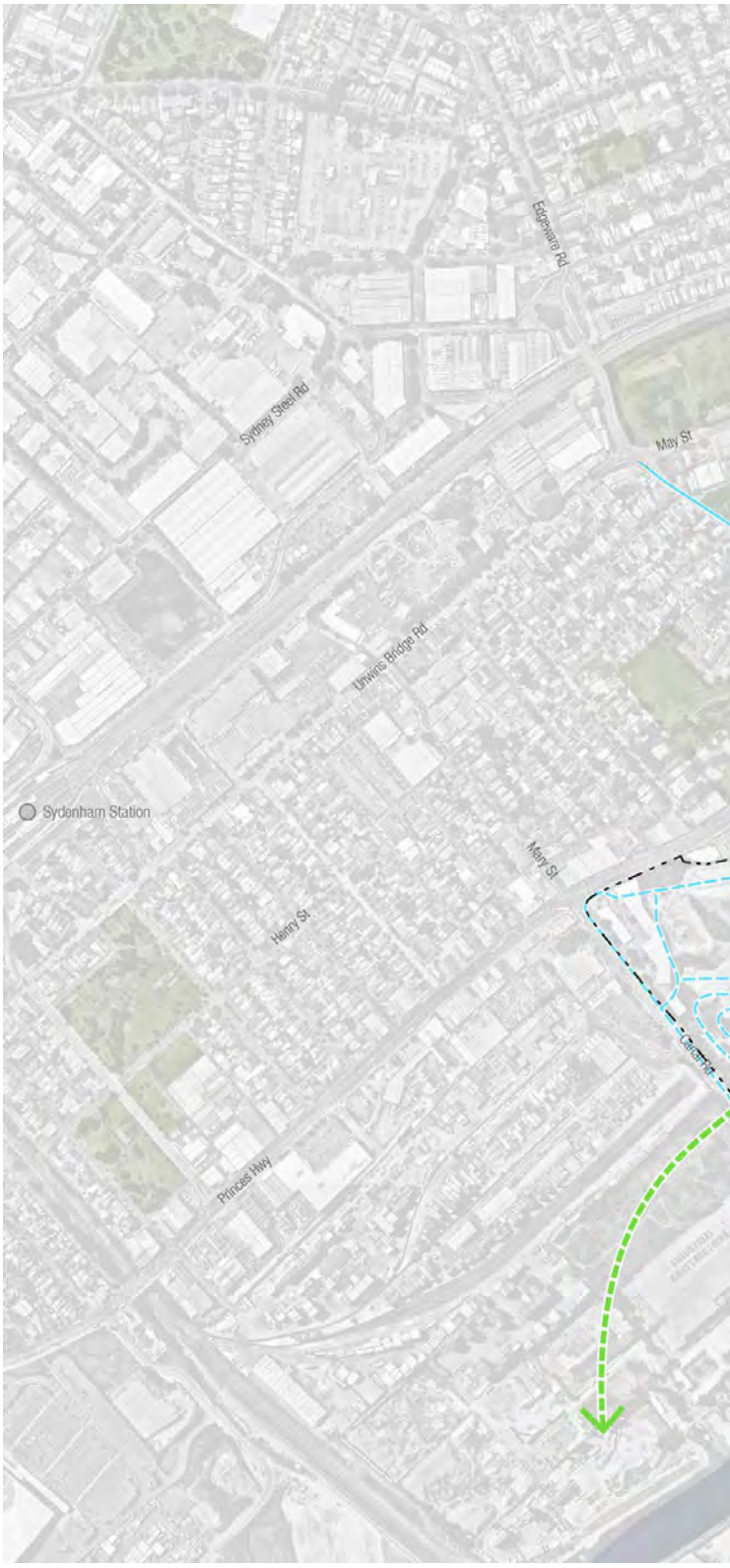


Figure 5.19 - Airport Gateway


King St
St Peters Station
Mitchell Rd
Belmont St
Maddox St
Sydney Park Rd
Camdenville Park
Sydney Park
Princes Hwy
Barwon Park Rd
Campbell St
Euston Rd
Princes Hwy
Campbell Rd
St Peters Interchange Site
Bourke Rd
Alexandra Canal
Gardeners Rd
Mascot Station
LEGEND
Airport Gateway (including cycle link) - Indicative Route
WestConnex - Proposed Separated Cycle Path
WestConnex - Proposed Shared Path

5.11 SYDENHAM STATION CONNECTION

Additional review of the existing and proposed network has identified a gap between the proposed Inner West Council Local Route 7 (St Peters to Tempe) and Sydenham Station. Sydenham Station is a significant public transport interchange with Sydenham connecting to a number of rail lines, a regional bus stop and the future Metro line. As part of the Sydenham to Bankstown Metro there is also currently proposed a regional ATN link along the Metro corridor.

Currently there is poor connectivity between councils proposed Local Route 7 which links to the St Peters Interchange and Sydenham Station. By providing this connection from Local Route 7 to Sydenham Station not only provides for better connectivity to the station but also to any future regional ATN corridor and is thus identified as an important link.

A link from the proposed Local Route 7 at George St and Henry St to Sydenham station is proposed by:

- A new on-road route along George St to Unwins Bridge Road combined with traffic calming and traffic speed reductions
- A new cycle crossing signal at the exiting signalised intersection at Unwins Bridge Road and George St which does not currently allow cyclists to cross George St
- A new route via two alternative route options
  - A. Either on-road along George St to Burrows Ave and a separated cycleway along Burrows Ave to Sydenham station or
  - B. Shared path on the north side of Unwins Bridge road to Swain St and an on-road route north bound to Burrows Ave and a contra flow lane south bound with a separatexd cycle way along Burrows Ave to Sydenham station
- A new cycle crossing signal at the existing signalised intersection at Gleeson Road and Burrows Ave
- A new on-road route east bound on Burrows Ave and a contra flow lane west bound along Burrows Ave to Unwins Bridge Road

Figure 5.20 - Concept location

Figure 5.21 - Sydenham Station Connection Option A

This route has previously been identified by Council as part of their LGA wide bike plan but has not been implemented to date.

Refer Appendix 13 for further details of the proposed route.

5.12 CANAL ROAD SHARED PATH

The B50 Planning Condition Report and the audit identified the poor condition of the existing path but recommended no further extension beyond Burrows Road due to the condition of the existing footpath and lack of suitable facilities along Canal Road crossing Alexandra Canal. Following the review of the B51 ATN report it has been identified that the proposed Canal Road shared path should be extended to the future proposed western side of Alexandra Canal path. This path is an important future regional route which links the city to the airport as well as further south to the Cooks River cycle path to Botany Bay as well as west along the Cooks River.

Currently the Alexandra Canal path is restricted in its implementation due to lack of public access to the foreshore of the Canal in a number of sections. However as the land redevelops in the future the Alexandra Canal path will link from the Airport to Huntley St. Currently City of Sydney are also undertaking planning for this route and it is identified it as an important link. Providing for a connection from the St Peters Interchange to the future Alexandra Canal has been identified as an important link.

The Canal Road Shared path is proposed to:

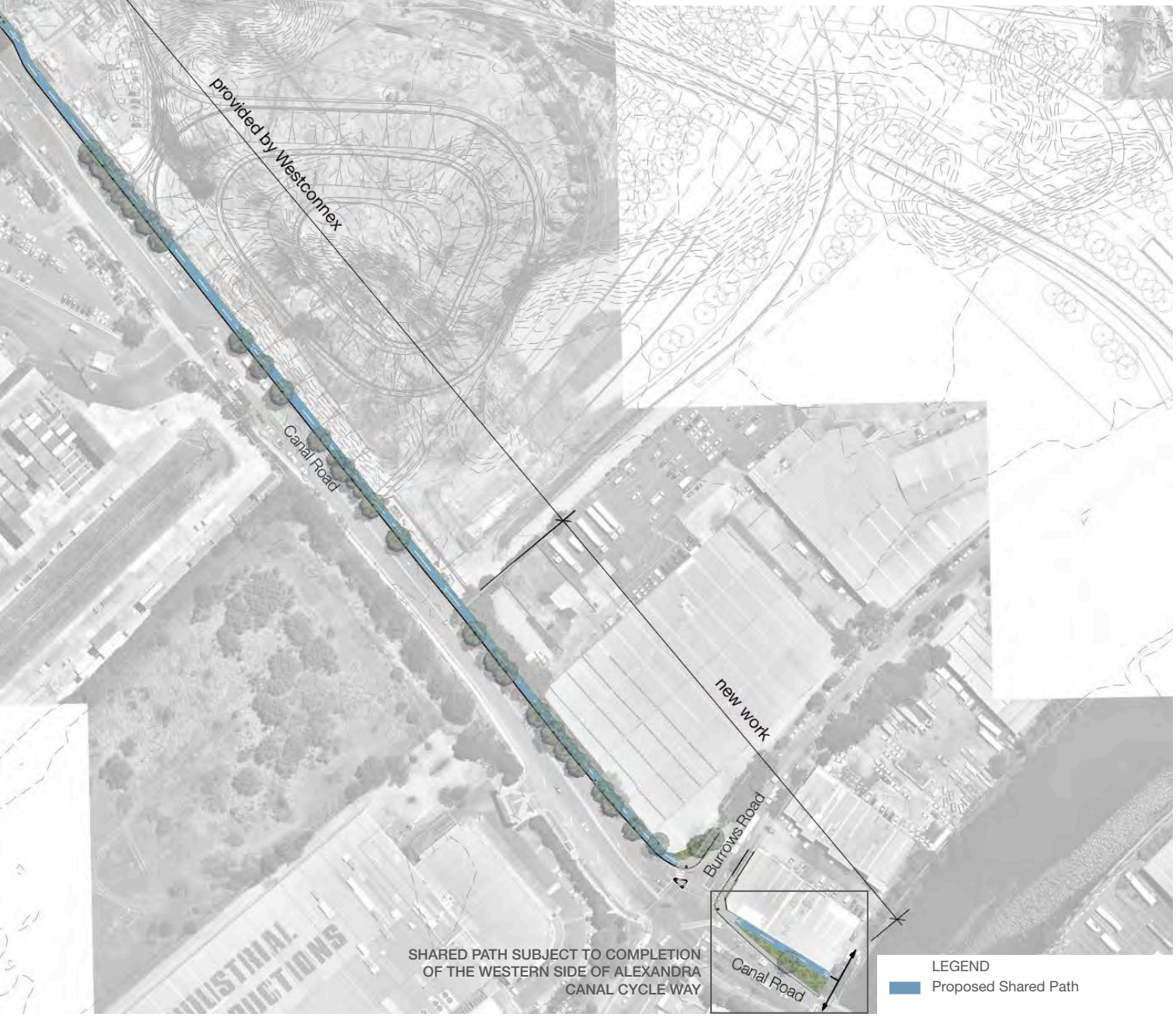
- Provide a shared path along the north of Canal Road from the interchange to Burrows Ave
- A new cycle crossing signal at the existing signalised intersection at Burrows Road and Canal Road
- Provide a future shared path connection from along Canal Road south of Burrows Road to the future Alexandra Canal shared path, This link is subject to the completion of the Alexandra Canal shared path as this link would currently not provide any connectivity at present

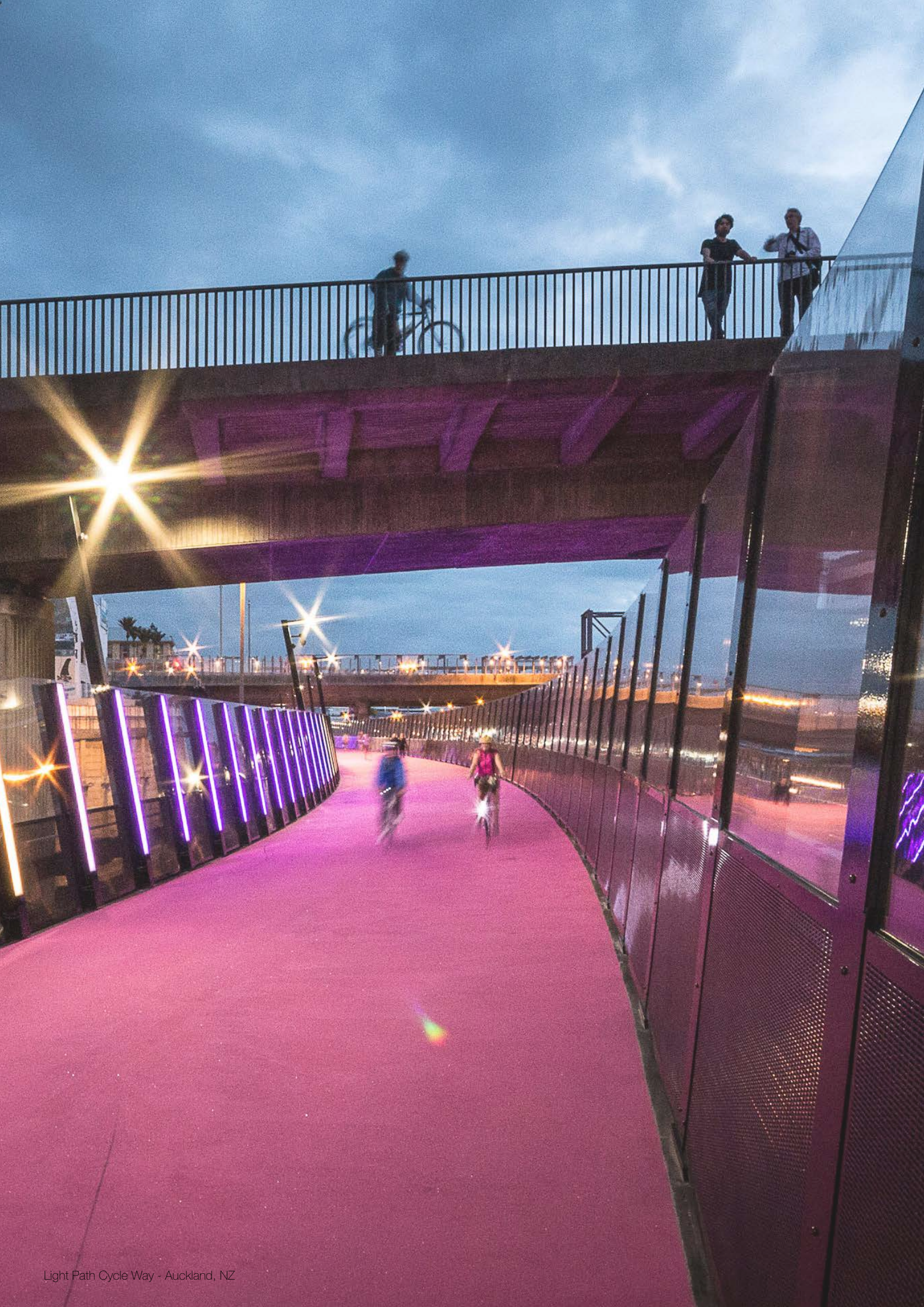
Figure 5.22 - Concept location

Figure 5.23 - Canal Road

This route provides for an important connectivity to and from the new infrastructure at the St Peters Interchange and the regional Alexandra Canal Route. It also significantly improves the condition of the existing footpath along Canal Road which is currently in poor condition and restricting use of the path at present.

Refer Appendix 14 for further details of the proposed route.





Light Path Cycle Way - Auckland, NZ

6.0 Infrastructure Details

6.1 LIGHTING

City of Sydney Functional Lighting Requirements

Exterior lighting of public spaces and streets plays a vital role in providing for a city that is accessible and safe for pedestrians, cyclists and vehicles. The following table defines the City's standard set of lighting palettes specific to cycleway applications.

City of Sydney's lighting palette standards have been adopted for this report as there was a lack of information on lighting standards available by RTA.

Street type	Description	Lighting Type*	Recommended Lighting Level**	Light Quality
City centre streets and footways	Dedicated cycle zone that may be apart of any of the street typologies requiring additional specific lighting requirements	– S1 Smartpole Range – CoS PED Pole – AusGrid Standards	– Cycleway: P2 or nominated pedestrian P level if higher	Cycleway: 3000K min Ra85
Village centres and activiy strips	Dedicated cycle zone that may be apart of any of the street typologies requiring additional specific lighting requirements	– S2 Smartpole Range – CoS PED Pole – AusGrid Standards	– Cycleway: P2	Cycleway: 3000K-4000K min Ra85
Local streets and footways	Dedicated cycle zone that may be apart of any of the street typologies requiring additional specific lighting requirements	– AusGrid Pole – City of Sydney Standard Pedestrian Pole range	– Cycleway: P2	Cycleway: 3000K min Ra85
Connecting lighting applications (pedestrian crossings)	Pedestrian crossings recognise the need for pedestrian safety and the relationship of pedestrians and vehicles. Vertical illuminance is paramount for pedestrian safety in these areas.	– AusGrid Pole Lighting range – S1 Smartpole range – S2 Smartpole range – City of Sydney Pedestrian Connecting Luminare range (floodlight)	– Local or arterial road PSL<= 60km/h: PX1 – Local or arterial road PSL<= 50km/h: PX2 – Local Road: PX3 – Refer to AS/NZS 1158.4 for further information	Pedestrian: 3000K-4000K min Ra85
Parks (village centre and local area park)	Usually surrounded by residential zones, they provide through site access to local streets or village centre streets and often include programmed activity areas. Larger parks may have distinct / recreational amenities with use by those from a wide catchment area	– City standard pedestrian pole top lighting range	– Major pathways: P2 – Minor pathways: P3 – Path edges: P5 – Activity area: P8	Pedestrian pathways and activity areas: 3000K-4000K min Ra85

Table 6.1 - Lighting palette standards adopted from CoS Public Domain Design Codes - Sydney Lighting

* For luminare type performance specifications and information, refer to Part 3. Section 3.5 Standard Lighting Palette in CoS Public Domain Design Codes - Sydney Lighting.
** Refer to AS1158 for lighting category requirements. Specific lighting levels are subject to evaluation of specific site conditions, risk of crime and traffic levels and are to be confirmed in consultation with the City of Sydney. In areas of CCTV locations, 4 lux vertical illumination is to be provided. Consult with City of Sydney for the latest requirements.

6.2 SAFETY AND SECURITY

As noted in the NSW Bicycle Guidelines (RTA, 2005), safety is a key design principle for the bicycle network transport system and is broken down in table 6.2. When designing the landscape for off road paths, public safety issues should always be considered. To create an open, easily supervised environment that discourages anti-social behaviour, planting should be carefully placed so as not to constrain or hide the path from public view. Landscape that opens up the path to views of the surrounding locality and creates good sightlines for riders and walkers is more likely to diminish community concerns that the path may be unsafe or may harbour unsafe behaviour.

CPTED

Crime Prevention Through Environmental Design (CPTED) is a way in which criminal behaviour is deterred through environmental design. CPTED strategies depend on the ability to influence the offender decisions to carry out criminal acts resulting in a safer and more enjoyable experience for the user. Natural surveillance is one of the key strategies for the built environment which involves strategic placement of physical features that maximise visibility and sight lines of a space that ultimately reduce the users exposure to criminal acts.

Barrier fencing and off road paths

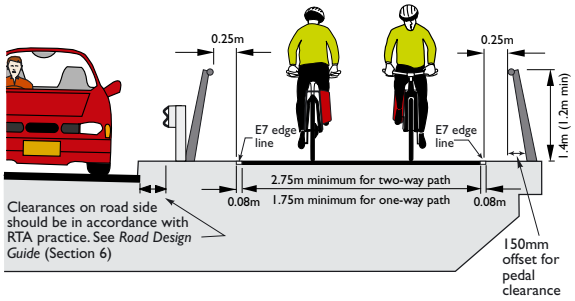
Barrier fencing and railings should be erected when a separation is needed between cyclists and hazards such as precipitous edges, high speed roadways, drains, culverts, bridges and railway infrastructure. Figure 6.1 shows the recommended barrier fencing clearances for off road paths.

Principle	Criteria	Design Considerations Regional Routes	Design Considerations Local Routes	Design Considerations Mixed Traffic Streets
Safety	Minimum risk of accidents on routes Minimum risk of conflict with car traffic Minimum risk of unsafe infrastructure	Monitor use of facility and investigate any links between accidents and design	Monitor use of facility and investigate any links between accidents and design	Monitor use of facility and investigateany links between accidents and design

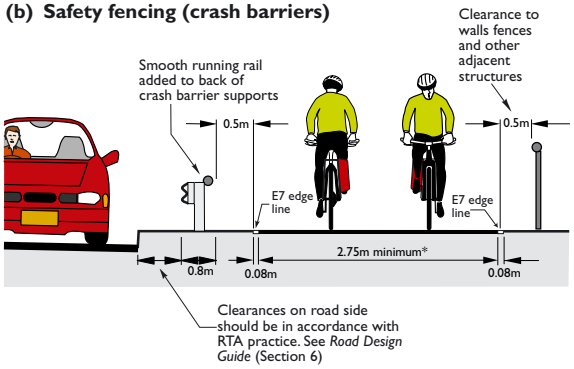
Table 6.2 - Key design principle - Safety (NSW Bicycle Guidelines, Austroads Guides)

(a) Railings

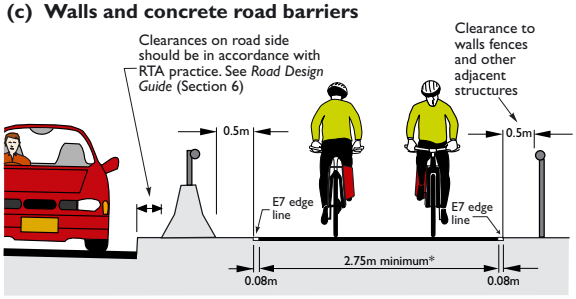
For greater detail on railings for paths on bridges and other structures refer to *Austroads - Part 14* (Section 7.6.2)



(b) Safety fencing (crash barriers)



(c) Walls and concrete road barriers



Notes

*Widths given above are for two-way paths constrained by fences and other barriers on both sides. Minimum width for a one-way path with fencing on both sides would be 1.75m.

If path width is constrained and at minimum width path narrowing signage should be erected in advance of narrow section and reflective tape fitted to side fence vertical supports.

Figure 6.1 - Barier fencing clearances for off road paths (NSW Bicycle Guidelines, Austroads Guides)

6.3 STANDARD COMPLIANCE

6.3.1 Campbell Road Between May Street & Bourke Road

Review of the proposed designs for the gap projects to confirm compliance against standards and guidelines.

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Separated cycle lane (two way)	Bicycle lane width (m)	2.0 - 3.5		✓	
	Separation strip (m)	0.4 - 1.0	Separation strips need to be broken at regular intervals to permit road drainage. Separation strips can achieve a width of 0.4m when there is no adjacent car parking.	✓	
	Linemarking	Pavement symbols: – PS-3 Pavement arrows: – PA-I Linemarking: – E7 – S4/S5	Symbols and arrows should be placed at 75m intervals and adjacent to any adjacent to intersecting paths / streets to indicate travel direction. Solid edgelines can be used in areas of high bicycle and pedestrian traffic to precisely define the riding area.	To be determined in detailed design	
	Coloured pavement	Green (RTA)	Green coloured pavement must be used when a separated cycle lane passes side streets and driveways.	✓	
	Entry / exit ramps	1: 10 slope (max)	The exit ramp from the road should be oriented to enable the cyclist to leave the road at a speed appropriate to the abutting development and the level of pedestrian usage of the path.	N/A	
	Lighting	N/A	New street and path lighting to be provided in accordance with City of Sydney lighting standards. Detail design for lighting in progress.		

Table 6.3 - Separated cycle lane standards (NSW bicycle guidelines, Austroads guides)

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Shared path (two way)	Bicycle lane width (m)	2.0 - 4.0		✓	
	Separation strip (m)	1.0	When a shared path features no adjacent car parking, a separation width of 0.4m can be achieved.	✓	
	Linemarking	Pavement symbols: – PS-3 – PS-4 Pavement arrows: – PA-I Linemarking: – S3	Symbols and arrows are used in an advisory capacity at 75m (200m max) intervals or adjacent to intersecting paths / streets to indicate travel direction. Solid edge lines can be used in areas of high bicycle and pedestrian traffic to precisely define the riding area.	To be determined in detailed design	
	Coloured pavement	N/A		N/A	
	Entry / exit ramps	1: 10 slope (max)	The exit ramp from the road should be oriented to enable the cyclist to leave the road at a speed appropriate to the abutting development and the level of pedestrian usage of the path.	N/A	
	Lighting	N/A	New street and path lighting to be provided in accordance with City of Sydney lighting standards. Detail design for lighting in progress.		

Table 6.4 - Shared path cycle lane standards (NSW bicycle guidelines, Austroads guides)

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Crossing at traffic signal (off road bicycle path)	Bicycle traffic signal activation button	Located at holding lines.	Careful consideration must be made on waiting times and the coordination of crossing signals. The provision of hand rails to assist cyclists to remain mounted whilst waiting for a green signal should be considered.	To be determined in detailed design	
	Bicycle signal lamp	Visible from holding line		To be determined in detailed design	
	Coloured pavement		At intersections where both rider and walker traffic volumes are high, it is advisable to provide different pavement surface colouring or texture to mark the pedestrian crossing area.	✓	
	Linemarking		The width of the marked crossing for separated cycle paths should match the width of the paths feeding the crossing.	✓	
	Head start - when on road and not separated (m)	2.0 - 4.0 0.2 setback from crossing linemarking	The required length of the head start area varies depending on the number of bicycles that need to be stored.	N/A	
	Crossing width	Varies	The width of the marked crossing for separated cycle paths is to match the width of the paths feeding into the crossing.	✓	

Table 6.5 - Off road bicycle path crossing at traffic signal standards (NSW bicycle guidelines, Austroads guides)

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6.3.2 St Peters Interchange Cycle Path

Review of the proposed designs for the gap projects to confirm compliance against standards and guidelines.

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Shared path off road and not within road reserve (30km/h design speed)	Operating speed	30 km/h		N/A	
	Bicycle path width (m)	1.5 (one way) 2.5 (two way		✓	
	Shared path width (m)	2.5 - 4.0		✓	
	Horizontal curvature	25.0 path radius (min)		✓	
	Clearances (walls and fences)	0.5 - 1.0		✓	
	Gradient	5% (max)		N/A	
	Sight and stopping distance	35.0 - 40.0m 8.0m on 25.0m radius curves		N/A	
	Super elevation and crossfall	2% for minimum radius of 25.0m		N/A	
	Linemarking	Pavement symbols: – PS-3 Pavement arrows: – PA-I Linemarking: – E7 – S4/S5	Symbols and arrows should be placed at 75m intervals and adjacent to any adjacent to intersecting paths / streets to indicate travel direction. Solid edgelines can be used in areas of high bicycle and pedestrian traffic to precisely define the riding area.	To be determined in detailed design	
	Coloured pavement	Green (RTA)	Green coloured pavement must be used when a separated cycle lane passes side streets and driveways.	N/A	
	Entry / exit ramps	1: 10 slope (max)	The exit ramp from the road should be oriented to enable the cyclist to leave the road at a speed appropriate to the abutting development and the level of pedestrian usage of the path.	N/A	
	Lighting	City standard pedestrian pole top lighting range	New street and path lighting to be provided in accordance with City of Sydney lighting standards. Detail design for lighting in progress.		

Table 6.6 - Shared path cycle lane standards (NSW bicycle guidelines, Austroads guides)

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Separated cycle lane (two way)	Bicycle lane width (m)	2.0 - 3.5		located where width of open area allows	
	Separation strip (m)	0.4 - 1.0	Separation strips need to be broken at regular intervals to permit road drainage. Separation strips can achieve a width of 0.4m when there is no adjacent car parking.	N/A	
	Linemarking	Pavement symbols: – PS-3 Pavement arrows: – PA-I Linemarking: – E7 – S4/S5	Symbols and arrows should be placed at 75m intervals and adjacent to any adjacent to intersecting paths / streets to indicate travel direction. Solid edgelines can be used in areas of high bicycle and pedestrian traffic to precisely define the riding area.	To be determined in detailed design	
	Coloured pavement	Green (RTA)	Green coloured pavement must be used when a separated cycle lane passes side streets and driveways.	N/A	
	Entry / exit ramps	1: 10 slope (max)	The exit ramp from the road should be oriented to enable the cyclist to leave the road at a speed appropriate to the abutting development and the level of pedestrian usage of the path.	N/A	
	Lighting	N/A	New street and path lighting to be provided in accordance with City of Sydney lighting standards. Detail design for lighting in progress.		

Table 6.7 - Separated cycle lane standards (NSW bicycle guidelines, Austroads guides)

6.3.3 M5 East Linear Park Shared Path

Review of the proposed designs for the gap projects to confirm compliance against standards and guidelines.

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Shared path off road and not within road reserve (30km/h design speed)	Operating speed	30 km/h		N/A	
	Bicycle path width (m)	1.5 (one way) 2.5 (two way)		✓	
	Shared path width (m)	2.5 - 4.0		✓	
	Horizontal curvature	25.0 path radius (min)		✓	
	Clearances (walls and fences)	0.5 - 1.0		✓	
	Gradient	5% (max)		N/A	
	Sight and stopping distance	35.0 - 40.0m 8.0m on 25.0m radius curves		N/A	
	Super elevation and crossfall	2% for minimum radius of 25.0m		N/A	
	Linemarking	Pavement symbols: – PS-3 Pavement arrows: – PA-I Linemarking: – E7 – S4/S5	Symbols and arrows should be placed at 75m intervals and adjacent to any adjacent to intersecting paths / streets to indicate travel direction. Solid edgelines can be used in areas of high bicycle and pedestrian traffic to precisely define the riding area.	To be determined in detailed design	
	Coloured pavement	Green (RTA)	Green coloured pavement must be used when a separated cycle lane passes side streets and driveways.	N/A	
	Entry / exit ramps	1: 10 slope (max)	The exit ramp from the road should be oriented to enable the cyclist to leave the road at a speed appropriate to the abutting development and the level of pedestrian usage of the path.	N/A	
	Lighting	City standard pedestrian pole top lighting range	N/A	Existing / relocated lighting	

Table 6.8 - Shared path cycle lane standards (NSW bicycle guidelines, Austroads guides)

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Crossing at traffic signal (shared path)	Bicycle traffic signal activation button	Located at holding lines.	Careful consideration must be made on waiting times and the coordination of crossing signals. The provision of hand rails to assist cyclists to remain mounted whilst waiting for a green signal should be considered.	✓	
	Bicycle signal lamp	Visible from holding line		✓	
	Coloured pavement		At intersections where both rider and walker traffic volumes are high, it is advisable to provide different pavement surface colouring or texture to mark the pedestrian crossing area.	✓	
	Linemarking		The width of the marked crossing for separated cycle paths should match the width of the paths feeding the crossing.	✓	

Table 6.9 - Shared path crossing at traffic signal standards (NSW bicycle guidelines, Austroads guides)

6.3.4 St Peters Interchange Recreation Area

Review of the proposed designs for the gap projects to confirm compliance against standards and guidelines.

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Shared path off road and not within road reserve (30km/h design speed)	Operating speed	30 km/h		N/A	
	Bicycle path width (m)	1.5 (one way) 2.5 (two way		✓	
	Shared path width (m)	2.5 - 4.0		✓	
	Horizontal curvature	25.0 path radius (min)		✓	
	Clearances (walls and fences)	0.5 - 1.0		✓	
	Gradient	5% (max)		N/A	
	Sight and stopping distance	35.0 - 40.0m 8.0m on 25.0m radius curves		N/A	
	Super elevation and crossfall	2% for minimum radius of 25.0m		N/A	
	Linemarking	Pavement symbols: – PS-3 Pavement arrows: – PA-I Linemarking: – E7 – S4/S5	Symbols and arrows should be placed at 75m intervals and adjacent to any adjacent to intersecting paths / streets to indicate travel direction. Solid edgelines can be used in areas of high bicycle and pedestrian traffic to precisely define the riding area.	To be determined in detailed design	
	Coloured pavement	Green (RTA)	Green coloured pavement must be used when a separated cycle lane passes side streets and driveways.	N/A	
	Entry / exit ramps	1: 10 slope (max)	The exit ramp from the road should be oriented to enable the cyclist to leave the road at a speed appropriate to the abutting development and the level of pedestrian usage of the path.	N/A	
	Lighting	City standard pedestrian pole top lighting range	N/A	To be determined in detailed design	

Table 6.10 - Shared path cycle lane standards (NSW bicycle guidelines, Austroads guides)

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6.3.5 Sydney Park - Alexandria - Moore Park

Review of the proposed designs for the gap projects to confirm compliance against standards and guidelines.

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Separated cycle lane (two way)	Bicycle lane width (m)	2.0 - 3.5		✓	
	Separation strip (m)	0.4 - 1.0	Separation strips need to be broken at regular intervals to permit road drainage. Separation strips can achieve a width of 0.4m when there is no adjacent car parking.	✓	
	Linemarking	Pavement symbols: – PS-3 Pavement arrows: – PA-I Linemarking: – E7 – S4/S5	Symbols and arrows should be placed at 75m intervals and adjacent to any adjacent to intersecting paths / streets to indicate travel direction. Solid edgelines can be used in areas of high bicycle and pedestrian traffic to precisely define the riding area.	To be determined in detailed design	
	Coloured pavement	Green (RTA)	Green coloured pavement must be used when a separated cycle lane passes side streets and driveways.	✓	
	Entry / exit ramps	1: 10 slope (max)	The exit ramp from the road should be oriented to enable the cyclist to leave the road at a speed appropriate to the abutting development and the level of pedestrian usage of the path.	N/A	
	Lighting	N/A	N/A	To be determined in detailed design	

Table 6.11 - Separated cycle lane standards (NSW bicycle guidelines, Austroads guides)

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Shared path (two way)	Bicycle lane width (m)	2.0 - 4.0		✓	
	Separation strip (m)	1.0	When a shared path features no adjacent car parking, a separation width of 0.4m can be achieved.	✓	
	Linemarking	Pavement symbols: – PS-3 – PS-4 Pavement arrows: – PA-I Linemarking: – S3	Symbols and arrows are used in an advisory capacity at 75m (200m max) intervals or adjacent to intersecting paths / streets to indicate travel direction. Solid edge lines can be used in areas of high bicycle and pedestrian traffic to precisely define the riding area.	To be determined in detailed design	
	Coloured pavement	N/A		N/A	
	Entry / exit ramps	1: 10 slope (max)	The exit ramp from the road should be oriented to enable the cyclist to leave the road at a speed appropriate to the abutting development and the level of pedestrian usage of the path.	N/A	
	Lighitng	N/A	N/A	To be determined in detailed design	

Table 6.12 - Shared path (two way) standards (NSW bicycle guidelines, Austroads guides)

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Crossing on platform two way off road bicycle path intersection	Bend out radius (m)	30.0	Bend out of the off road path should be smooth with a recommended curve radius of 30m. Smaller path curve radius is not recommended as these tight curves can introduce difficult manoevers for riders at a point where their attention should be fixed on the crossing and approaching vehicles.	✓	
	Bent out crossing distance from road way (m)	5.0 - 15.0	The principal reason for bending out is to allow storage space for turning vehicles entering or leaving the side road. For this reason, the minimum distance between the bicycle path and the parallel roadway should be 5m.	✓	
	Linemarking	Pavement symbols: – PS-3 Pavement arrows: – PA-I	Symbols and arrows should be placed at either side of the crossing to indicate travel direction.	To be determined in detailed design	
	Separation strip (m)	5.0 - 15.0	Area between bicycle path and the roadway must be kept clear of any obstacles which hamper visibility	✓	

Table 6.13 - Off road bicycle path intersection crossing on platform standards (NSW bicycle guidelines, Austroads guides)

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Crossing at traffic signal (off road bicycle path)	Bicycle traffic signal activation button	Located at holding lines.	Careful consideration must be made on waiting times and the coordination of crossing signals. The provision of hand rails to assist cyclists to remain mounted whilst waiting for a green signal should be considered.	✓	
	Bicycle signal lamp	Visible from holding line		✓	
	Coloured pavement		At intersections where both rider and walker traffic volumes are high, it is advisable to provide different pavement surface colouring or texture to mark the pedestrian crossing area.	✓	
	Linemarking		The width of the marked crossing for separated cycle paths should match the width of the paths feeding the crossing.	✓	
	Head start - when on road and not separated (m)	2.0 - 4.0 0.2 setback from crossing linemarking	The required length of the head start area varies depending on the number of bicycles that need to be stored.	N/A	
	Crossing width	Varies	The width of the marked crossing for separated cycle paths is to match the width of the paths feeding into the crossing.	✓	

Table 6.14 - Off road bicycle path crossing at traffic signal standards (NSW bicycle guidelines, Austroads guides)

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Crossing at traffic signal (shared path)	Bicycle traffic signal activation button	Located at holding lines.	Careful consideration must be made on waiting times and the coordination of crossing signals. The provision of hand rails to assist cyclists to remain mounted whilst waiting for a green signal should be considered.	✓	
	Bicycle signal lamp	Visible from holding line		✓	
	Coloured pavement		At intersections where both rider and walker traffic volumes are high, it is advisable to provide different pavement surface colouring or texture to mark the pedestrian crossing area.	✓	
	Linemarking		The width of the marked crossing for separated cycle paths should match the width of the paths feeding the crossing.	✓	

Table 6.15 - Shared path crossing at traffic signal standards (NSW bicycle guidelines, Austroads guides)

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6.3.6 Campbell Street & Bedwin Road Connections

Review of the proposed designs for the gap projects to confirm compliance against standards and guidelines.

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Separated cycle lane (two way)	Bicycle lane width (m)	2.0 - 3.5	Refer figure 3.2	✓	
	Separation strip (m)	0.4 - 1.0	Separation strips need to be broken at regular intervals to permit road drainage. Separation strips can achieve a width of 0.4m when there is no adjacent car parking.	✓	
	Linemarking	Pavement symbols: – PS-3 Pavement arrows: – PA-I Linemarking: – E7 – S4/S5	Symbols and arrows should be placed at 75m intervals and adjacent to any adjacent to intersecting paths / streets to indicate travel direction. Solid edgelines can be used in areas of high bicycle and pedestrian traffic to precisely define the riding area.	To be determined in detailed design	
	Coloured pavement	Green (RTA)	Green coloured pavement must be used when a separated cycle lane passes side streets and driveways.	✓	
	Entry / exit ramps	1: 10 slope (max)	The exit ramp from the road should be oriented to enable the cyclist to leave the road at a speed appropriate to the abutting development and the level of pedestrian usage of the path.	N/A	
	Lighting	N/A	N/A	To be determined in detailed design	

Table 6.16 - Separated cycle lane standards (NSW bicycle guidelines, Austroads guides)

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Crossing at traffic signal (off road bicycle path)	Bicycle traffic signal activation button	Located at holding lines.	Careful consideration must be made on waiting times and the coordination of crossing signals. The provision of hand rails to assist cyclists to remain mounted whilst waiting for a green signal should be considered.	✓	
	Bicycle signal lamp	Visible from holding line		✓	
	Coloured pavement		At intersections where both rider and walker traffic volumes are high, it is advisable to provide different pavement surface colouring or texture to mark the pedestrian crossing area.	✓	
	Linemarking		The width of the marked crossing for separated cycle paths should match the width of the paths feeding the crossing.	✓	
	Head start - when on road and not separated (m)	2.0 - 4.0 0.2 setback from crossing linemarking	The required length of the head start area varies depending on the number of bicycles that need to be stored.	N/A	

Table 6.17 - Off road bicycle path crossing at traffic signal standards (NSW bicycle guidelines, Austroads guides)

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Crossing at traffic signal (shared path)	Bicycle traffic signal activation button	Located at holding lines.	Careful consideration must be made on waiting times and the coordination of crossing signals. The provision of hand rails to assist cyclists to remain mounted whilst waiting for a green signal should be considered.	✓	
	Bicycle signal lamp	Visible from holding line		✓	
	Coloured pavement		At intersections where both rider and walker traffic volumes are high, it is advisable to provide different pavement surface colouring or texture to mark the pedestrian crossing area.	✓	
	Linemarking		The width of the marked crossing for separated cycle paths should match the width of the paths feeding the crossing.	✓	

Table 6.18 - Shared path crossing at traffic signal standards (NSW bicycle guidelines, Austroads guides)

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6.3.7 Princes Highway & Canal Road Intersection

Review of the proposed designs for the gap projects to confirm compliance against standards and guidelines.

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Shared path (two way)	Bicycle lane width (m)	2.0 - 4.0		✓	
	Separation strip (m)	1.0	When a shared path features no adjacent car parking, a separation width of 0.4m can be achieved.	✓	
	Linemarking	Pavement symbols: – PS-3 – PS-4 Pavement arrows: – PA-I Linemarking: – S3	Symbols and arrows are used in an advisory capacity at 75m (200m max) intervals or adjacent to intersecting paths / streets to indicate travel direction. Solid edge lines can be used in areas of high bicycle and pedestrian traffic to precisely define the riding area.	To be determined in detailed design	
	Coloured pavement	N/A		N/A	
	Entry / exit ramps	1: 10 slope (max)	The exit ramp from the road should be oriented to enable the cyclist to leave the road at a speed appropriate to the abutting development and the level of pedestrian usage of the path.	N/A	
	Lighting	N/A	N/A	To be determined in detailed design	

Table 6.19 - Shared path (two way) standards (NSW bicycle guidelines, Austroads guides)

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Crossing at traffic signal (off road bicycle path)	Bicycle traffic signal activation button	Located at holding lines.	Careful consideration must be made on waiting times and the coordination of crossing signals. The provision of hand rails to assist cyclists to remain mounted whilst waiting for a green signal should be considered.	✓	
	Bicycle signal lamp	Visible from holding line		✓	
	Coloured pavement		At intersections where both rider and walker traffic volumes are high, it is advisable to provide different pavement surface colouring or texture to mark the pedestrian crossing area.	✓	
	Linemarking		The width of the marked crossing for separated cycle paths should match the width of the paths feeding the crossing.	✓	
	Head start - when on road and not separated (m)	2.0 - 4.0 0.2 setback from crossing linemarking	The required length of the head start area varies depending on the number of bicycles that need to be stored.	N/A	

Table 6.20 - Off road bicycle path crossing at traffic signal standards (NSW bicycle guidelines, Austroads guides)

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Crossing at traffic signal (shared path)	Bicycle traffic signal activation button	Located at holding lines.	Careful consideration must be made on waiting times and the coordination of crossing signals. The provision of hand rails to assist cyclists to remain mounted whilst waiting for a green signal should be considered. Refer figure 3.5	✓	
	Bicycle signal lamp	Visible from holding line		✓	
	Coloured pavement		At intersections where both rider and walker traffic volumes are high, it is advisable to provide different pavement surface colouring or texture to mark the pedestrian crossing area.	✓	
	Linemarking		The width of the marked crossing for separated cycle paths should match the width of the paths feeding the crossing. 3.1	✓	

Table 6.21 - Shared path crossing at traffic signal standards (NSW bicycle guidelines, Austroads guides)

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6.3.8 King Street Gateway

Review of the proposed designs for the gap projects to confirm compliance against standards and guidelines.

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Separated cycle lane (two way)	Bicycle lane width (m)	2.0 - 3.5		✓	
	Separation strip (m)	0.4 - 1.0	Separation strips need to be broken at regular intervals to permit road drainage. Separation strips can achieve a width of 0.4m when there is no adjacent car parking.	✓	
	Linemarking	Pavement symbols: – PS-3 Pavement arrows: – PA-I Linemarking: – E7 – S4/S5	Symbols and arrows should be placed at 75m intervals and adjacent to any adjacent to intersecting paths / streets to indicate travel direction. Solid edgelines can be used in areas of high bicycle and pedestrian traffic to precisely define the riding area. Refer figure 3.1	To be determined in detailed design	
	Coloured pavement	Green (RTA)	Green coloured pavement must be used when a separated cycle lane passes side streets and driveways.	✓	
	Entry / exit ramps	1: 10 slope (max)	The exit ramp from the road should be oriented to enable the cyclist to leave the road at a speed appropriate to the abutting development and the level of pedestrian usage of the path. Refer figure 3.8	N/A	
	Lighting	N/A	N/A	To be determined in detailed design	

Table 6.22 - Separated cycle lane standards (NSW bicycle guidelines, Austroads guides)

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Shared path (two way)	Bicycle lane width (m)	2.0 - 4.0		✓	
	Separation strip (m)	1.0	When a shared path features no adjacent car parking, a separation width of 0.4m can be achieved.	✓	
	Linemarking	Pavement symbols: – PS-3 – PS-4 Pavement arrows: – PA-l Linemarking: – S3	Symbols and arrows are used in an advisory capacity at 75m (200m max) intervals or adjacent to intersecting paths / streets to indicate travel direction. Solid edge lines can be used in areas of high bicycle and pedestrian traffic to precisely define the riding area. Refer figure 3.1	To be determined in detailed design	
	Coloured pavement	N/A		N/A	
	Entry / exit ramps	1: 10 slope (max)	The exit ramp from the road should be oriented to enable the cyclist to leave the road at a speed appropriate to the abutting development and the level of pedestrian usage of the path. Refer figure 3.8	N/A	
	Lighting	N/A	N/A	To be determined in detailed design	

Table 6.23 - Shared path (two way) standards (NSW bicycle guidelines, Austroads guides)

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Crossing at traffic signal (off road bicycle path)	Bicycle traffic signal activation button	Located at holding lines.	Careful consideration must be made on waiting times and the coordination of crossing signals. The provision of hand rails to assist cyclists to remain mounted whilst waiting for a green signal should be considered.	To be determined in detailed design	
	Bicycle signal lamp	Visible from holding line		To be determined in detailed design	
	Coloured pavement		At intersections where both rider and walker traffic volumes are high, it is advisable to provide different pavement surface colouring or texture to mark the pedestrian crossing area.	✓	
	Linemarking		The width of the marked crossing for separated cycle paths should match the width of the paths feeding the crossing. Refer figure 3.1	✓	
	Head start - when on road and not separated (m)	2.0 - 4.0 0.2 setback from crossing linemarking	The required length of the head start area varies depending on the number of bicycles that need to be stored. Refer figure 3.9	N/A	

Table 6.24 - Off road bicycle path crossing at traffic signal standards (NSW bicycle guidelines, Austroads guides)

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Crossing at traffic signal (shared path)	Bicycle traffic signal activation button	Located at holding lines.	Careful consideration must be made on waiting times and the coordination of crossing signals. The provision of hand rails to assist cyclists to remain mounted whilst waiting for a green signal should be considered. Refer figure 3.5	To be determined in detailed design	
	Bicycle signal lamp	Visible from holding line		To be determined in detailed design	
	Coloured pavement		At intersections where both rider and walker traffic volumes are high, it is advisable to provide different pavement surface colouring or texture to mark the pedestrian crossing area.	✓	
	Linemarking		The width of the marked crossing for separated cycle paths should match the width of the paths feeding the crossing. 3.1	✓	

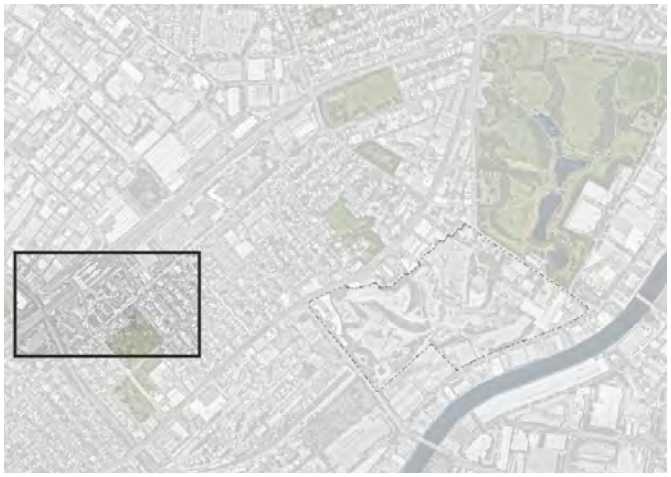
Table 6.25 - Shared path crossing at traffic signal standards (NSW bicycle guidelines, Austroads guides)

6.3.9 Sydenham Station Connection

Review of the proposed designs for the gap projects to confirm compliance against standards and guidelines.

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Contraflow	Bicycle lane width (m)	1.4 - 2.0	Refer figure 3.4	✓	
	Separation strip (m)	0.4 - 1.0	Separation strips need to be broken at regular intervals to permit road drainage. Separation strips are not needed in narrow streets and have less than 3,000 vehicles per day.	✓	
	Linemarking	Pavement symbols: – PS-2 Pavement arrows: – PA-I Linemarking: – L5 (white)	Symbols and arrows should be placed at 75m intervals and adjacent to any adjacent to intersecting paths / streets to indicate travel direction. The L5 lane lines should be replaced with C4 bicycle lane continuity lines at minor side streets and exits. Refer figure 3.1	✓ ✓ ✓	
	Coloured pavement	Green (RTA)	Green coloured pavement must be used when a contra-flow lane passes side streets and driveways.	✓	
	Entry / exit ramps	1: 10 slope (max)	The exit ramp from the road should be oriented to enable the cyclist to leave the road at a speed appropriate to the abutting development and the level of pedestrian usage of the path. Refer figure 3.8	N/A	
	Lighting	N/A	N/A	To be determined in detailed design	

Table 6.26 - Contraflow cycle lane standards (NSW bicycle guidelines, Austroads guides)



Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Shared path (two way)	Bicycle lane width (m)	2.0 - 4.0		✓	
	Separation strip (m)	1.0	When a shared path features no adjacent car parking, a separation width of 0.4m can be achieved.	✓	
	Linemarking	Pavement symbols: – PS-3 – PS-4 Pavement arrows: – PA-l Linemarking: – S3	Symbols and arrows are used in an advisory capacity at 75m (200m max) intervals or adjacent to intersecting paths / streets to indicate travel direction. Solid edge lines can be used in areas of high bicycle and pedestrian traffic to precisely define the riding area. Refer figure 3.1	To be determined in detailed design	
	Coloured pavement	N/A		N/A	
	Entry / exit ramps	1: 10 slope (max)	The exit ramp from the road should be oriented to enable the cyclist to leave the road at a speed appropriate to the abutting development and the level of pedestrian usage of the path. Refer figure 3.8	N/A	
	Lighting	N/A	N/A	To be determined in detailed design	

Table 6.27 - Shared path (two way) standards (NSW bicycle guidelines, Austroads guides)

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Separated cycle lane (two way)	Bicycle lane width (m)	2.0 - 3.5		✓	
	Separation strip (m)	0.4 - 1.0	Separation strips need to be broken at regular intervals to permit road drainage. Separation strips can achieve a width of 0.4m when there is no adjacent car parking.	✓	
	Linemarking	Pavement symbols: – PS-3 Pavement arrows: – PA-I Linemarking: – E7 – S4/S5	Symbols and arrows should be placed at 75m intervals and adjacent to any adjacent to intersecting paths / streets to indicate travel direction. Solid edgelines can be used in areas of high bicycle and pedestrian traffic to precisely define the riding area. Refer figure 3.1	To be determined in detailed design	
	Coloured pavement	Green (RTA)	Green coloured pavement must be used when a separated cycle lane passes side streets and driveways.	✓	
	Entry / exit ramps	1: 10 slope (max)	The exit ramp from the road should be oriented to enable the cyclist to leave the road at a speed appropriate to the abutting development and the level of pedestrian usage of the path. Refer figure 3.8	N/A	
	Lighting	N/A	N/A	To be determined in detailed design	

Table 6.28 - Separated cycle lane standards (NSW bicycle guidelines, Austroads guides)

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Crossing at traffic signal (off road bicycle path)	Bicycle traffic signal activation button	Located at holding lines.	Careful consideration must be made on waiting times and the coordination of crossing signals. The provision of hand rails to assist cyclists to remain mounted whilst waiting for a green signal should be considered.	To be determined in detailed design	
	Bicycle signal lamp	Visible from holding line		To be determined in detailed design	
	Coloured pavement		At intersections where both rider and walker traffic volumes are high, it is advisable to provide different pavement surface colouring or texture to mark the pedestrian crossing area.	✓	
	Linemarking		The width of the marked crossing for separated cycle paths should match the width of the paths feeding the crossing. Refer figure 3.1	✓	
	Head start - when on road and not separated (m)	2.0 - 4.0 0.2 setback from crossing linemarking	The required length of the head start area varies depending on the number of bicycles that need to be stored. Refer figure 3.9	N/A	

Table 6.29 - Off road bicycle path crossing at traffic signal standards (NSW bicycle guidelines, Austroads guides)

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Crossing at traffic signal (shared path)	Bicycle traffic signal activation button	Located at holding lines.	Careful consideration must be made on waiting times and the coordination of crossing signals. The provision of hand rails to assist cyclists to remain mounted whilst waiting for a green signal should be considered. Refer figure 3.5	To be determined in detailed design	
	Bicycle signal lamp	Visible from holding line		To be determined in detailed design	
	Coloured pavement		At intersections where both rider and walker traffic volumes are high, it is advisable to provide different pavement surface colouring or texture to mark the pedestrian crossing area.	✓	
	Linemarking		The width of the marked crossing for separated cycle paths should match the width of the paths feeding the crossing. 3.1	✓	

Table 6.30 - Shared path crossing at traffic signal standards (NSW bicycle guidelines, Austroads guides)

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6.3.10 Canal Road Shared Path

Review of the proposed designs for the gap projects to confirm compliance against standards and guidelines.

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Shared path (two way)	Bicycle lane width (m)	2.0 - 4.0		✓	
	Separation strip (m)	1.0	When a shared path features no adjacent car parking, a separation width of 0.4m can be achieved.	✓	
	Linemarking	Pavement symbols: – PS-3 – PS-4 Pavement arrows: – PA-I Linemarking: – S3	Symbols and arrows are used in an advisory capacity at 75m (200m max) intervals or adjacent to intersecting paths / streets to indicate travel direction. Solid edge lines can be used in areas of high bicycle and pedestrian traffic to precisely define the riding area. Refer figure 3.1	To be determined in detailed design	
	Coloured pavement	N/A		N/A	
	Entry / exit ramps	1: 10 slope (max)	The exit ramp from the road should be oriented to enable the cyclist to leave the road at a speed appropriate to the abutting development and the level of pedestrian usage of the path. Refer figure 3.8	N/A	
	Lighting	N/A	N/A	To be determined in detailed design	

Table 6.31 - Shared path (two way) standards (NSW bicycle guidelines, Austroads guides)

Lane Type	Item	Guideline	Design Notes	Meets Audit	Actioned
Crossing at traffic signal (shared path)	Bicycle traffic signal activation button	Located at holding lines.	Careful consideration must be made on waiting times and the coordination of crossing signals. The provision of hand rails to assist cyclists to remain mounted whilst waiting for a green signal should be considered. Refer figure 3.5	To be determined in detailed design	
	Bicycle signal lamp	Visible from holding line		To be determined in detailed design	
	Coloured pavement		At intersections where both rider and walker traffic volumes are high, it is advisable to provide different pavement surface colouring or texture to mark the pedestrian crossing area.	✓	
	Linemarking		The width of the marked crossing for separated cycle paths should match the width of the paths feeding the crossing. 3.1	✓	

Table 6.32 - Shared path crossing at traffic signal standards (NSW bicycle guidelines, Austroads guides)

Battery Point Sculpture Trail - Hobart, TAS

7.0 Signage and Wayfinding

7.1 BICYCLE SIGNAGE

The Cycling Aspect of Austroads Guideline (2017) have been referenced in this section of the report. The City of Sydney Bicycle Network Signage Guidelines (2010) have also been referenced in this section of the report for the use of directional signage within the City of Sydney LGA boundary. These guidelines are summarised in table 7.1. All proposed facilities will comply with the current versions of the Austroads guidelines which have reviewed best practice bicycle directional and wayfinding signage.

The three main functions of signage systems for bicycle network facilities are:

- To regulate and determine the type of facility within the context of the overall road system
- To warn users of identifiable potential hazards within the riding environment
- To assist users to find their way around the network

Signs at, or in, the vicinity of intersections should always be coordinated with other street furniture to ensure that:

- Intersection sight distances at critical locations are not affected
- The signs themselves are not obscured by other street furniture
- As much as possible made of multiple supports so that unsightly clutter is kept to a minimum
- Signs and supports are located sufficiently clear of kerbs to avoid being struck by turning vehicles, especially cornering bicycle riders and large vehicles
- Not located so as to obastruct pedestrians and wheelchairs etc.

Lane Type	Item	Guideline	Design Notes
All	Regulatory signage	See figure 7.1	Regulatory signage is always used to define the start of a facility. Regulatory signs should be located so as to not conflict with other road directional signage, or create ambiguity at critical turning points or crossings. The precise location for regulatory signage should be adjusted to suit the design of the intersection / road to include the bicycle facility.
	Warning, guidance & advisory signage	See figure 7.1	Warning and guidance signage should be located to provide advance indication of changed riding conditions or potential hazards. The precise location for warning and guidance signage should be adjusted to suit the overall design of the intersection / road and bicycle facility.
	Directional signage	See figure 7.1	At all intersections and other decision points, directional signage should be positioned so that bicycle riders can safely and comfortably follow their chosen route. The directional signage system should be closed. The advice of the RTA Bicycle Network Manager should be sought to determine suitable destinations to be used in any route signage system. Destinations which should be signposted are all cities, towns, and regional centres. Directional signage should be visible in either day or night conditions.
	Directional signage (City of Sydney Bicycle Network Signage Guidelines)		There are three categories of directional signage recommended for use on the City of Sydney bicycle network: regional route signage; local route signage; and, tourism and recreational route signage. All bicycle network directional signage should comply with the requirements and individual sign details.

Table 7.1 - Cycle signage guidelines

Bicycle wayfinding sign type	Description	Example
Fingerboards	Fingerboards are double-sided direction signs used at intersections and route turnings to show the way to destinations further along the route. When fingerboards are located at junctions with other routes they also show distances to the destinations shown on the sign. Fingerboards are used to mark all route types	
Direction indication signs	Direction indication signs are used in place of fingerboards where that type of sign cannot be used due to siting/mounting or legibility issues. Direction indication signs can show destinations only (at turning points) or destinations and distances (at junctions with other routes). Direction indication signs are used on veloways and primary routes	
Advance direction signs	Advance direction signs are used to indicate the destination choices in advance of a route junction. They are used on veloways and primary routes at junctions with other veloways or primary routes. They can be used on veloways or primary routes at junctions with local or tourist/recreational routes if those routes are of importance and connect to a major trip attractor relevant to cycle traffic on the primary route	
Reassurance direction signs	Reassurance direction signs are used following route junctions on veloways and important primary routes to reassure cyclists that they are following the correct route. These signs also indicate the distances to multiple destinations on the route being followed. They are usually only used on high-speed, limited-access veloways but can be used on important primary routes if reassurance is needed due to complex navigational situations	
Location signs	Location signs are used at underpasses or bridges over a cycle route to identify cross streets/roads which are not otherwise signed due to the remoteness of the site. Location signs can be used on all types of route	
Facilities/services signs	Facilities/services signs are simple one-line fingerboards used to indicate nearby facilities and services easily accessible from a route. These signs can be used on all types of route	
Route markers	Route markers are simple direction arrow signs used to indicate route turns in place of other types of directional signs. Route markers are used on local and tourist/recreational routes to indicate route turnings in between junctions with fingerboards. They are not used on veloways and primary routes. Direction indication or fingerboards should be used on these routes	

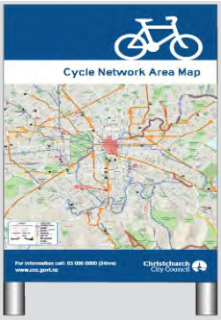
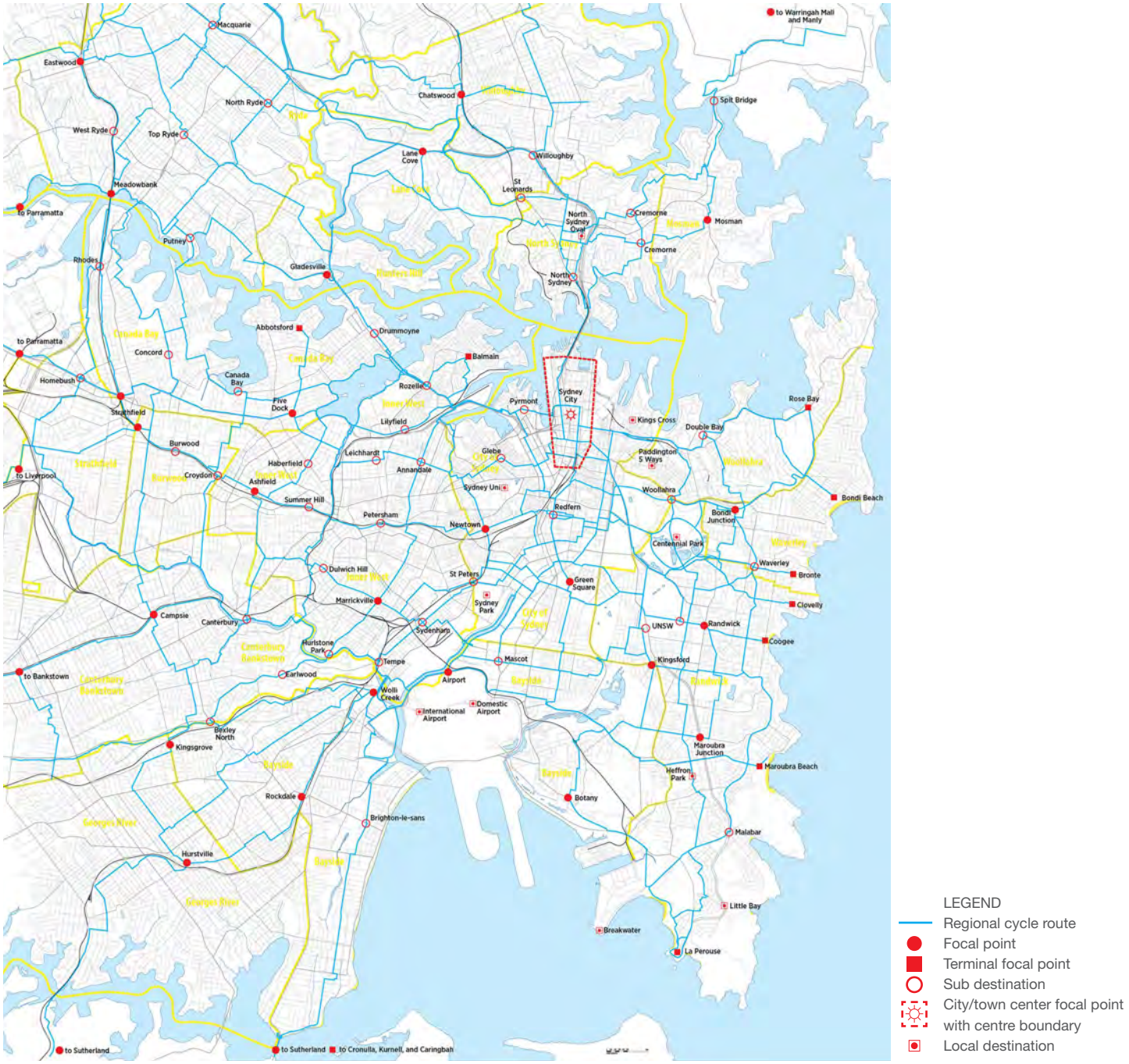
Bicycle wayfinding sign type	Description	Example
Map signs	Map signs are used on veloways and primary routes to provide additional wayfinding information to cyclists such as other routes and destinations within an area covered by a network map	
Project signs	Project signs are used on cycle facilities to provide information about new/changed cycleway and shared path infrastructure projects. Project signs are usually installed following the announcement of a project and can remain in position for up to two years after completion to highlight the public investment in the new infrastructure Project signs should meet the following objectives: • communication of critical project information • identification of the funding authority • delivery date Project signs may additionally list the following: • future planned infrastructure details • funding scheme (if applicable) • cycle network infrastructure funding agency additional involvement	

Figure 7.1 - Bicycle wayfinding sign types (Austroads 2016b Table A2)

The bicycle route signage in the area covered by the NSW M5 project, including the destination used on wayfinding signage, is to be consistent with the current version of the Inner Sydney Regional Cycle Network focal point map. The current version of this map is included below.



Inner Sydney Region Bicycle Network - Focal Point Map for Wayfinding Sign System Planning (June. 2017)

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7.2 REVIEW OF SITES AGAINST SIGNAGE

The existing signage for cyclists is non compliant with the NSW Bicycle Guidelines for the majority of sites shown in section 5.0. The following proposed routes and connections are non compliant as there is no cycle infrastructure in place,

- Campbell Road Between May Street & Bourke Road
- St Peters Interchange Cycle Path
- St Peters Interchange Recreation Area
- Sydney Park - Alexandria - Moore Park
- Campbell Street & Bedwin Road Connections
- Princes Highway & Canal Road Intersection
- King Street Gateway: minor directional signage is in place, will require additional signage plan.

7.3 SIGNAGE PLAN FOR NEW PROJECTS

A key ATN design principle is to provide a direct route which is based on clear desire lines and is coherent in linking main origins and destinations. This design principle is also reflected in the requirement to plan for an ATN which avoids complicated navigational requirements and enables cyclists to maintain momentum. Where a route is not direct these principles are typically compromised.

A key issue for the cycle routes through the inner west is that the main direct routes are on heavily trafficked major regional roads. These direct routes are compromised by competing traffic requirements such as bus stops, signalised intersections and parking. Without separated cycleways, these routes provide a significantly lower levels of safety and less attractive routes.

The alternative to these heavily trafficked routes is to use low traffic local streets. These streets generally provide more attractive routes for cycling, provide more interesting routes, involve less conflict with parking, typically do not have buses and have less complex intersections. However these routes are not typically direct, and require linkages back into the main trip origins and destinations. These routes are also often not located on obvious desire lines as these routes tend to have less apparent connectivity compared to the main direct routes.

A high quality wayfinding and signage strategy will be developed for all cycle routes to address the above issues. This is particularly important as many of the routes are not able to be followed intuitively. At present the current signage:

- provides limited warning of route changes and route choices
- provides limited information about destinations
- is often compromised locations of signage which may not be in a cyclist line of vision
- is not consistently applied to the whole of a route such that it is not possible to rely on the signage for navigation
- is not consistently applied at all points of route choices

RMS has committed to the development of a high quality wayfinding and street signage design to be applied across all cycle routes to address the above issues by using clearly marked routes where navigation is necessarily complex. This signage is proposed to use distinct signage for different routes such that a route can be easily followed.

The wayfinding and street signage design will include the identified gap projects and the existing M5 Linear Park shared paths between King Georges Road and Bexley Road.

The street signage design will be developed in accordance with the AustRoads guidelines and councils are to be consulted for their latest signage requirements during the detailed design phase.

Columbia Street Cycle Way - Brooklyn, NY

8.0 Associated Landscaping Works

The following table outlines the associated landscaping works for each of the improved sites.

Landscaping works that are proposed adjacent to cycle ways are to feature ground cover vegetation species. This will limit the overgrowth factor of the vegetation adjacent to the cycle ways and ultimately limit the narrowing of the paved surface on the cycle way.

Detailed landscaping designs will be developed in consultation with councils to ensure consistency with adjacent landscaping and councils latest landscape strategies.

Sites	Refer Section	Description
Campbell Road Between May Street & Bourke Road	5.1	– Landscaping as per New M5 UDLP submission
Euston Road and Sydney Park Road Intersection	5.2	– Landscaping as per New M5 UDLP submission
St Peters Interchange Cycle Path	5.3	– Landscaping as per New M5 UDLP submission
M5 East Linear Park Shared Path	5.4	– Landscaping as per New M5 UDLP submission
St Peters Interchange Recreation Area - Condition B62	5.5	– Landscaping as per Condition B62A Campbell Road Bridge Sub-plan
Sydney Park - Alexandria - Moore Park	5.6	Landscaping generally consistent with the adjacent landscaping works as described in the New M5 UDLP. Final landscaping will be resolved during detail design but may include: – Mass planting on pedestrian and cyclist road crossing on Sydney Park Road – Mass planting on the western side of the proposed separated cycle way underneath the retained existing trees – Street furniture through out western side of Mitchell Road separated cycleway
Campbell Street & Bedwin Road Connections	5.7	Landscaping generally consistent with the adjacent landscaping works as described in the New M5 UDLP. Final landscaping will be resolved during detail design but may include: – Mass planting on road islands on May Street – Mass planting and proposed trees on the northern side of Bedwin road bridge on the eastern side and western side of the embankments
Princes Highway & Canal Road Intersection	5.8	Landscaping generally consistent with the adjacent landscaping works as described in the New M5 UDLP. Final landscaping will be resolved during detail design but may include: – Mass planting in new road islands
King Street Gateway	5.9	– Introduce residual and remnant landscape elements – Utilise residual land through landscaping
Sydenham Station Connection	5.11	– Landscaping to incorporate new planted traffic calming devices along George St/Swain St. – Landscaping to raised threshold crossings along Burrows Avenue including new paving paving and landscaping – New bike racks along Burrows Ave at local shops – New planting buffer strip where space allows along Burrow Ave south
Canal Road Shared Path	5.12	Landscaping generally consistent with the adjacent landscaping works as described in the New M5 UDLP. Final landscaping will be resolved during detail design but may include: – Mass planting in new road side verges

Table 8.1 - Associated landscaping works

George Street Cycle Way - Sydney, NSW

9.0 Timing and Staging of Works

The timing and staging of the routes outlined in this report have been outlined in the following table 9.1. Figure 9.1 highlights the WestConnex New M5 routes, Condition B51 Improvements and future RMS projects located around the St Peters Intersection.

Section Reference		Name	Summary	Status	Completion Date	Delivered by
5.1	A	Campbell Road between May Street & Bourke Road	Facilitating City of Sydney's planned Alexandra Canal cycle path	Planned as part of existing Westconnex works	2020	WestConnex
5.3	B	St Peters Interchange Cycle Path	Connecting Sydney Park to Princes Highway at Canal Road	Planned as part of existing Westconnex works	2020	WestConnex
5.4		M5 East Linear Park Shared Path	Upgrades to shared paths	Planned as part of existing Westconnex works	2020	WestConnex
5.5	C	St Peters Interchange Recreation Area	Currently limited connectivity from Campbell Road to Sydney Park	Gap. Being addressed as part of Condition B62 St Peters Interchange Recreation Area	2024 (within 4 years after New M5 commencement	RMS
5.6	D	Sydney Park - Alexandria - Moore Park Connection	Currently limited connectivity from Sydney Park Road/Euston Road to planned A2MP ATN	Gap. To be addressed in Condition B51 via Mitchell Road, Harley Street and McEvoy Street	2020	RMS
5.7	E	Campbell Street & Bedwin Road Connections	Currently limited connectivity into Inner West Council ATN to access Enmore/ Marrickville and Camdenville Park	Gap. To be addressed in Condition B51	2020	RMS and Inner West Council
5.8	F	Princes Highway & Canal Road Intersection	Currently limited connectivity into Inner West Council ATN to access Sydenham Station	Gap. To be addressed in Condition B51	2020	RMS and Inner West Council
5.9	G	King Street Gateway	Currently limited connectivity into Newtown town centre and existing Lord/ Concord Street ATN	Gap. To be addressed as part of King St Gateway, which is implemented after opening of WCX New M5	2021	RMS
5.10	H	Airport Gateway	Currently limited connectivity to Airport and along Canal Road	Gap. Being addressed as part of Sydney Gateway project under separate project approval	TBC	RMS
5.11	I	Sydenham Station Connection	Connection to Sydenham Station	Gap. To be completed on completion of Inner West Councils new bike path along Henry Street	Anticipated 2020 in coordination with IWC completion dates	RMS and Inner West Council
5.12	J	Canal Road Shared Path	Connection to future Alexandra Canal paths	Gap. To be completed on completion of Alexandra Canal paths	TBC	RMS and Inner West Council

Table 9.1 - Staging of works

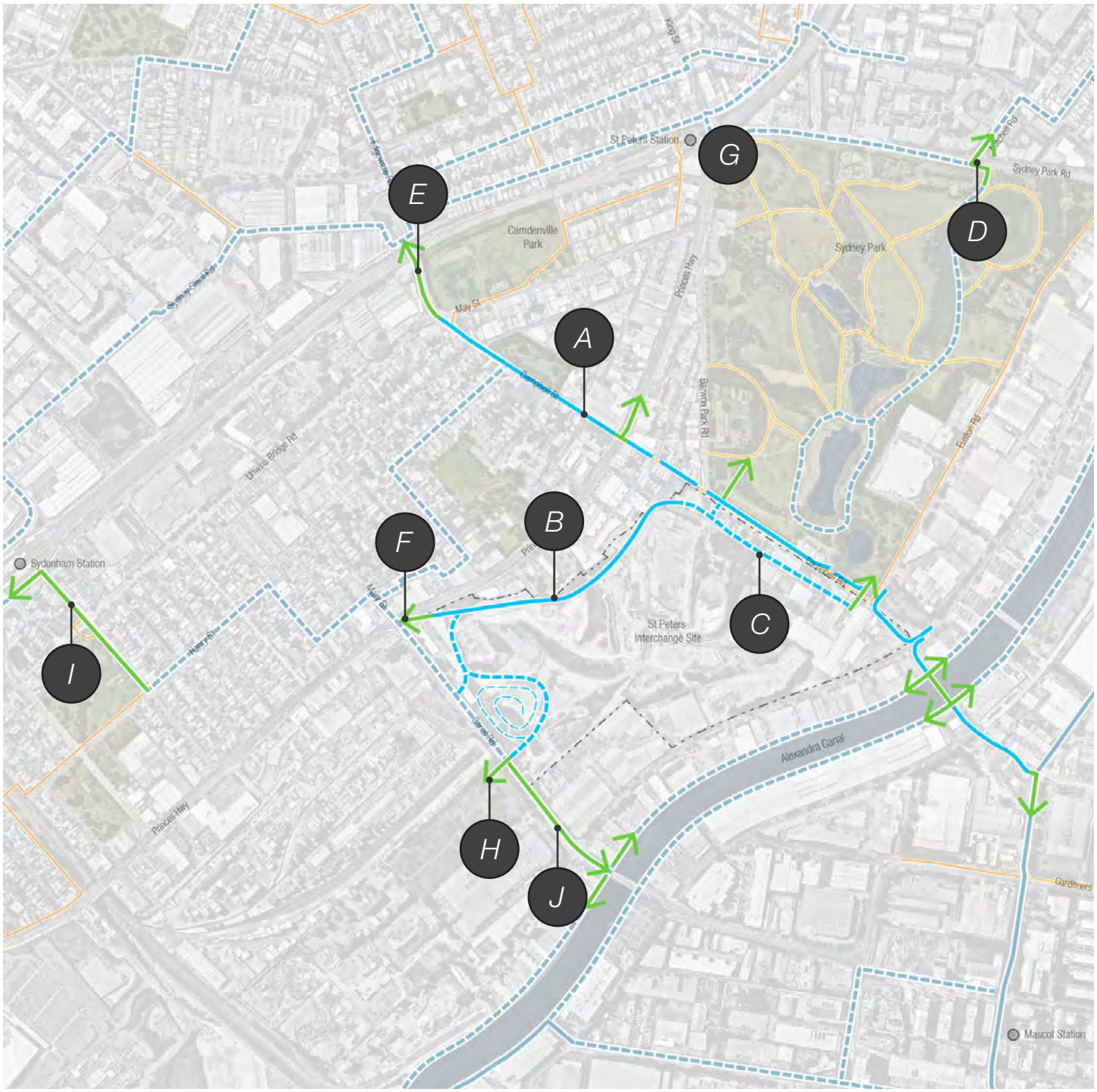

Figure 9.1 - Staging of works

Green Square to City Centre Cycle Way - Sydney, NSW

10.0 Summary and Conclusions

This report has developed a pedestrian and cycle implementation strategy developing upon the outcomes of Planning Condition B50. As part of the pedestrian and cycle implementation strategy, the following has been addressed as part of Planning Condition B51:

- Safety audit of existing and proposed pedestrian and cycle facilities
- Details of selected routes and connections to existing local and regional routes
- Timing and staging of all works
- Infrastructure details, including lighting, safety, security, and standards compliance
- Signage and wayfinding measures
- Details of associated landscaping works

The pedestrian and cycle routes that are proposed as a part of the WestConnex New M5 works and Condition B51 Improvements where audited based on the standards set by the NSW Bicycle Guidelines and Austroads Guides. A summary of these audits are outlined in the following table 10.1.

Section	Name	Cycle Lane Standards	Summary
6.3.1	Campbell Road between May Street & Bourke Road	Separated cycle lane (two way)	Compliant
		Shared path (two way)	Compliant
		Crossing at traffic signal (off road bicycle path)	Not detailed at current level of design
		Line marking	Compliant
		Lighting	Not detailed at current level of design
6.3.2	St Peters Interchange Shared Path	Shared path off road and not within road reserve	Compliant
		Line marking	Not detailed at current level of design
		Lighting	Not detailed at current level of design
6.3.3	M5 East Linear Park Shared Path	Shared path off road and not within road reserve	Compliant
		Crossing at traffic signal (shared path)	Compliant
		Line marking	Compliant
		Lighting	Existing / relocated lighting to be audited
6.3.4	St Peters Interchange Recreation Area	Shared path off road and not within road reserve	Not detailed at current level of design
		Line marking	Not detailed at current level of design
		Lighting	Not detailed at current level of design
6.3.5	Sydney Park - Alexandria - Moore Park Connection	Separated cycle lane (two way)	Compliant
		Shared Path (two way)	Compliant
		Crossing on platform two way off road bicycle path intersection	Compliant
		Crossing at traffic signal (off road bicycle path)	Compliant - Indicative only
		Crossing at traffic signal (shared path)	Compliant - Indicative only
		Lighting	Not detailed at current level of design
6.3.6	Campbell Road & Unwins Bridge Road Connections	Separated cycle lane (two way)	Compliant
		Shared Path (two way)	Compliant
		Crossing at traffic signal (off road bicycle path)	Compliant - Indicative only
		Crossing at traffic signal (shared path)	Compliant - Indicative only
		Lighting	Not detailed at current level of design
6.3.7	Princes Highway & Canal Road Intersection	Shared path (two way)	Compliant
		Crossing at traffic signal (off road bicycle path)	Compliant - Indicative only
		Crossing at traffic signal (shared path)	Compliant - Indicative only
		Lighting	Not detailed at current level of design
6.3.8	King Street Gateway	Separated cycle lane (two way)	Compliant - Indicative only
		Shared Path (two way)	Compliant - Indicative only
		Crossing at traffic signal (off road bicycle path)	Compliant - Indicative only
		Crossing at traffic signal (shared path)	Compliant - Indicative only
		Lighting	Not detailed at current level of design
6.3.9	Sydenham Station Connection	Separated cycle lane (two way)	Compliant
		Shared path (two way)	Compliant
		Contraflow cycle lane	Compliant
		Crossing at traffic signal (off road bicycle path)	Compliant - Indicative only
		Line marking	Compliant - Indicative only
		Lighting	Not detailed at current level of design
6.3.10	Canal Road Shared Path	Shared path (two way)	Compliant
		Crossing at traffic signal (shared path)	Compliant - Indicative only
		Lighting	Not detailed at current level of design

Table 10.1 - Standard compliance audit summary

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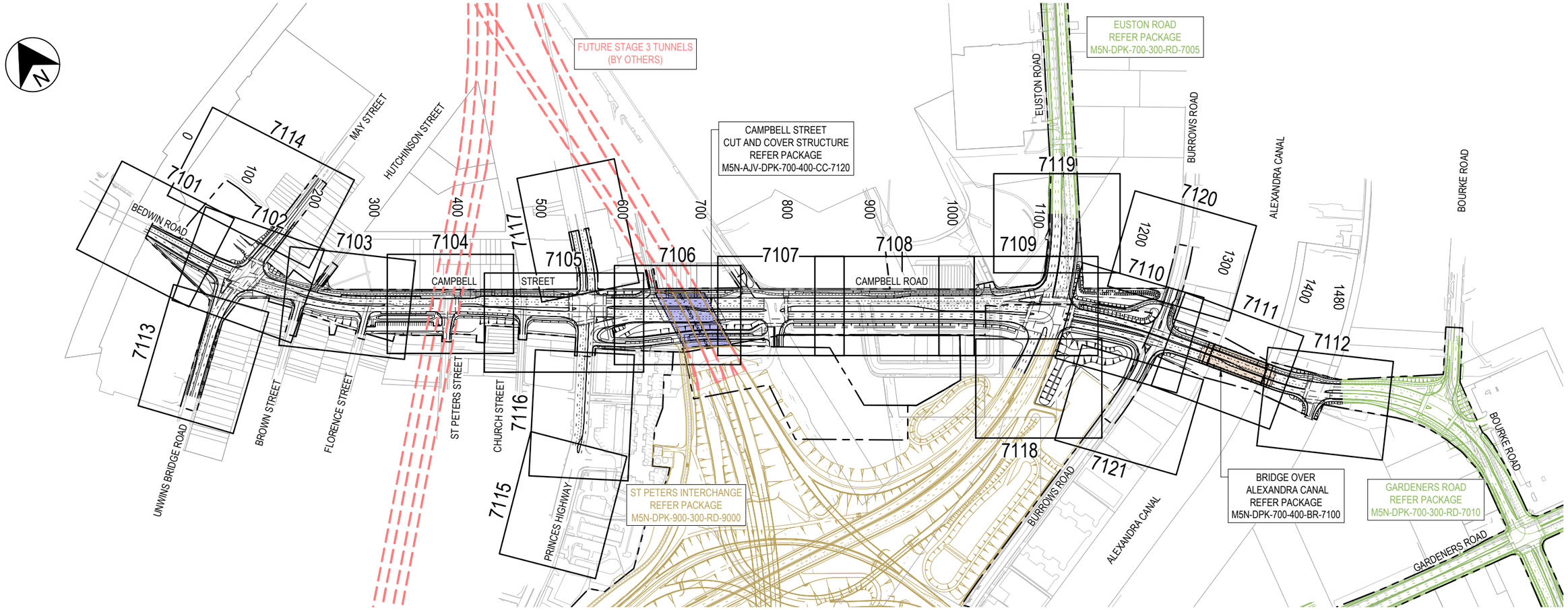
Appendices

APPENDICES

1. Campbell Road Between May Street & Bourke Road
2. Euston Road & Sydney Park Road intersection
3. St Peters Interchange Cycle Path
4. M5 East Linear Park Shared Path
5. Sydney Park to Alexandria to Moore Park
6. Campbell Street & Bedwin Road connections
7. Princes Highway and Canal Road Intersection
8. King Street Gateway
9. Concept Design Consultation Meeting Minutes
10. Safety Audit - SPI Area
11. Safety Audit - M5 East Linear Shared Path
12. Council specifications on concrete pedestrian paving
13. Sydenham Station Connection
14. Canal Road Shared Path
15. Condition B51. Endorsement

APPENDIX 1

Campbell Road Between May Street & Bourke Road



ACCEPTED FOR CONSTRUCTION

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SCALES ON A3 SIZE DRAWING

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CO-ORDINATE SYSTEM	HEIGHT DATUM
MGA ZONE 56	AHD

WestConnex New M5

CPB CONTRACTORS | DRAGADOS | SAMSUNG C&T | Golder Associates | HASSELL

AJJV AURECON JACOBS NEW M5 JOINT VENTURE

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

WESTCONNEX NEW M5

A3

ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY (Incl. ROAD FURNITURE)
ALIGNMENT KEY PLAN

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7011	00

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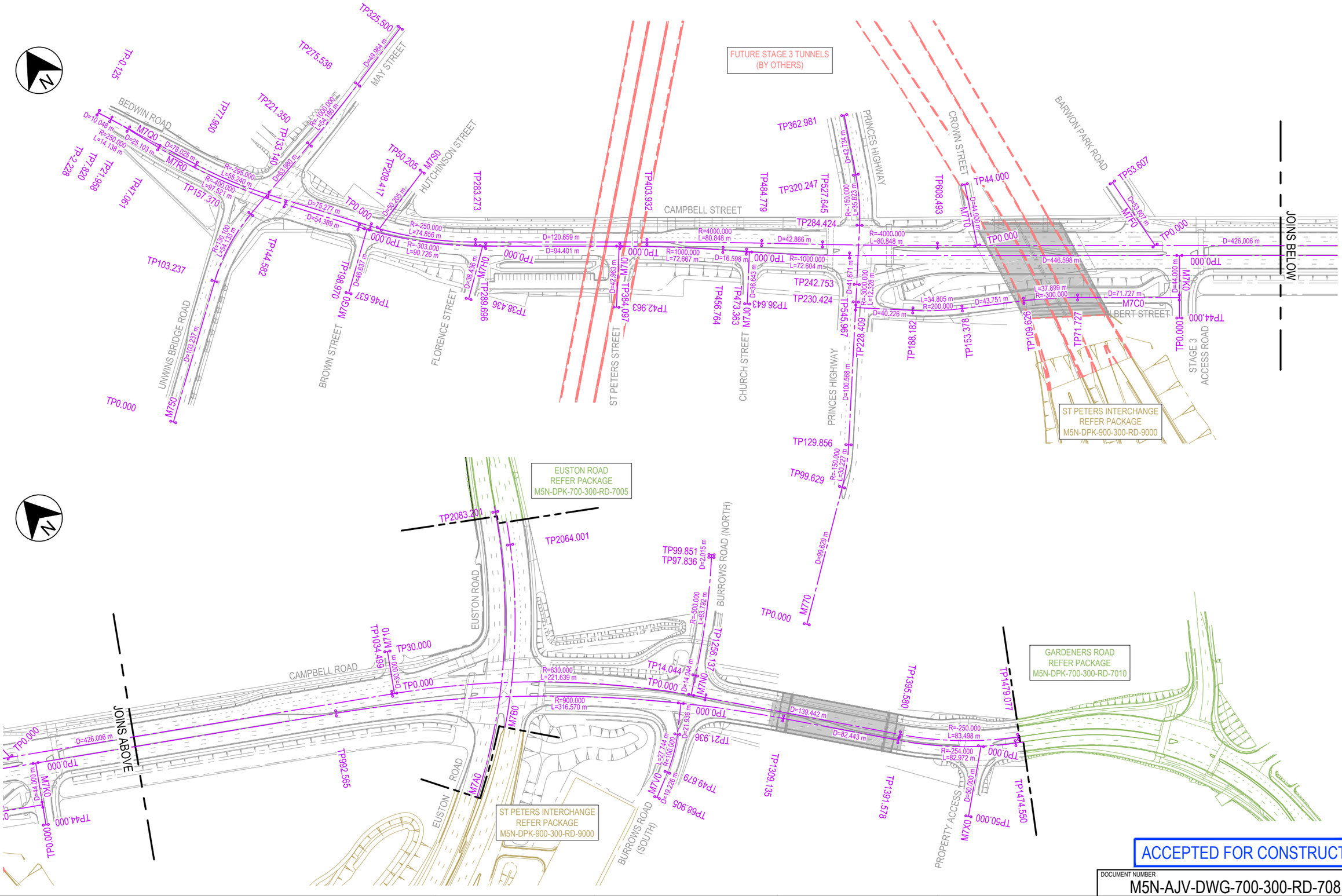

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CO-ORDINATE SYSTEM	MGA ZONE 56
HEIGHT DATUM	AHD
PLOT DATE / TIME	5/07/2017 2:14:46 PM
PLOT BY	gomezc2
CLIENT	Sydney Motorway Corporation / WestConnex
TITLE	WESTCONNEX NEW M5
	ST PETERS LOCAL ROADS - CAMPBELL ROAD
	ROAD GEOMETRY (Incl. ROAD FURNITURE)
	ALIGNMENT CONTROL PLAN
RMS REGISTRATION No.	DS2016/002598
ISSUE STATUS	ISSUED FOR CONSTRUCTION
EDMS No.	
SHEET No.	RD-7081
REV	00
A3	

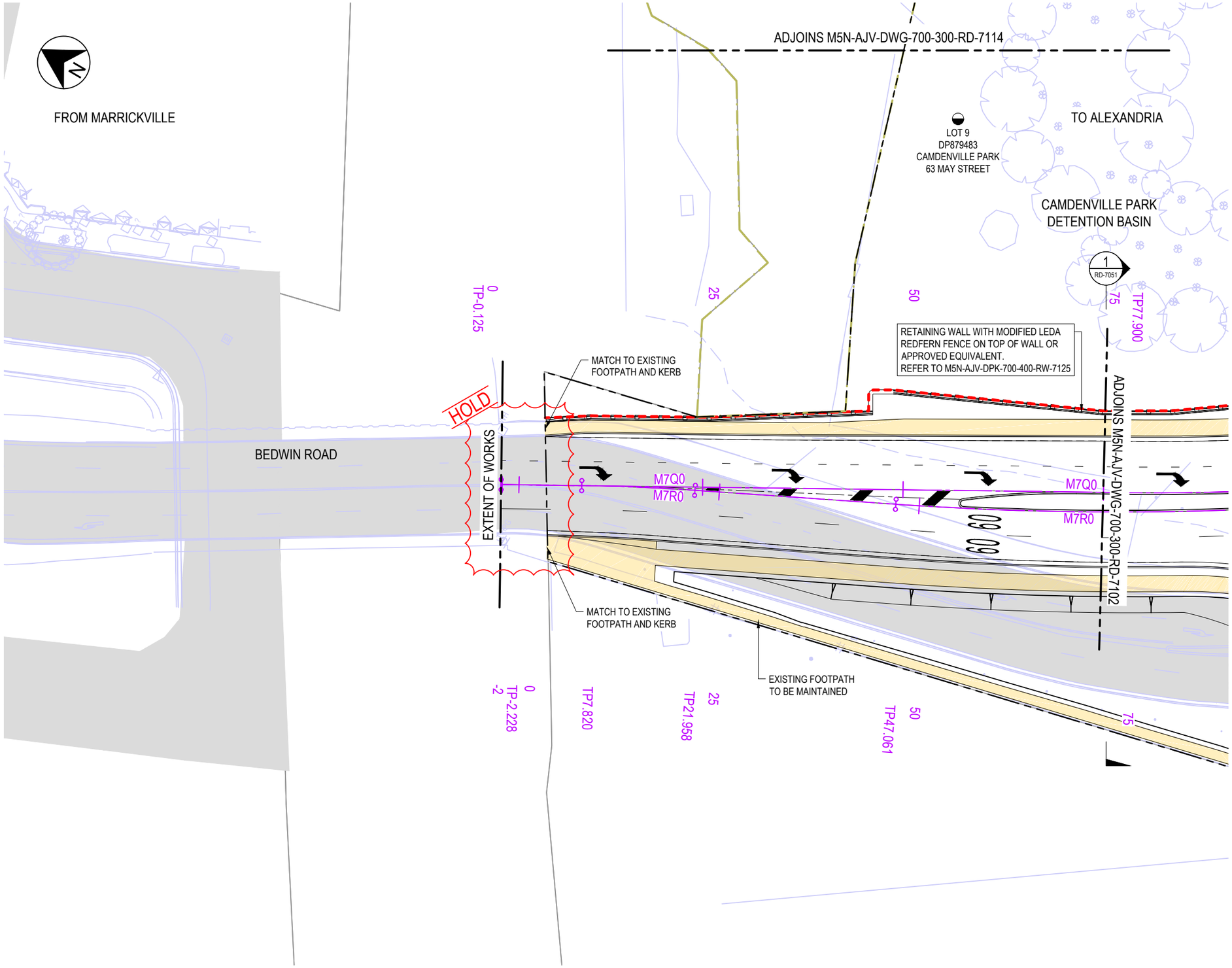
DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES

DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

AURECON JACOBS NEW M5 JOINT VENTURE

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED

0 5 10 15 20 25 30 35 40 45 50mm ON A3 SIZE ORIGINAL

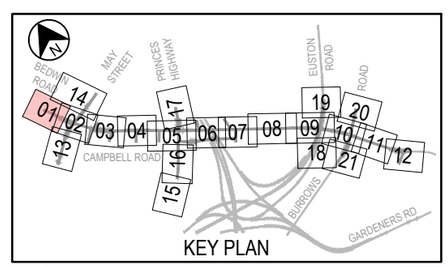


LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORKS BOUNDARY
- SURVEY
- CADASTRAL
- FUTURE WORKS (BY OTHERS)
- RETAINING WALL
- PEDESTRIAN FENCE
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- BRIDGE
- CUT AND COVER STRUCTURE
- FOOTPATH
- SHARED USE PATH
- BICYCLE LANE - OFF ROAD
- CYCLEWAY - ON ROAD
- CARPARK
- PARKING BAY

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-7005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7600.
4. FOR PROPERTY ADJUSTMENTS REFER TO PACKAGE M5N-AJV-DPK-700-300-PA-7195.



KEY PLAN

ACCEPTED FOR CONSTRUCTION

DRAWING FILE LOCATION \ NAME				
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DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES

PROJECT BREAKDOWN STRUCTURE: M5N-AJV-DPK-700-300-RD-7000

SCALES ON A3 SIZE DRAWING: SCALE 1:500 (5 0 5 10) AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56 | HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
5/07/2017 2:15:23 PM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT: Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER: M5N-AJV-DWG-700-300-RD-7101

WESTCONNEX NEW M5

A3

ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY
PLAN

SHEET 1 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7101	00

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED
0 5 10 15 20 25 30 35 40 45 50mm ON A3 SIZE ORIGINAL

FROM MARRICKVILLE

TO ALEXANDRIA

LOT 9
DP879483
CAMDENVILLE PARK
63 MAY STREET

CAMDENVILLE PARK
DETENTION BASIN

MAY STREET

ADJOINS M5N-AJV-DWG-700-300-RD-7114

RETAINING WALL WITH MODIFIED LEDA REDFERN FENCE ON TOP OF WALL OR APPROVED EQUIVALENT.
REFER TO M5N-AJV-DPK-700-400-RW-7125

BEDWIN ROAD

CAMPBELL STREET

ADJOINS M5N-AJV-DWG-700-300-RD-7101

ADJOINS M5N-AJV-DWG-700-300-RD-7103

TRAFFIC CONTROL SIGNALS
REFER TO PACKAGE
M5N-AJV-DPK-700-300-TM-7080

EXISTING FOOTPATH
TO BE MAINTAINED

UNWINS BRIDGE ROAD

ADJOINS M5N-AJV-DWG-700-300-RD-7113

EXTENT OF WORK

BROWN STREET

TP77.900 TP221.350 TP133.140 TP157.370 TP144.582 TP198.970 TP208.417 TP0.000 TP50..

M750 M7Q0 M7R0

225 200 175 150 125 100 75 50 25

LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORKS BOUNDARY
- SURVEY
- CADASTRAL
- FUTURE WORKS (BY OTHERS)
- RETAINING WALL
- PEDESTRIAN FENCE
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- BRIDGE
- CUT AND COVER STRUCTURE
- FOOTPATH
- SHARED USE PATH
- BICYCLE LANE - OFF ROAD
- CYCLEWAY - ON ROAD
- CARPARK
- PARKING BAY

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-7005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7600.
4. FOR PROPERTY ADJUSTMENTS REFER TO PACKAGE M5N-AJV-DPK-700-300-PA-7195.

KEY PLAN

ACCEPTED FOR CONSTRUCTION

DRAWING FILE LOCATION \ NAME				PROJECT BREAKDOWN STRUCTURE
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DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES

SCALES ON A3 SIZE DRAWING
SCALE 1:500 5 0 5 10 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

CPB CONTRACTORS | DRAGADOS | SAMSUNG C&T | aJJV | Golder Associates | HASSELL

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
5/07/2017 4:21:02 PM	gomezc2

	NAME	DATE
TITLE		
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT: Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-7102

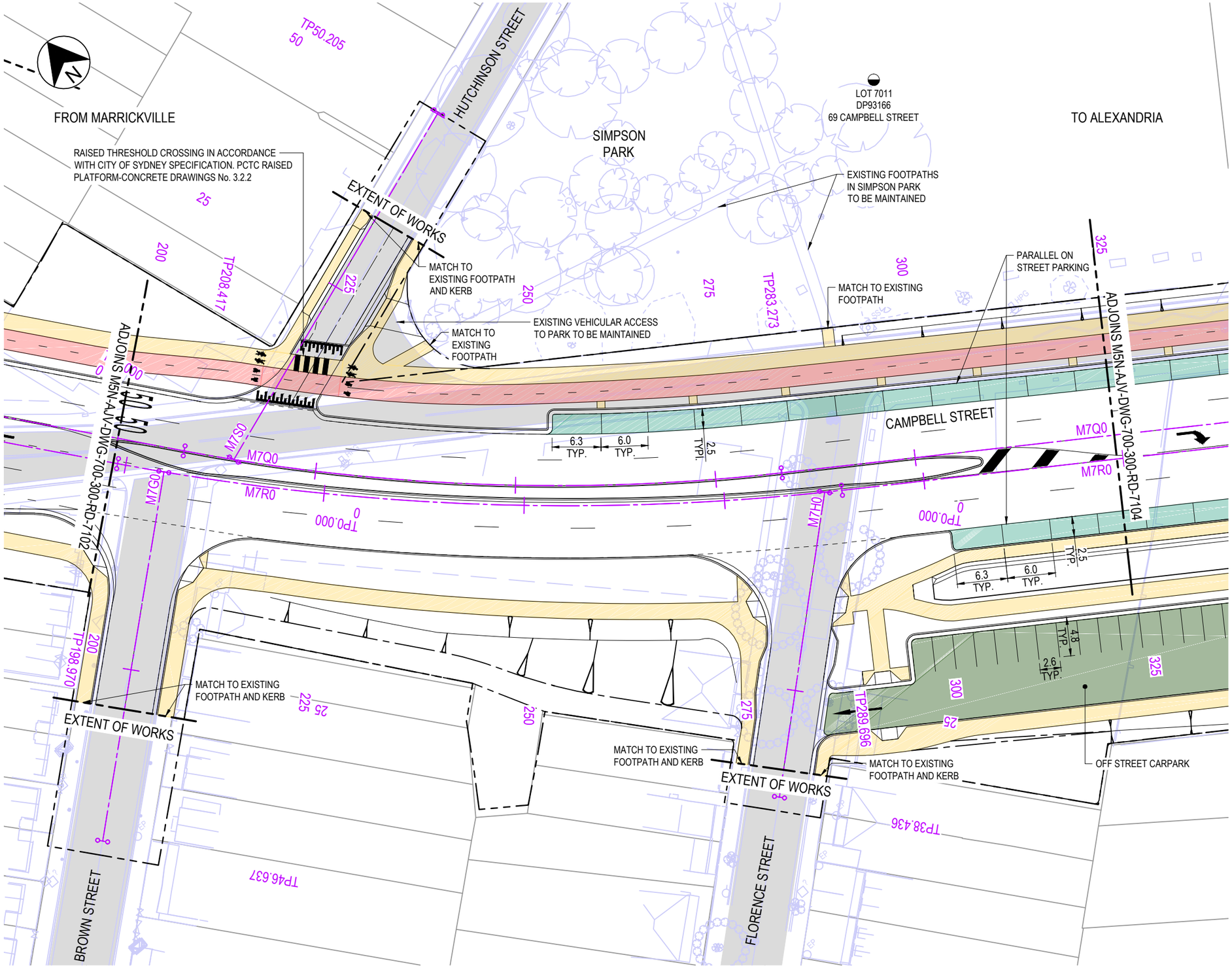
WESTCONNEX NEW M5 — A3

ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY
PLAN

SHEET 2 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7102	00

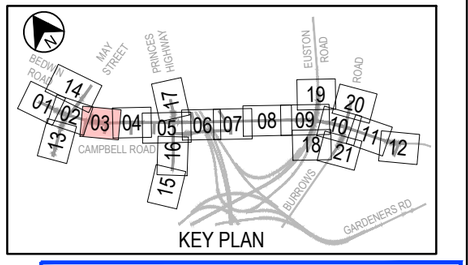


LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORKS BOUNDARY
- SURVEY
- CADASTRAL
- FUTURE WORKS (BY OTHERS)
- RETAINING WALL
- PEDESTRIAN FENCE
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- BRIDGE
- CUT AND COVER STRUCTURE
- FOOTPATH
- SHARED USE PATH
- BICYCLE LANE - OFF ROAD
- CYCLEWAY - ON ROAD
- CARPARK
- PARKING BAY

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-7005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7600.
4. FOR PROPERTY ADJUSTMENTS REFER TO PACKAGE M5N-AJV-DPK-700-300-PA-7195.



KEY PLAN

ACCEPTED FOR CONSTRUCTION

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-7103

DRAWING FILE LOCATION \ NAME				
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DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7000

SCALES ON A3 SIZE DRAWING
SCALE 1:500 5 0 5 10 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

HASSELL

PLOT DATE / TIME	PLOT BY
5/07/2017 2:15:44 PM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT
Sydney Motorway Corporation | WestConnex

WESTCONNEX NEW M5 — A3
ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY
PLAN
SHEET 3 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7103	00

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED
0 5 10 15 20 25 30 35 40 45 50mm ON A3 SIZE ORIGINAL

FROM MARRICKVILLE

TO ALEXANDRIA

SIMPSON PARK

FUTURE STAGE 3 TUNNELS (BY OTHERS)

EXISTING FOOTPATH IN SIMPSON PARK TO BE MAINTAINED

2 RD-7051

TRAFFIC CONTROL SIGNALS REFER TO PACKAGE M5N-AJV-DPK-700-300-TM-7080

MATCH TO EXISTING FOOTPATH

PARALLEL ON STREET PARKING

ADJOINS M5N-AJV-DWG-700-300-RD-7103

ADJOINS M5N-AJV-DWG-700-300-RD-7105

CAMPBELL STREET

M7Q0

M7R0

M7I0

TP0.000

TP403.932

TP384.097

TP456.764

TP42.963

325 350 375 400 425 450

2.5 TYP. 6.0 TYP. 6.3 TYP.

4.8 TYP. 2.6 TYP.

ACCESSABILITY PARKING WITH SHARED AREA

OFF STREET CARPARK

1.3m HIGH BOLLARD LOCATED CENTRALLY, 800mm OFFSET FROM EDGE OF SPACE, IN ACCORDANCE WITH AUSTRALIAN STANDARDS 2890.6 FIGURE 2.3

MATCH TO EXISTING FOOTPATH AND KERB

EXTENT OF WORKS

HOLD

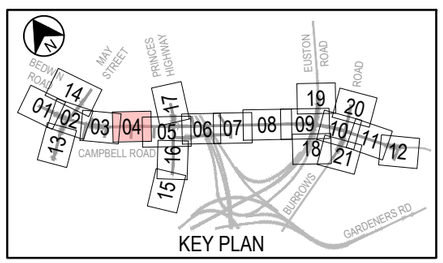
ST PETERS STREET

LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORKS BOUNDARY
- SURVEY
- CADASTRAL
- FUTURE WORKS (BY OTHERS)
- RETAINING WALL
- PEDESTRIAN FENCE
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- BRIDGE
- CUT AND COVER STRUCTURE
- FOOTPATH
- SHARED USE PATH
- BICYCLE LANE - OFF ROAD
- CYCLEWAY - ON ROAD
- CARPARK
- PARKING BAY

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-7005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7600.
4. FOR PROPERTY ADJUSTMENTS REFER TO PACKAGE M5N-AJV-DPK-700-300-PA-7195.



KEY PLAN

ACCEPTED FOR CONSTRUCTION

50mm ON A3 SIZE ORIGINAL

DRAWING FILE LOCATION \ NAME
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DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7000

SCALES ON A3 SIZE DRAWING
SCALE 1:500 5 0 5 10 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

CPB CONTRACTORS | DRAGADOS | SAMSUNG C&T | Golder Associates | HASSELL

AJJV AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
5/07/2017 2:15:55 PM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT: Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-7104

WESTCONNEX NEW M5

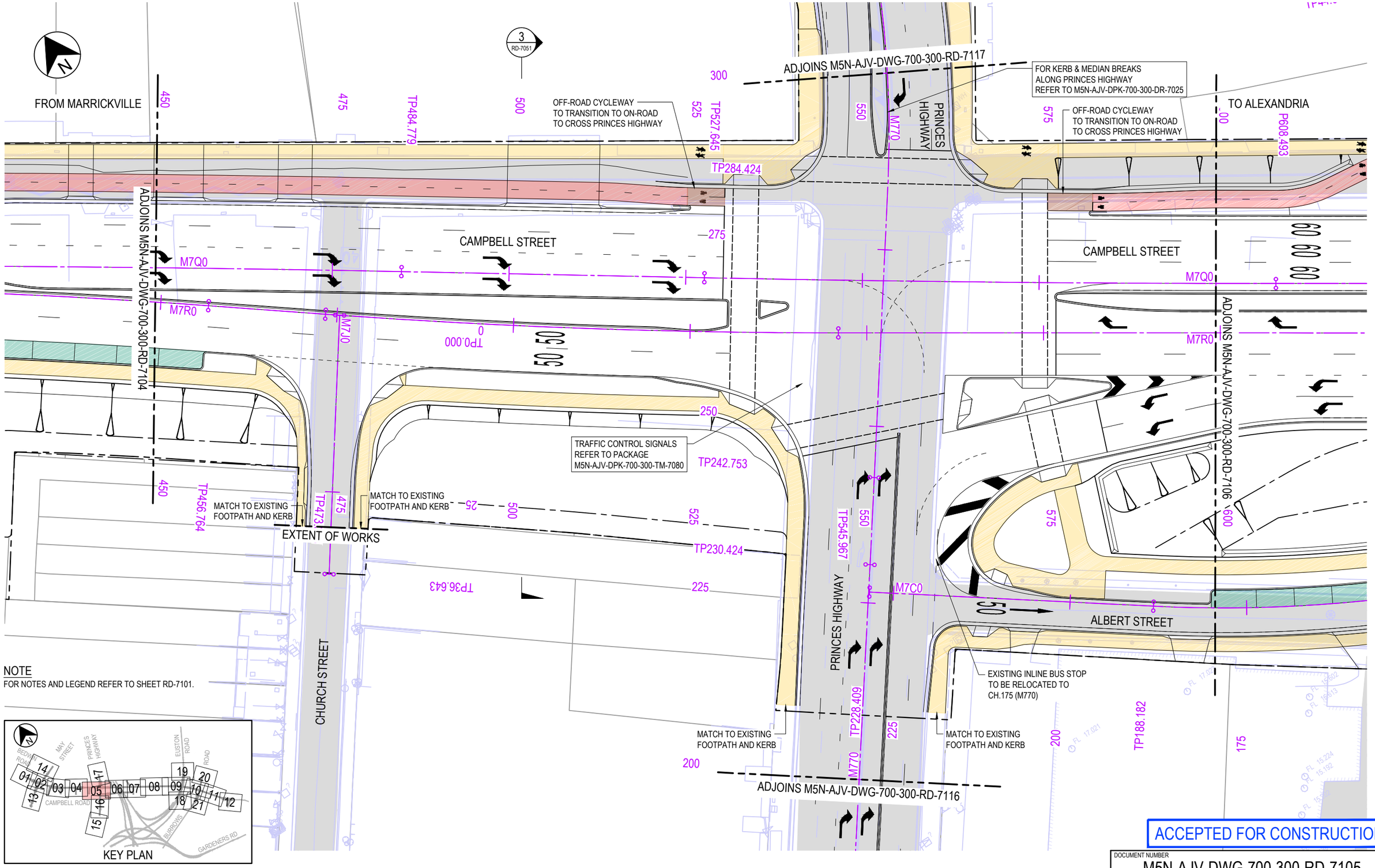
A3

ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY
PLAN

SHEET 4 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7104	00



NOTE
FOR NOTES AND LEGEND REFER TO SHEET RD-7101.

ACCEPTED FOR CONSTRUCTION

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DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7000

SCALES ON A3 SIZE DRAWING
SCALE 1:500 (5 0 5 10) AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
5/07/2017 2:16:06 PM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT
Sydney Motorway Corporation | WestConnex

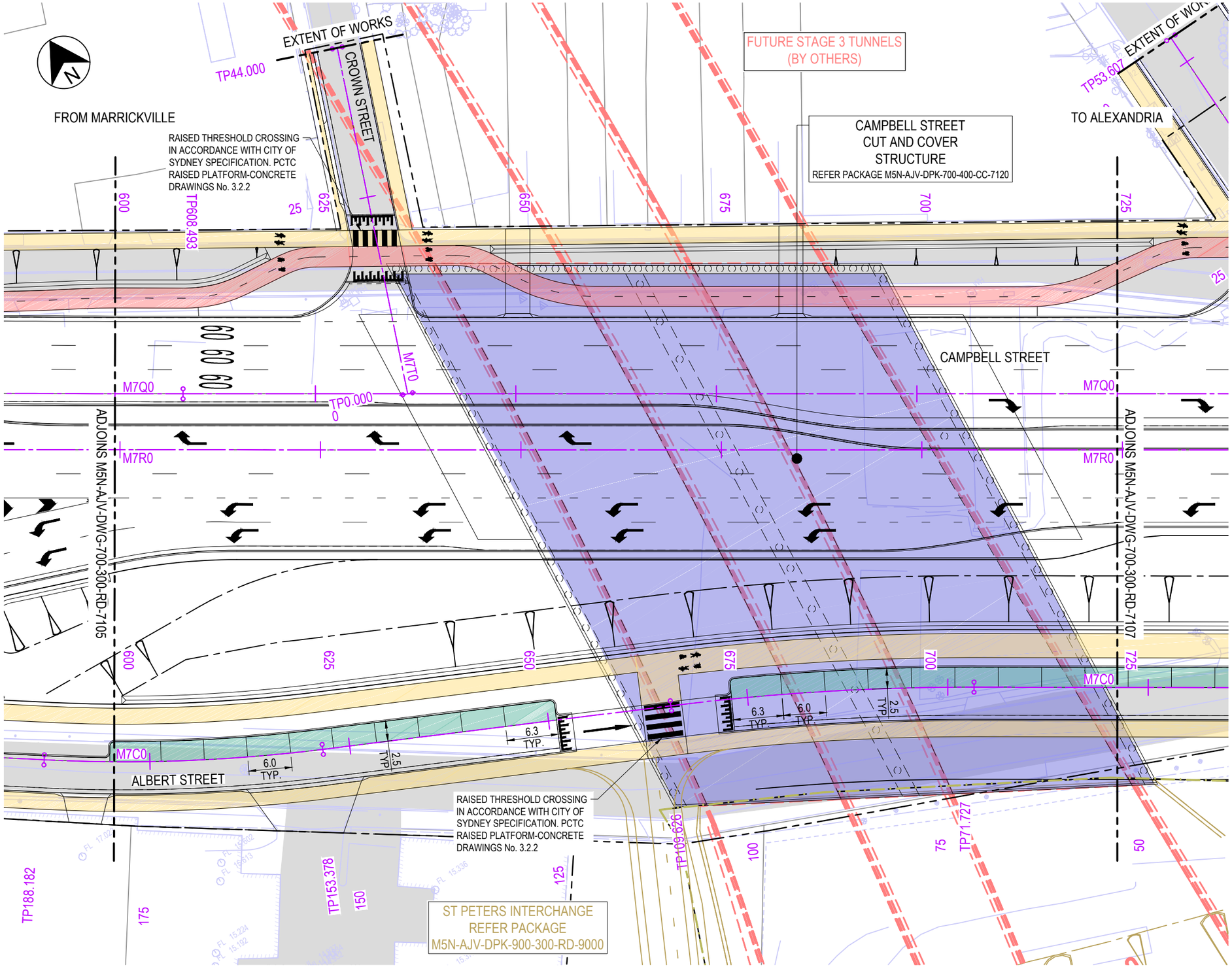
DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-7105

WESTCONNEX NEW M5 — A3
ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY
PLAN
SHEET 5 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7105	00

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED 50mm ON A3 SIZE ORIGINAL



LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORKS BOUNDARY
- SURVEY
- CADASTRAL
- FUTURE WORKS (BY OTHERS)
- RETAINING WALL
- PEDESTRIAN FENCE
- PROPERTY ADJUSTMENT
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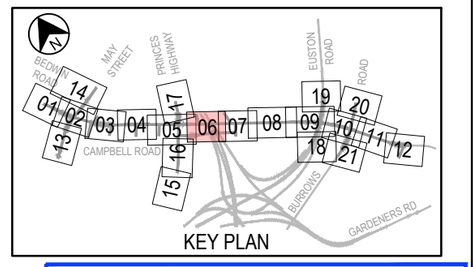
- EXISTING PAVEMENT
- BRIDGE
- CUT AND COVER STRUCTURE
- FOOTPATH
- SHARED USE PATH
- BICYCLE LANE - OFF ROAD
- CYCLEWAY - ON ROAD
- CARPARK
- PARKING BAY

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-7005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7600.
4. FOR PROPERTY ADJUSTMENTS REFER TO PACKAGE M5N-AJV-DPK-700-300-PA-7195.



KEY PLAN

ACCEPTED FOR CONSTRUCTION

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED

0 5 10 15 20 25 30 35 40 45 50mm ON A3 SIZE ORIGINAL

DRAWING FILE LOCATION \ NAME				
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DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES

PROJECT BREAKDOWN STRUCTURE: M5N-AJV-DPK-700-300-RD-7000

SCALES ON A3 SIZE DRAWING: SCALE 1:500 (5 0 5 10) AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56 | HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
5/07/2017 2:16:17 PM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT: Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER: M5N-AJV-DWG-700-300-RD-7106

WESTCONNEX NEW M5

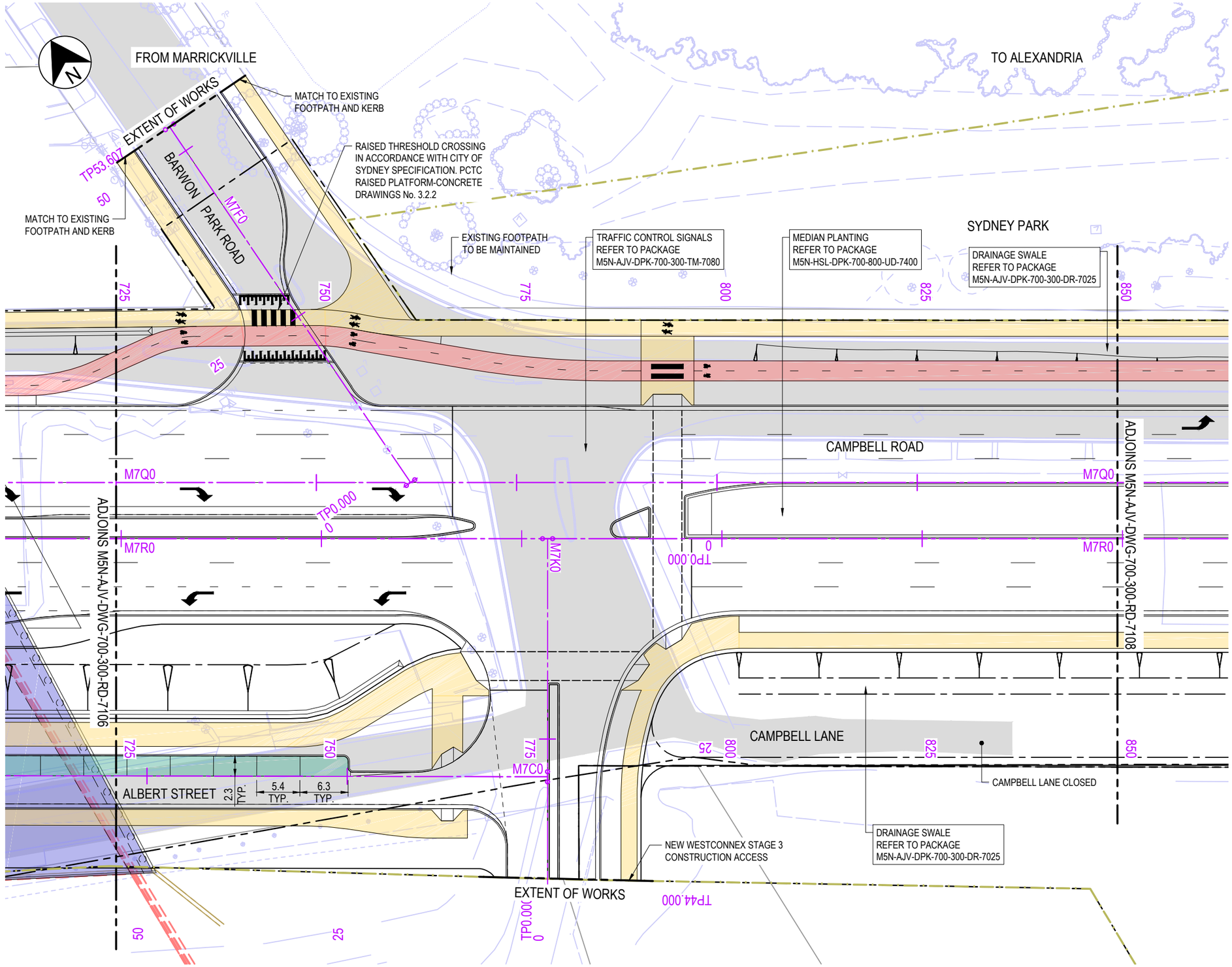
A3

ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY
PLAN

SHEET 6 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7106	00



LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORKS BOUNDARY
- SURVEY
- CADASTRAL
- FUTURE WORKS (BY OTHERS)
- RETAINING WALL
- PEDESTRIAN FENCE
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- BICYCLE LANE - OFF ROAD
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- CARPARK
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NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-7005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7600.
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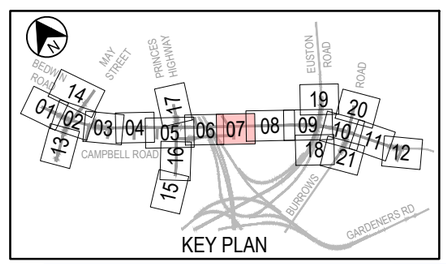

KEY PLAN

ACCEPTED FOR CONSTRUCTION

DRAWING FILE LOCATION \ NAME					PROJECT BREAKDOWN STRUCTURE	CLIENT
C:\pw_work\gomezc2\anz_prod\d0262144\M5N-AJV-DWG-700-300-RD-7101-7121.dwg					M5N-AJV-DPK-700-300-RD-7000	Sydney Motorway Corporation | WestConnex
DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL	SCALES ON A3 SIZE DRAWING	
M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES	SCALE 1:500 (5 0 5 10) AT A3	
					CO-ORDINATE SYSTEM: MGA ZONE 56 — HEIGHT DATUM: AHD	

WestConnex New M5 — CPB CONTRACTORS | DRAGADOS | SAMSUNG C&T | AJJV | Golder Associates | HASSELL
AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
5/07/2017 2:16:27 PM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-7107

WESTCONNEX NEW M5 — A3

ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY
PLAN

SHEET 7 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7107	00

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED 50mm ON A3 SIZE ORIGINAL

FROM MARRICKVILLE

SYDNEY PARK

TO ALEXANDRIA

MEDIAN PLANTING
REFER TO PACKAGE
M5N-HSL-DPK-700-800-UD-7400

DRAINAGE SWALE
REFER TO PACKAGE
M5N-AJV-DPK-700-300-DR-7025

4
RD-7052

850 875 900 925 950 975 1000

TP30.000
25

ADJOINS M5N-AJV-DWG-700-300-RD-7107

ADJOINS M5N-AJV-DWG-700-300-RD-7109

M7Q0

M7R0

TP0.000
0

CAMPBELL ROAD

CAMPBELL LANE

TP992.565

WOODLEY STREET

DRAINAGE SWALE
REFER TO PACKAGE
M5N-AJV-DPK-700-300-DR-7025

CAMPBELL LANE CLOSED

WOODLEY STREET CLOSED

KEY PLAN

BEDWIN ROAD, MAY STREET, PRINCES HIGHWAY, EUSTON ROAD, ROAD, CAMPBELL ROAD, BURROWS, GARDENERS RD

NOTE
FOR NOTES AND LEGEND REFER TO SHEET RD-7101.

ACCEPTED FOR CONSTRUCTION

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED | 50mm ON A3 SIZE ORIGINAL

DRAWING FILE LOCATION \ NAME
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DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING: M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT

REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7000

SCALES ON A3 SIZE DRAWING
SCALE 1:500 5 0 5 10 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME: 5/07/2017 2:16:38 PM
PLOT BY: gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT
Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-7108

WESTCONNEX NEW M5

A3

ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY
PLAN

SHEET 8 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7108	00

FROM MARRICKVILLE

HARBER STREET

SYDNEY PARK

EXISTING FOOTPATH WITHIN SYDNEY PARK

RETAINING WALL WITH MODIFIED LEDA REDFERN FENCE ON TOP OF WALL OR APPROVED EQUIVALENT. REFER TO M5N-AJV-DPK-700-400-RW-7130

ADJOINS M5N-AJV-DWG-700-300-RD-7119

EUSTON ROAD

TO ALEXANDRIA

RAISED THRESHOLD CROSSING IN ACCORDANCE WITH CITY OF SYDNEY SPECIFICATION. PCTC RAISED PLATFORM-CONCRETE DRAWINGS No. 3.2.2

TP30.000

MATCH TO EXISTING KERB

EXTENT OF WORKS

MATCH TO EXISTING KERB

MATCH TO EXISTING FOOTPATH

MATCH TO EXISTING FOOTPATH

TP1034.499

CAMPBELL ROAD

ADJOINS M5N-AJV-DWG-700-300-RD-7108

TP0.000

M7Q0

M7R0

ADJOINS M5N-AJV-DWG-700-300-RD-7110

CAMPBELL LANE

TP992.565

DRAINAGE SWALE REFER TO PACKAGE M5N-AJV-DPK-700-300-DR-7025

CAMPBELL LANE CLOSED

HARBER STREET

HARBER STREET CLOSED SOUTH OF CAMPBELL ROAD

EXTENT OF WORKS

TRAFFIC CONTROL SIGNALS REFER TO PACKAGE M5N-AJV-DPK-700-300-TM-7080

ADJOINS M5N-AJV-DWG-700-300-RD-7118

ST PETERS INTERCHANGE REFER PACKAGE M5N-AJV-DPK-900-300-RD-9000

KEY PLAN

NOTE
FOR NOTES AND LEGEND REFER TO SHEET RD-7101.

ACCEPTED FOR CONSTRUCTION

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED

DRAWING FILE LOCATION \ NAME					PROJECT BREAKDOWN STRUCTURE	DOCUMENT NUMBER
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DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL	SCALES ON A3 SIZE DRAWING	WESTCONNEX NEW M5 / ST PETERS LOCAL ROADS - CAMPBELL ROAD ROAD GEOMETRY PLAN — A3
M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES	SCALE 1:500 (5 0 5 10) AT A3	SHEET 9 OF 21
					CO-ORDINATE SYSTEM: MGA ZONE 56 — HEIGHT DATUM: AHD	RMS REGISTRATION No. DS2016/002598

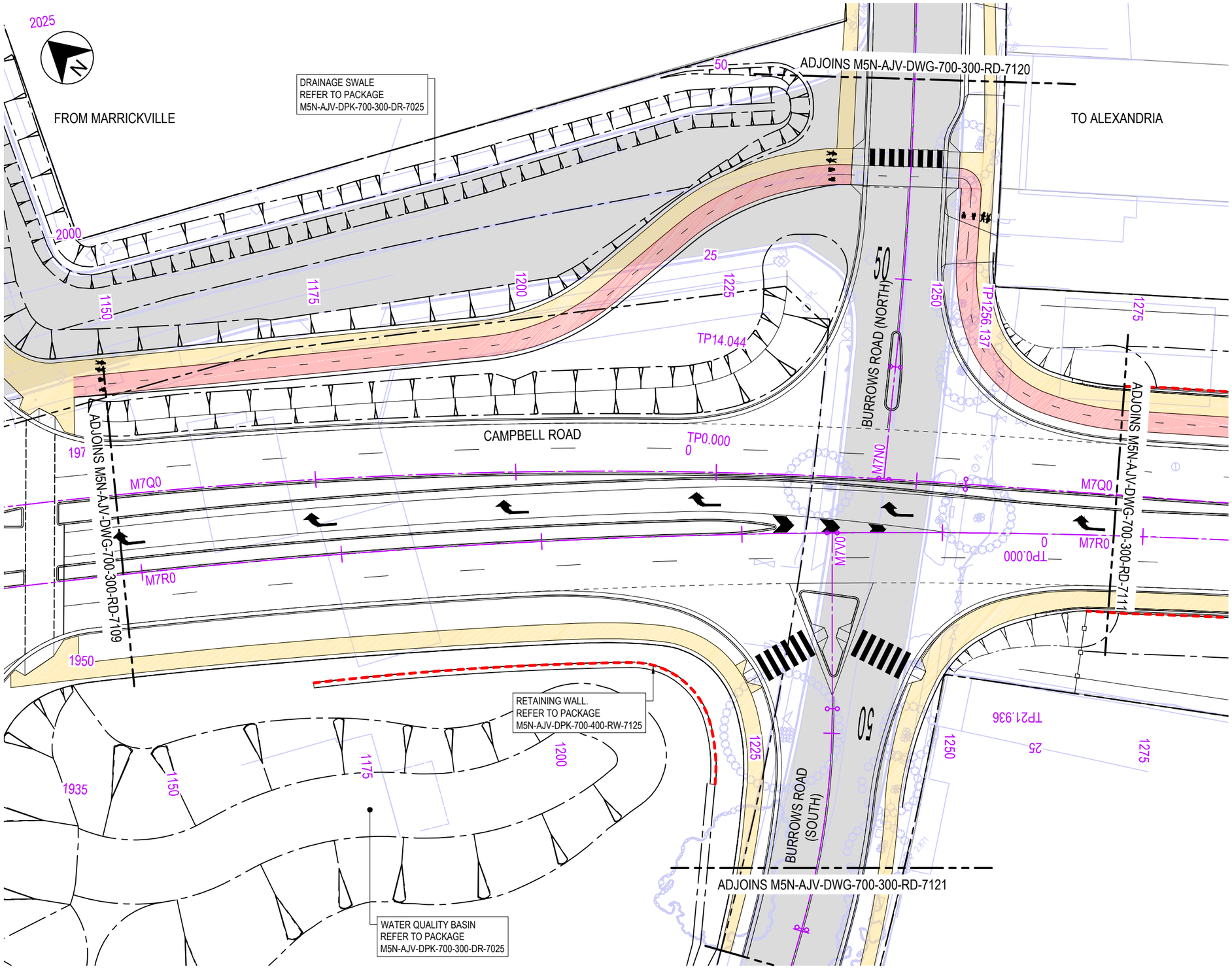
AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
5/07/2017 2:16:49 PM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT: Sydney Motorway Corporation | WestConnex

ISSUE STATUS: ISSUED FOR CONSTRUCTION | EDMS No. | SHEET No. RD-7109 | REV 00

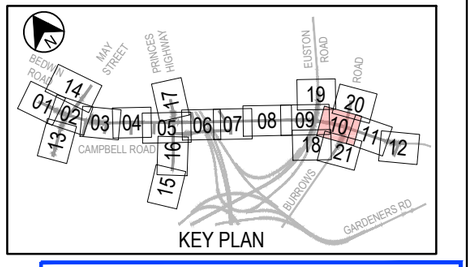


LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORKS BOUNDARY
- SURVEY
- CADASTRAL
- FUTURE WORKS (BY OTHERS)
- RETAINING WALL
- PEDESTRIAN FENCE
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- BRIDGE
- CUT AND COVER STRUCTURE
- FOOTPATH
- SHARED USE PATH
- BICYCLE LANE - OFF ROAD
- CYCLEWAY - ON ROAD
- CARPARK
- PARKING BAY

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-7005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7600.
4. FOR PROPERTY ADJUSTMENTS REFER TO PACKAGE M5N-AJV-DPK-700-300-PA-7195.



KEY PLAN

ACCEPTED FOR CONSTRUCTION

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-7110

DRAWING FILE LOCATION \ NAME
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DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7000

SCALES ON A3 SIZE DRAWING
SCALE 1:500 5 0 5 10 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

HASSELL

PLOT DATE / TIME: 5/07/2017 2:16:59 PM
PLOT BY: gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT
Sydney Motorway Corporation | WestConnex

WESTCONNEX NEW M5 — A3
ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY
PLAN
SHEET 10 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7110	00

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED
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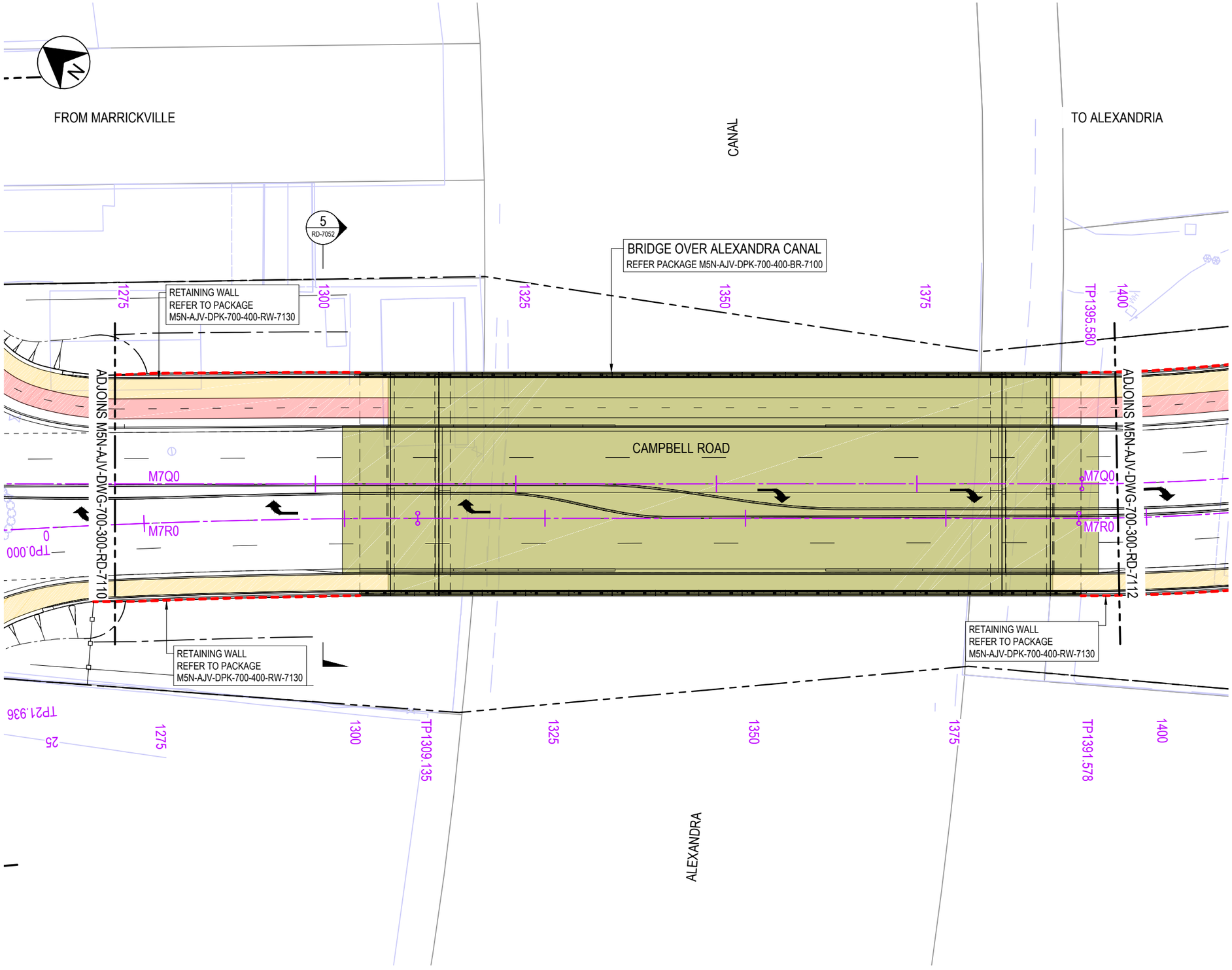
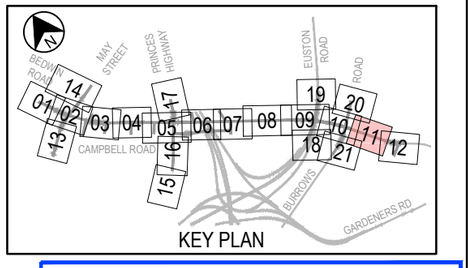


LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORKS BOUNDARY
- SURVEY
- CADASTRAL
- FUTURE WORKS (BY OTHERS)
- RETAINING WALL
- PEDESTRIAN FENCE
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- BRIDGE
- CUT AND COVER STRUCTURE
- FOOTPATH
- SHARED USE PATH
- BICYCLE LANE - OFF ROAD
- CYCLEWAY - ON ROAD
- CARPARK
- PARKING BAY

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-7005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7600.
4. FOR PROPERTY ADJUSTMENTS REFER TO PACKAGE M5N-AJV-DPK-700-300-PA-7195.



KEY PLAN

ACCEPTED FOR CONSTRUCTION

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED

0 5 10 15 20 25 30 35 40 45 50mm ON A3 SIZE ORIGINAL

DRAWING FILE LOCATION \ NAME C:\pw_work\gomezc2\anz_prod\d0262144\M5N-AJV-DWG-700-300-RD-7101-7121.dwg				
DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7000

SCALES ON A3 SIZE DRAWING

SCALE 1:500 5 0 5 10 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
5/07/2017 2:17:09 PM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT
Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-7111

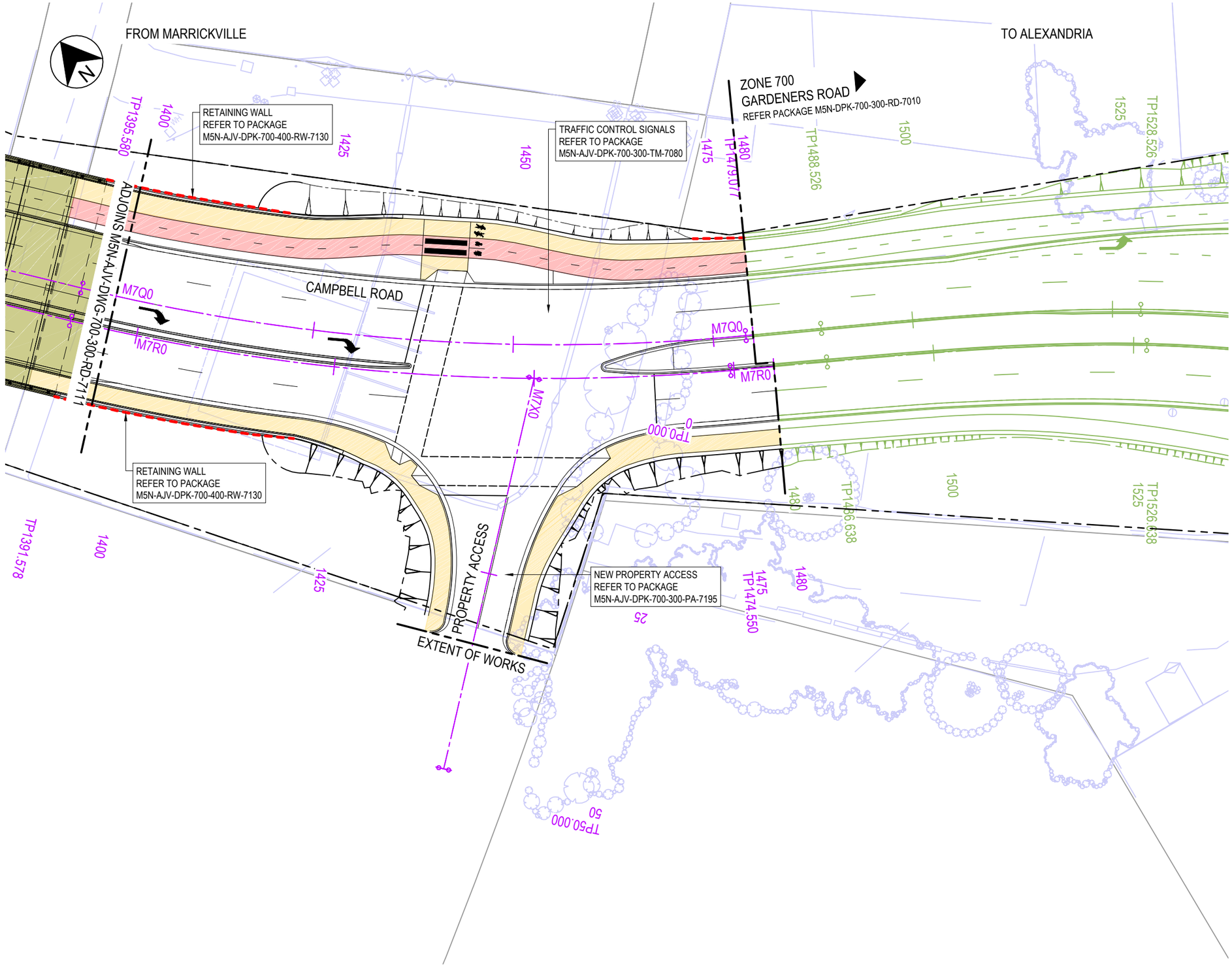
WESTCONNEX NEW M5 — A3

ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY
PLAN

SHEET 11 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7111	00

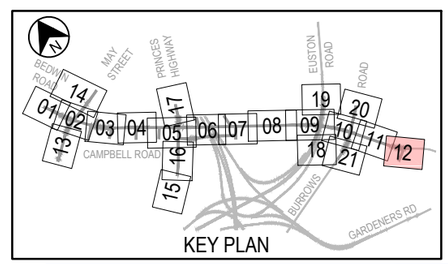


LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORKS BOUNDARY
- SURVEY
- CADASTRAL
- FUTURE WORKS (BY OTHERS)
- RETAINING WALL
- PEDESTRIAN FENCE
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- BRIDGE
- CUT AND COVER STRUCTURE
- FOOTPATH
- SHARED USE PATH
- BICYCLE LANE - OFF ROAD
- CYCLEWAY - ON ROAD
- CARPARK
- PARKING BAY

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-7005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7600.
4. FOR PROPERTY ADJUSTMENTS REFER TO PACKAGE M5N-AJV-DPK-700-300-PA-7195.



KEY PLAN

ACCEPTED FOR CONSTRUCTION

DRAWING FILE LOCATION \ NAME				
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DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES

PROJECT BREAKDOWN STRUCTURE: M5N-AJV-DPK-700-300-RD-7000

SCALES ON A3 SIZE DRAWING: SCALE 1:500 (5 0 5 10) AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56 — HEIGHT DATUM: AHD

AUREGON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
5/07/2017 2:17:20 PM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT: Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER: M5N-AJV-DWG-700-300-RD-7112

WESTCONNEX NEW M5

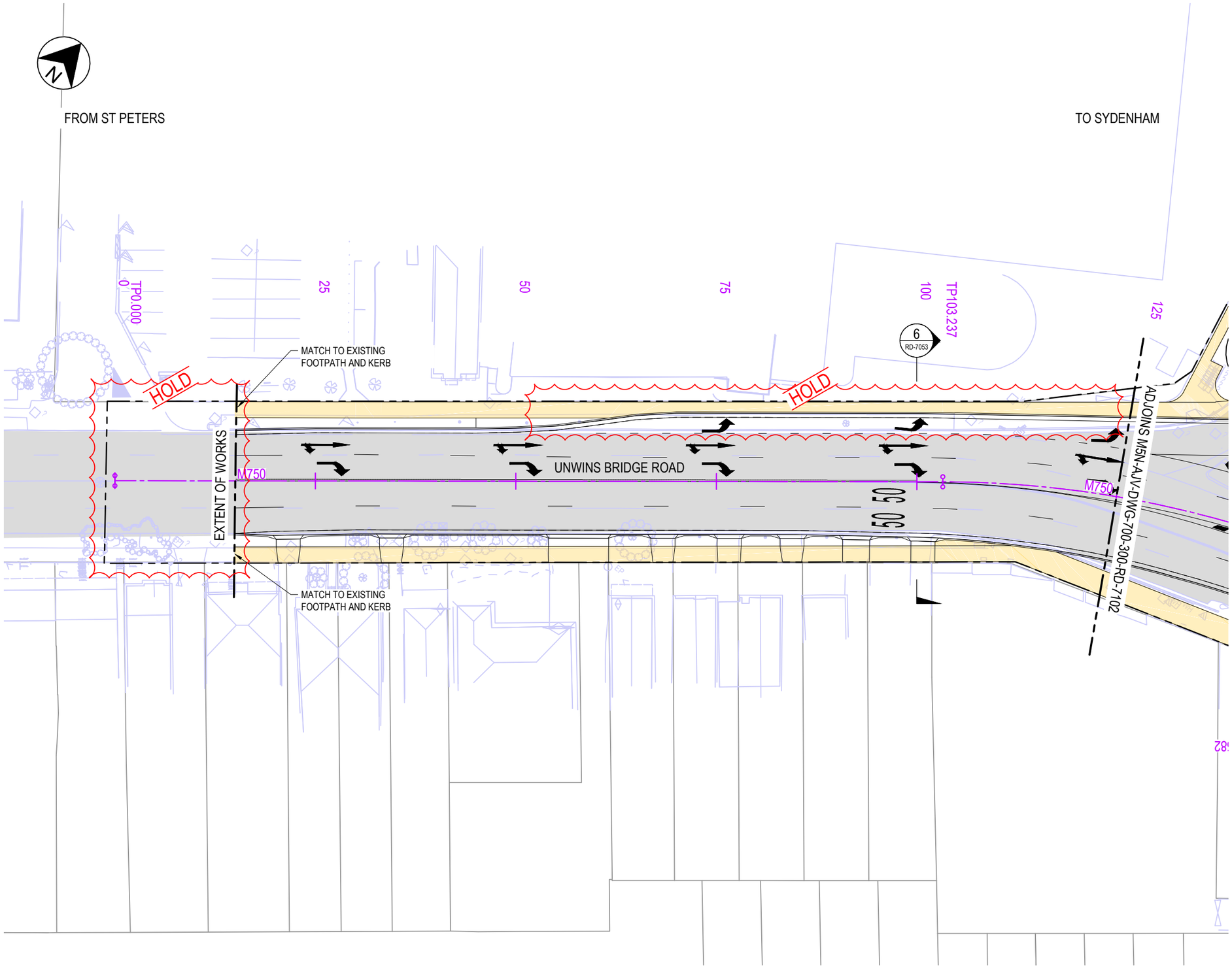
A3

ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY
PLAN

SHEET 12 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7112	00

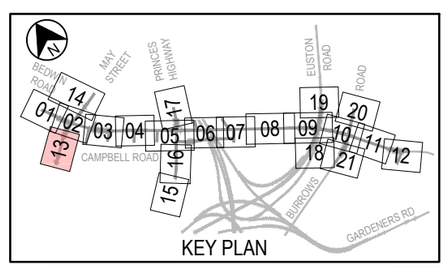


LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORKS BOUNDARY
- SURVEY
- CADASTRAL
- FUTURE WORKS (BY OTHERS)
- RETAINING WALL
- PEDESTRIAN FENCE
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- BRIDGE
- CUT AND COVER STRUCTURE
- FOOTPATH
- SHARED USE PATH
- BICYCLE LANE - OFF ROAD
- CYCLEWAY - ON ROAD
- CARPARK
- PARKING BAY

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-7005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7600.
4. FOR PROPERTY ADJUSTMENTS REFER TO PACKAGE M5N-AJV-DPK-700-300-PA-7195.



KEY PLAN

ACCEPTED FOR CONSTRUCTION

DRAWING FILE LOCATION \ NAME: C:\pw_work\gomezc2\anz_prod\d0262144\M5N-AJV-DWG-700-300-RD-7101-7121.dwg				
DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES

PROJECT BREAKDOWN STRUCTURE: M5N-AJV-DPK-700-300-RD-7000

SCALES ON A3 SIZE DRAWING: SCALE 1:500 (5 0 5 10) AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56 — HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
5/07/2017 2:17:30 PM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT: Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER: M5N-AJV-DWG-700-300-RD-7113

WESTCONNEX NEW M5

A3

ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY
PLAN

SHEET 13 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7113	00

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED
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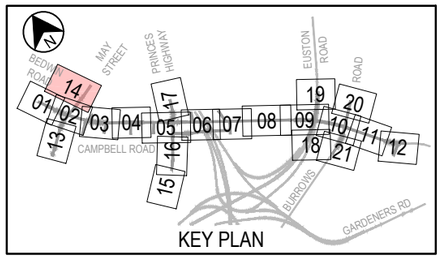

KEY PLAN

NOTE

FOR NOTES AND LEGEND REFER TO SHEET RD-7101.

CAMDENVILLE PARK

LOT 9
DP879483
CAMDENVILLE PARK
63 MAY STREET

CAMDENVILLE PARK
DETENTION BASIN

ADJOINS M5N-AJV-DWG-700-300-RD-7101

ADJOINS M5N-AJV-DWG-700-300-RD-7102

TP325.500
325

300

TP275.536
275

250

225

TP221.350

MAY STREET

M750

EXTENT OF WORKS

MATCH TO EXISTING
FOOTPATH AND KERB

MATCH TO EXISTING
FOOTPATH AND KERB

7
RD-7053

ACCEPTED FOR CONSTRUCTION

DRAWING FILE LOCATION \ NAME				
C:\pw_work\gomezc2\anz_prod\d0262144\M5N-AJV-DWG-700-300-RD-7101-7121.dwg				
DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES

PROJECT BREAKDOWN STRUCTURE: M5N-AJV-DPK-700-300-RD-7000

SCALES ON A3 SIZE DRAWING

SCALE 1:500 5 0 5 10 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56

HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
5/07/2017 2:17:41 PM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT: Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER: M5N-AJV-DWG-700-300-RD-7114

WESTCONNEX NEW M5

A3

ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY
PLAN

SHEET 14 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7114	00

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED
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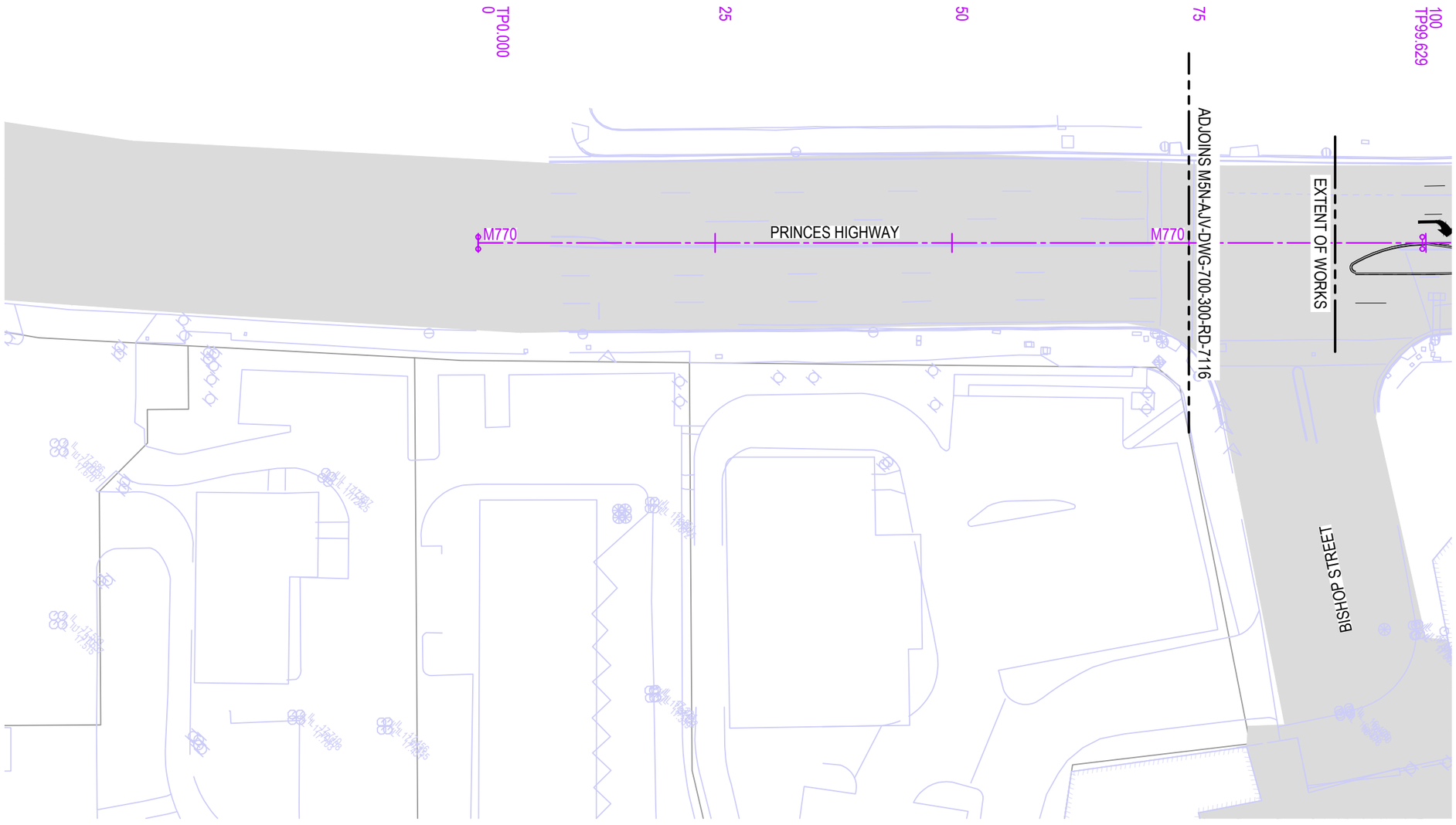
FROM TEMPE

TO ST PETERS

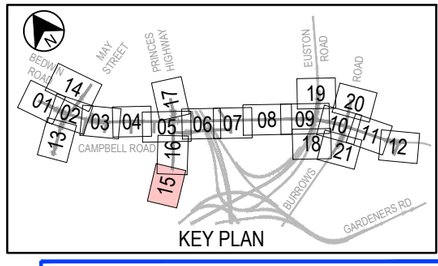


LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORKS BOUNDARY
- SURVEY
- CADASTRAL
- FUTURE WORKS (BY OTHERS)
- RETAINING WALL
- PEDESTRIAN FENCE
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- BRIDGE
- CUT AND COVER STRUCTURE
- FOOTPATH
- SHARED USE PATH
- BICYCLE LANE - OFF ROAD
- CYCLEWAY - ON ROAD
- CARPARK
- PARKING BAY

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-7005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7600.
4. FOR PROPERTY ADJUSTMENTS REFER TO PACKAGE M5N-AJV-DPK-700-300-PA-7195.



KEY PLAN

ACCEPTED FOR CONSTRUCTION

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED

50mm ON A3 SIZE ORIGINAL

DRAWING FILE LOCATION \ NAME
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M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7000

SCALES ON A3 SIZE DRAWING
SCALE 1:500 5 0 5 10 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
5/07/2017 2:17:50 PM	gomezc2

	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT: Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-7115

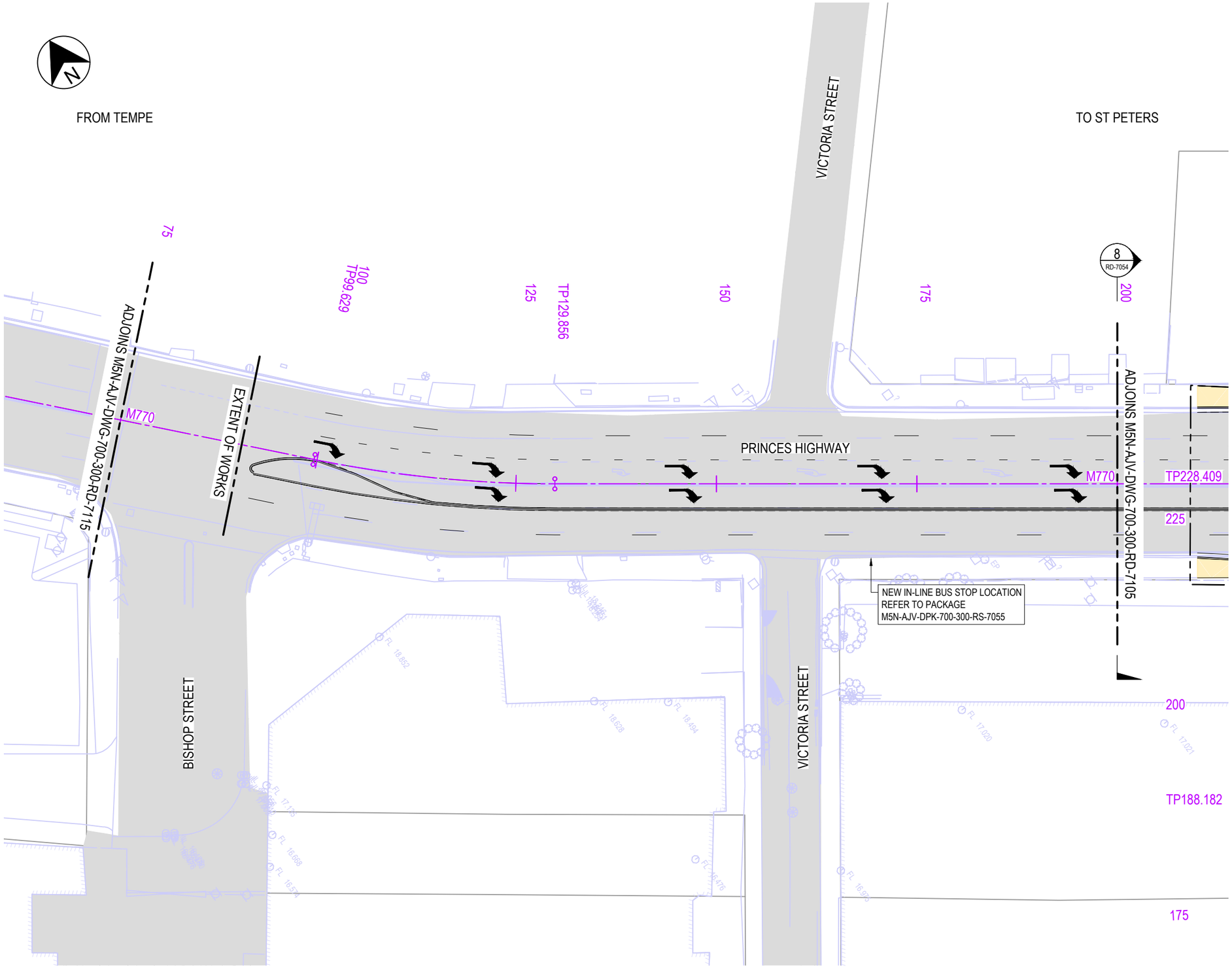
WESTCONNEX NEW M5 — A3

ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY
PLAN

SHEET 15 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7115	00

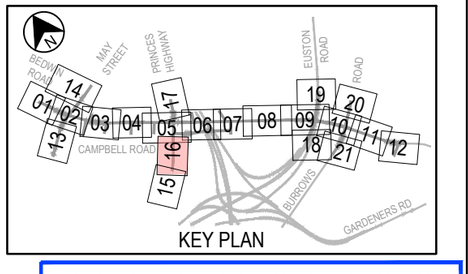


LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORKS BOUNDARY
- SURVEY
- CADASTRAL
- FUTURE WORKS (BY OTHERS)
- RETAINING WALL
- PEDESTRIAN FENCE
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- BRIDGE
- CUT AND COVER STRUCTURE
- FOOTPATH
- SHARED USE PATH
- BICYCLE LANE - OFF ROAD
- CYCLEWAY - ON ROAD
- CARPARK
- PARKING BAY

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-7005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7600.
4. FOR PROPERTY ADJUSTMENTS REFER TO PACKAGE M5N-AJV-DPK-700-300-PA-7195.



KEY PLAN

ACCEPTED FOR CONSTRUCTION

DRAWING FILE LOCATION \ NAME
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M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7000

SCALES ON A3 SIZE DRAWING
SCALE 1:500 5 0 5 10 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
5/07/2017 2:18:02 PM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT
Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-7116

WESTCONNEX NEW M5 — A3

ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY
PLAN

SHEET 16 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7116	00

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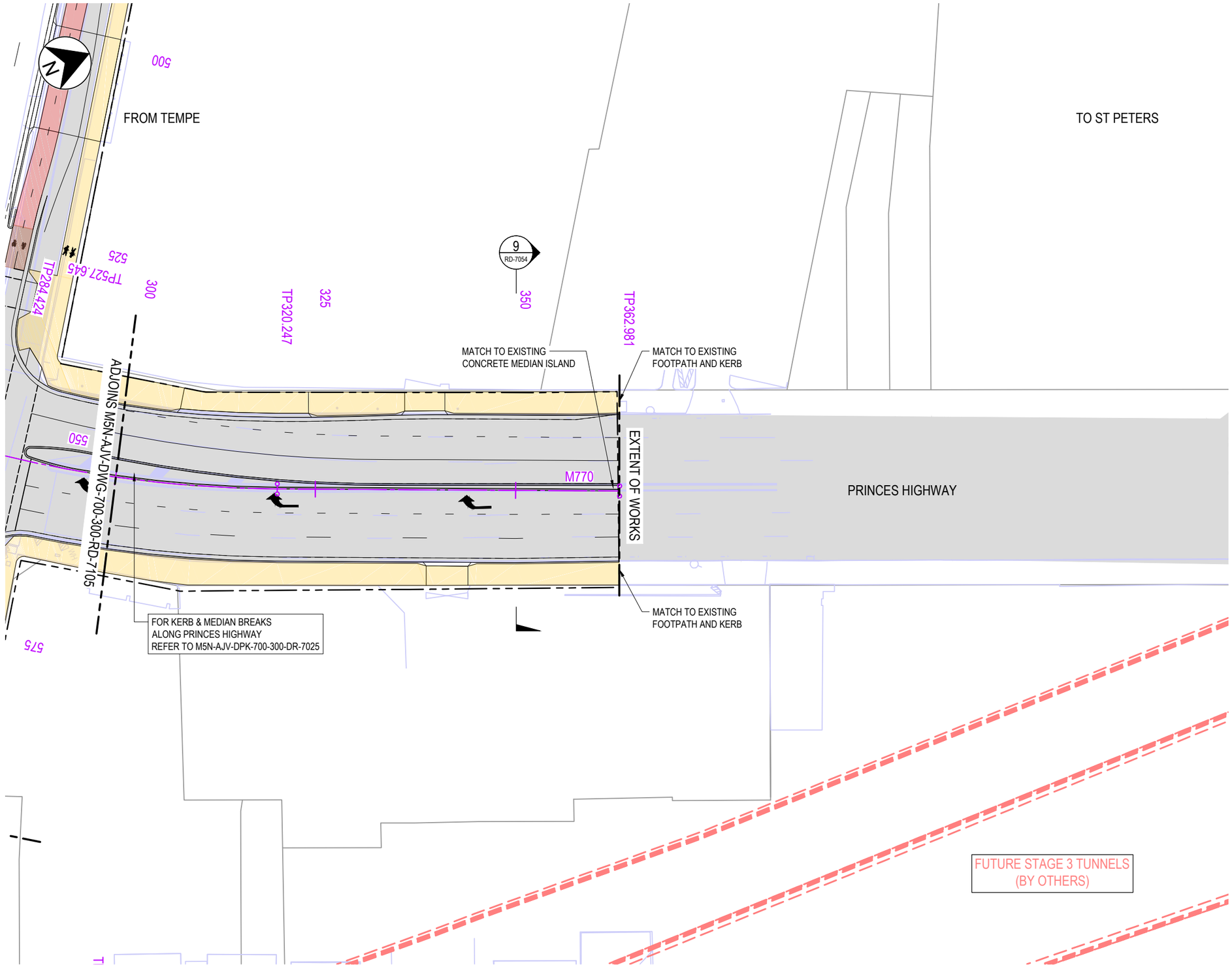

LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORKS BOUNDARY
- SURVEY
- CADASTRAL
- FUTURE WORKS (BY OTHERS)
- RETAINING WALL
- PEDESTRIAN FENCE
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- BRIDGE
- CUT AND COVER STRUCTURE
- FOOTPATH
- SHARED USE PATH
- BICYCLE LANE - OFF ROAD
- CYCLEWAY - ON ROAD
- CARPARK
- PARKING BAY

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-7005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
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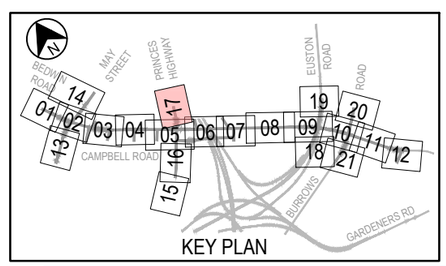
4. FOR PROPERTY ADJUSTMENTS REFER TO PACKAGE M5N-AJV-DPK-700-300-PA-7195.



KEY PLAN

ACCEPTED FOR CONSTRUCTION

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-7117

WESTCONNEX NEW M5 — A3

ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY
PLAN

SHEET 17 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7117	00

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M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7000

SCALES ON A3 SIZE DRAWING
SCALE 1:500 (5 0 5 10)
AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5
AUREON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME: 5/07/2017 2:18:12 PM
PLOT BY: gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT
Sydney Motorway Corporation | WestConnex

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED
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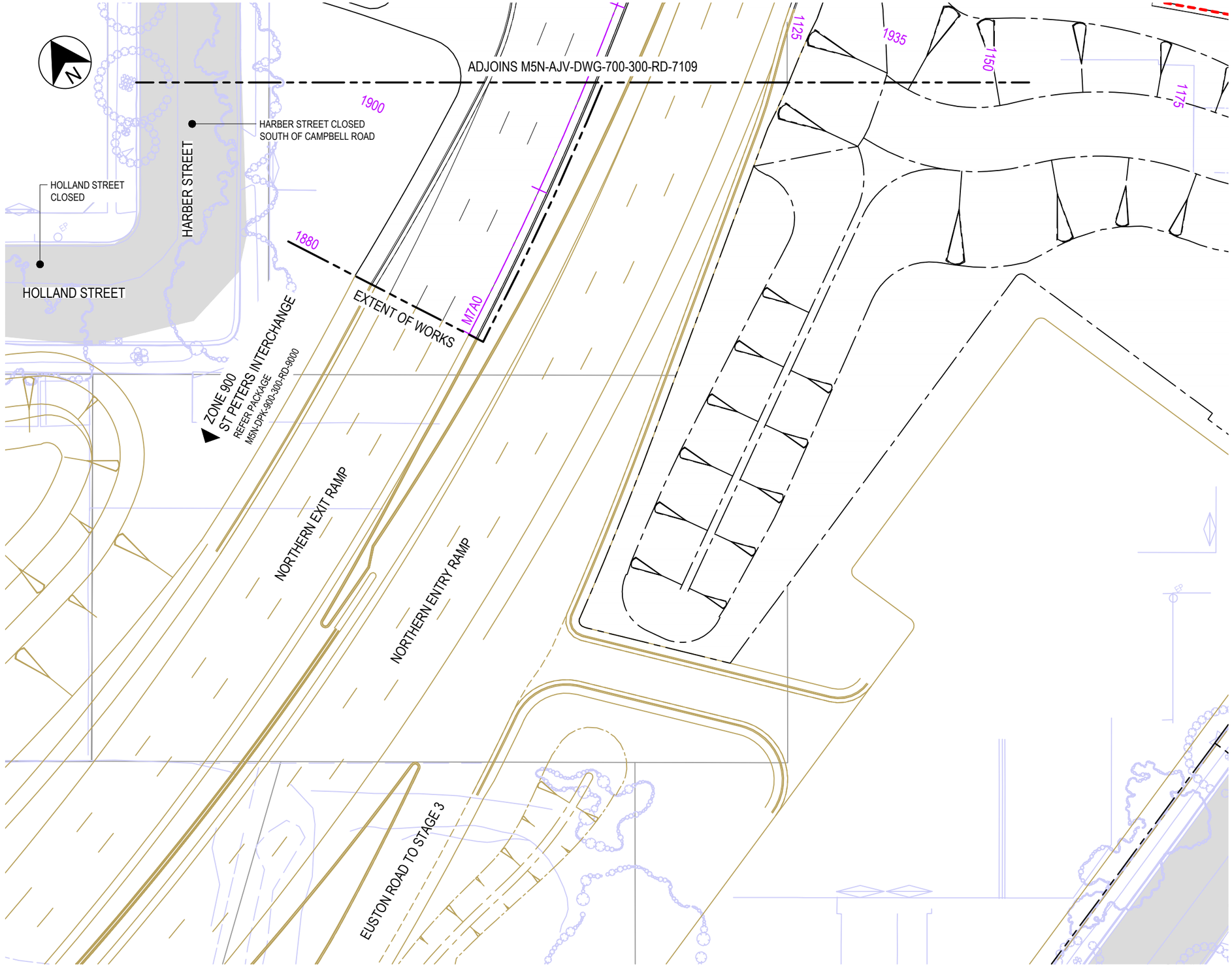
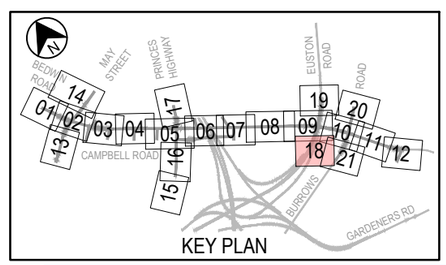


LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORKS BOUNDARY
- SURVEY
- CADASTRAL
- FUTURE WORKS (BY OTHERS)
- RETAINING WALL
- PEDESTRIAN FENCE
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- BRIDGE
- CUT AND COVER STRUCTURE
- FOOTPATH
- SHARED USE PATH
- BICYCLE LANE - OFF ROAD
- CYCLEWAY - ON ROAD
- CARPARK
- PARKING BAY

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-7005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7600.
4. FOR PROPERTY ADJUSTMENTS REFER TO PACKAGE M5N-AJV-DPK-700-300-PA-7195.



KEY PLAN

ACCEPTED FOR CONSTRUCTION

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-7118

DRAWING FILE LOCATION \ NAME
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M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7000

SCALES ON A3 SIZE DRAWING
SCALE 1:500 (5 0 5 10 AT A3)

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AUREGON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME: 5/07/2017 2:18:22 PM
PLOT BY: gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT: Sydney Motorway Corporation | WestConnex

WESTCONNEX NEW M5

A3

ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY
PLAN

SHEET 18 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS: ISSUED FOR CONSTRUCTION
EDMS No.:
SHEET No.: RD-7118
REV: 00

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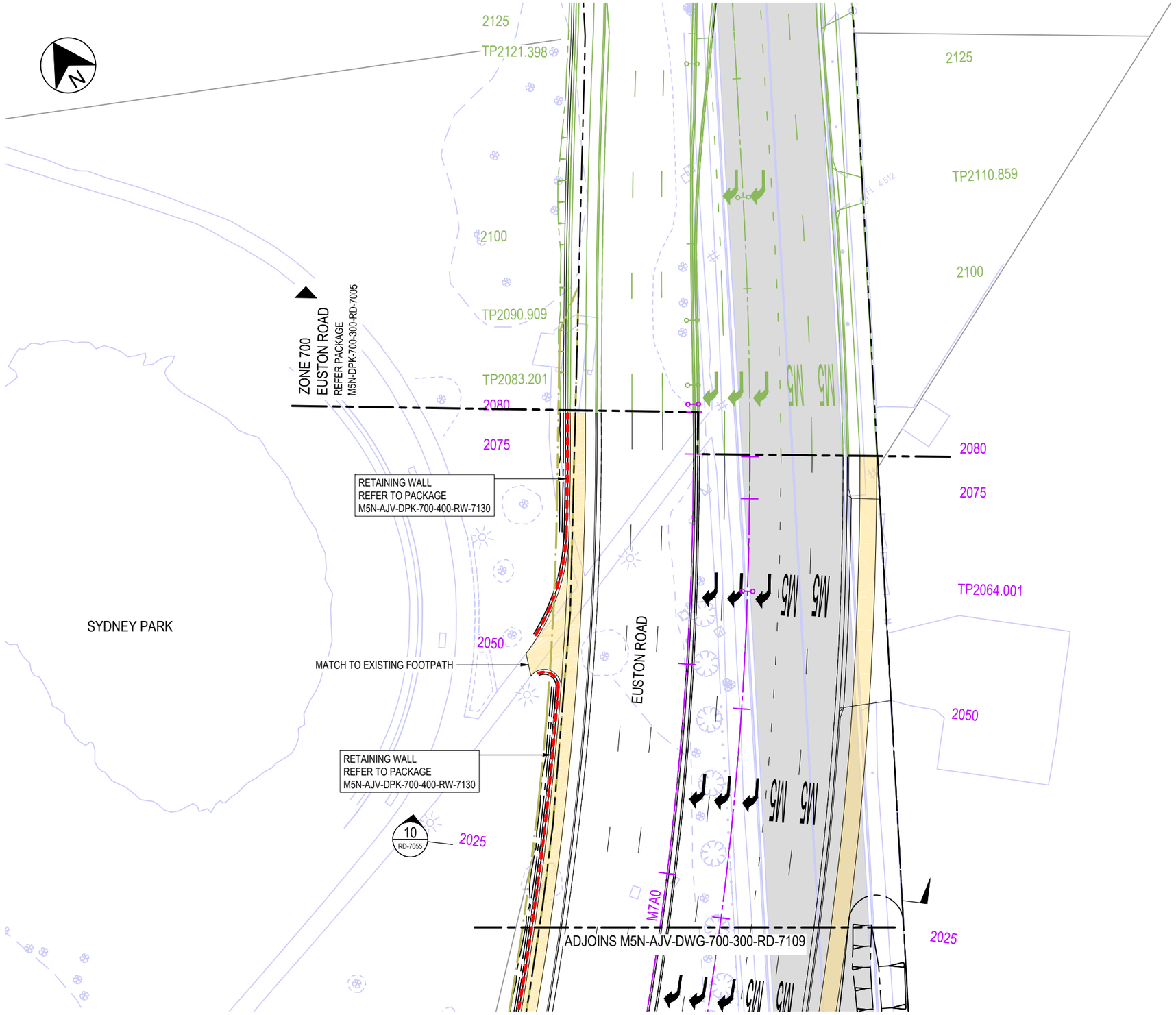
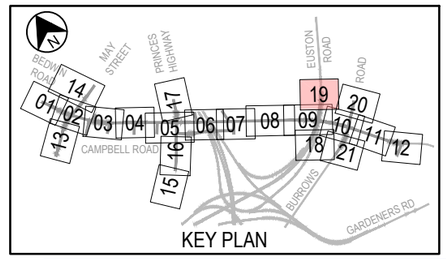


LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORKS BOUNDARY
- SURVEY
- CADASTRAL
- FUTURE WORKS (BY OTHERS)
- RETAINING WALL
- PEDESTRIAN FENCE
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- BRIDGE
- CUT AND COVER STRUCTURE
- FOOTPATH
- SHARED USE PATH
- BICYCLE LANE - OFF ROAD
- CYCLEWAY - ON ROAD
- CARPARK
- PARKING BAY

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-7005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7600.
4. FOR PROPERTY ADJUSTMENTS REFER TO PACKAGE M5N-AJV-DPK-700-300-PA-7195.



KEY PLAN

ACCEPTED FOR CONSTRUCTION

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PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7000

SCALES ON A3 SIZE DRAWING
SCALE 1:500 5 0 5 10 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
5/07/2017 4:21:12 PM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT
Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-7119

WESTCONNEX NEW M5

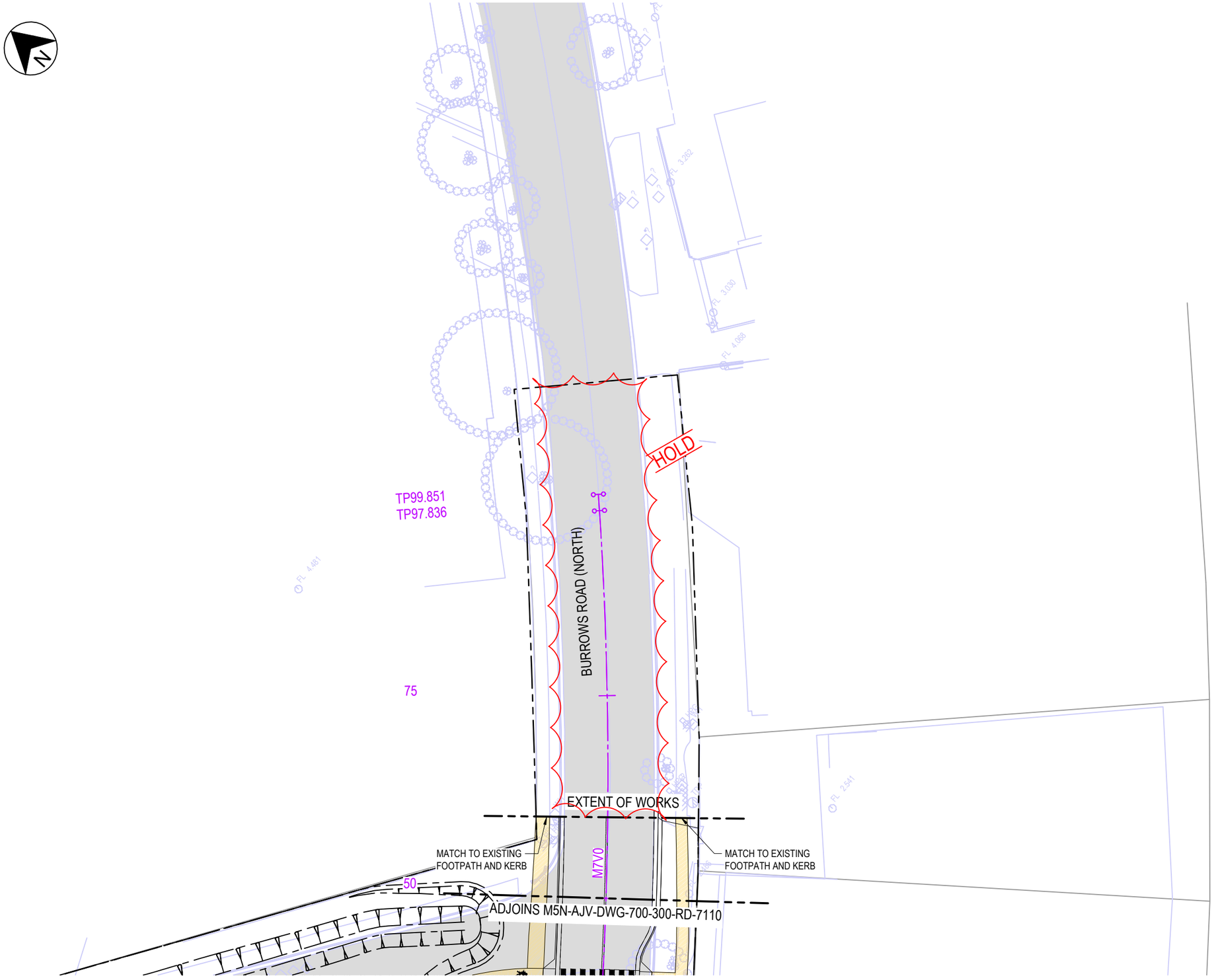
A3

ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY
PLAN

SHEET 19 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7119	00

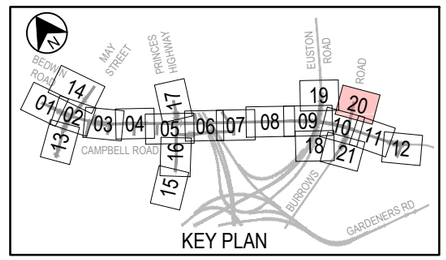


LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORKS BOUNDARY
- SURVEY
- CADASTRAL
- FUTURE WORKS (BY OTHERS)
- RETAINING WALL
- PEDESTRIAN FENCE
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- BRIDGE
- CUT AND COVER STRUCTURE
- FOOTPATH
- SHARED USE PATH
- BICYCLE LANE - OFF ROAD
- CYCLEWAY - ON ROAD
- CARPARK
- PARKING BAY

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-7005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7600.
4. FOR PROPERTY ADJUSTMENTS REFER TO PACKAGE M5N-AJV-DPK-700-300-PA-7195.



KEY PLAN

ACCEPTED FOR CONSTRUCTION

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M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7000

SCALES ON A3 SIZE DRAWING
SCALE 1:500 5 0 5 10 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
5/07/2017 2:18:42 PM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT
Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-7120

WESTCONNEX NEW M5

A3

ST PETERS LOCAL ROADS - CAMPBELL ROAD
ROAD GEOMETRY
PLAN

SHEET 20 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7120	00

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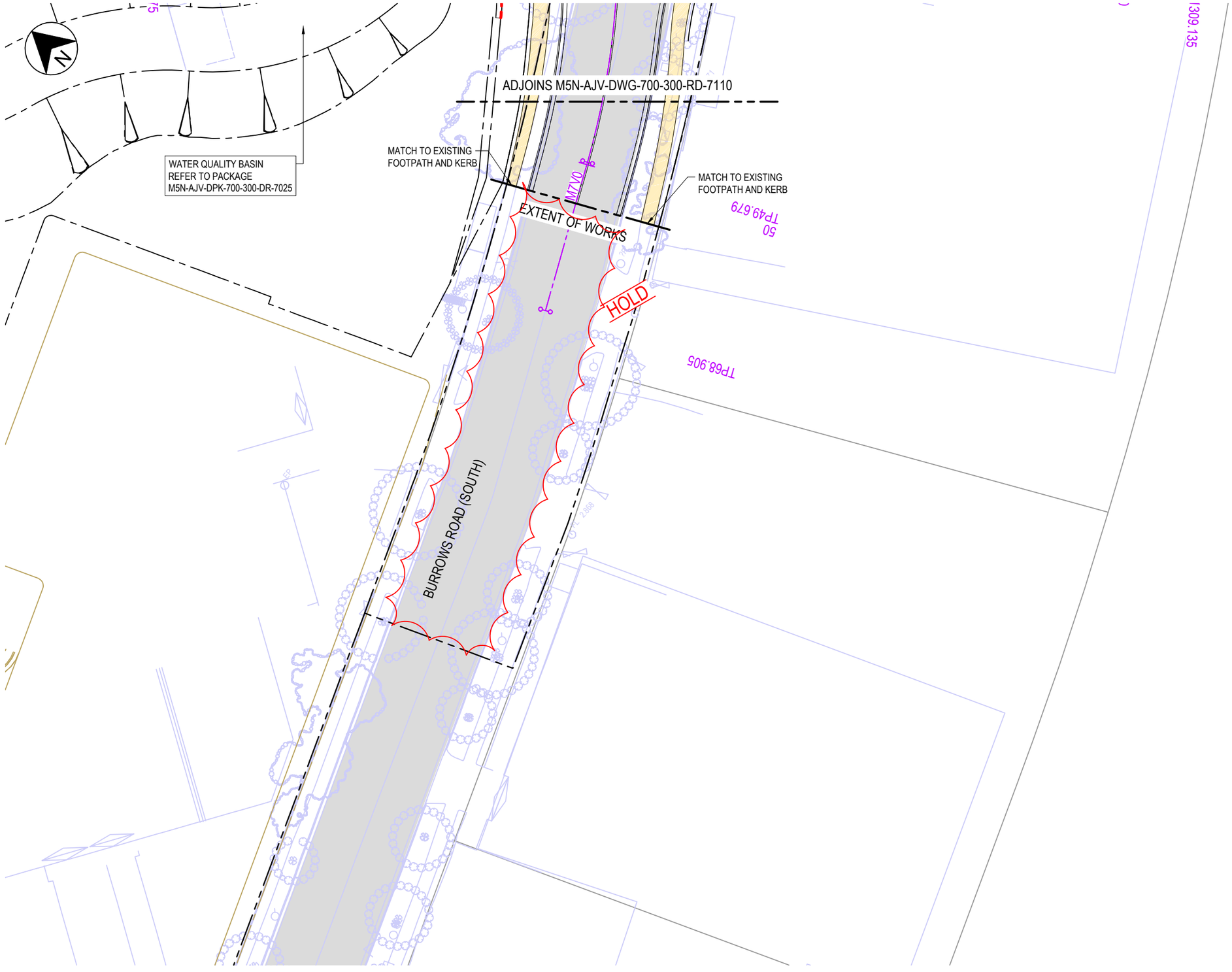

LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORKS BOUNDARY
- SURVEY
- CADASTRAL
- FUTURE WORKS (BY OTHERS)
- RETAINING WALL
- PEDESTRIAN FENCE
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
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- CYCLEWAY - ON ROAD
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NOTE

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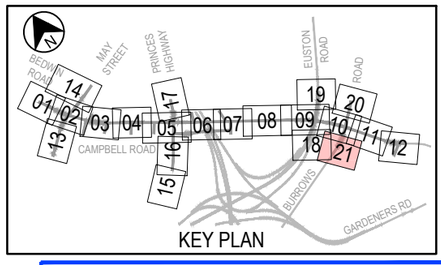

KEY PLAN

ACCEPTED FOR CONSTRUCTION

DRAWING FILE LOCATION \ NAME: C:\pw_work\gomezc2\anz_prod\d0262144\M5N-AJV-DWG-700-300-RD-7101-7121.dwg				
DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
M5N-AJV-MOD-700-300-RD-LOCAL S1_00.TXT	00	05.07.2017	ISSUED FOR CONSTRUCTION	R.DAVIES

PROJECT BREAKDOWN STRUCTURE: M5N-AJV-DPK-700-300-RD-7000

SCALES ON A3 SIZE DRAWING: SCALE 1:500 (5 0 5 10) AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56 — HEIGHT DATUM: AHD

WestConnex New M5

CPB CONTRACTORS | DRAGADOS | SAMSUNG C&T | aJJV | Golder Associates | HASSELL

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
5/07/2017 2:18:53 PM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	05.07.2017
DRG CHECK	I.HALLIBURTON	05.07.2017
DESIGN	D. GEERLINGS	05.07.2017
DESIGN CHECK	P.CHON	05.07.2017
ZONE MANAGER	F.BANNO	05.07.2017
DESIGN MANAGER	R.DAVIES	05.07.2017

CLIENT: Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER: M5N-AJV-DWG-700-300-RD-7121

WESTCONNEX NEW M5 — A3

ST PETERS LOCAL ROADS - CAMPBELL ROAD ROAD GEOMETRY PLAN

SHEET 21 OF 21

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
ISSUED FOR CONSTRUCTION		RD-7121	00

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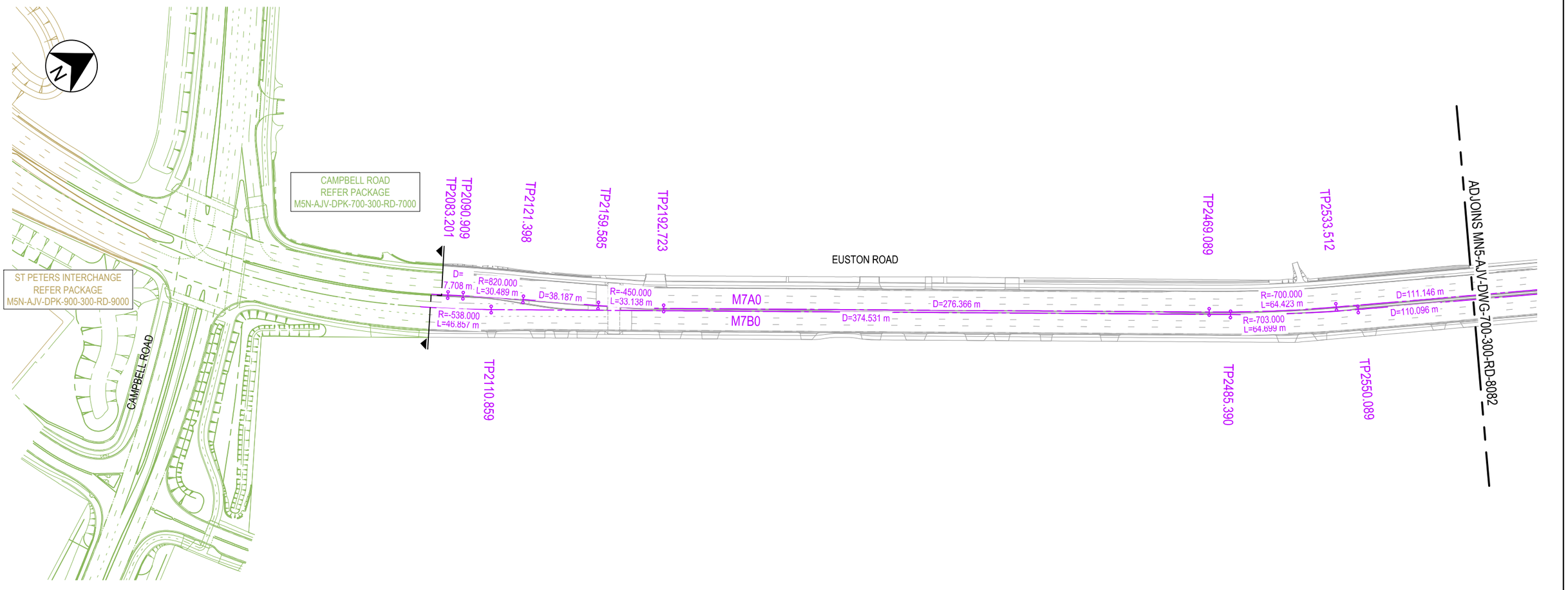
APPENDIX 2

Euston Road & Sydney Park Road intersection



NOT FOR CONSTRUCTION

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED
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REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
A	15.03.2016	DEVELOPED CONCEPT DESIGN	M.PERCIVAL
B	10.06.2016	SUBSTANTIAL DETAILED DESIGN	M.PERCIVAL
C	07.10.2016	FINAL DESIGN	M.PERCIVAL
D	16.06.2017	RE-ISSUED FOR FINAL DESIGN	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7005

SCALES ON A3 SIZE DRAWING
SCALE 1:2000 20 0 20 40 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5
AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME: 19/06/2017 9:35:07 AM
PLOT BY: gomezc2

	NAME	DATE
TITLE		
DRAWN	C.GOMEZ	16.06.2017
DRG CHECK	I.HALLIBURTON	16.06.2017
DESIGN	J.ANDERSEN	16.06.2017
DESIGN CHECK	P.CHON	16.06.2017
ZONE MANAGER	F.BANNO	16.06.2017
DESIGN MANAGER	R.DAVIES	16.06.2017

CLIENT
Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-8081

WESTCONNEX NEW M5

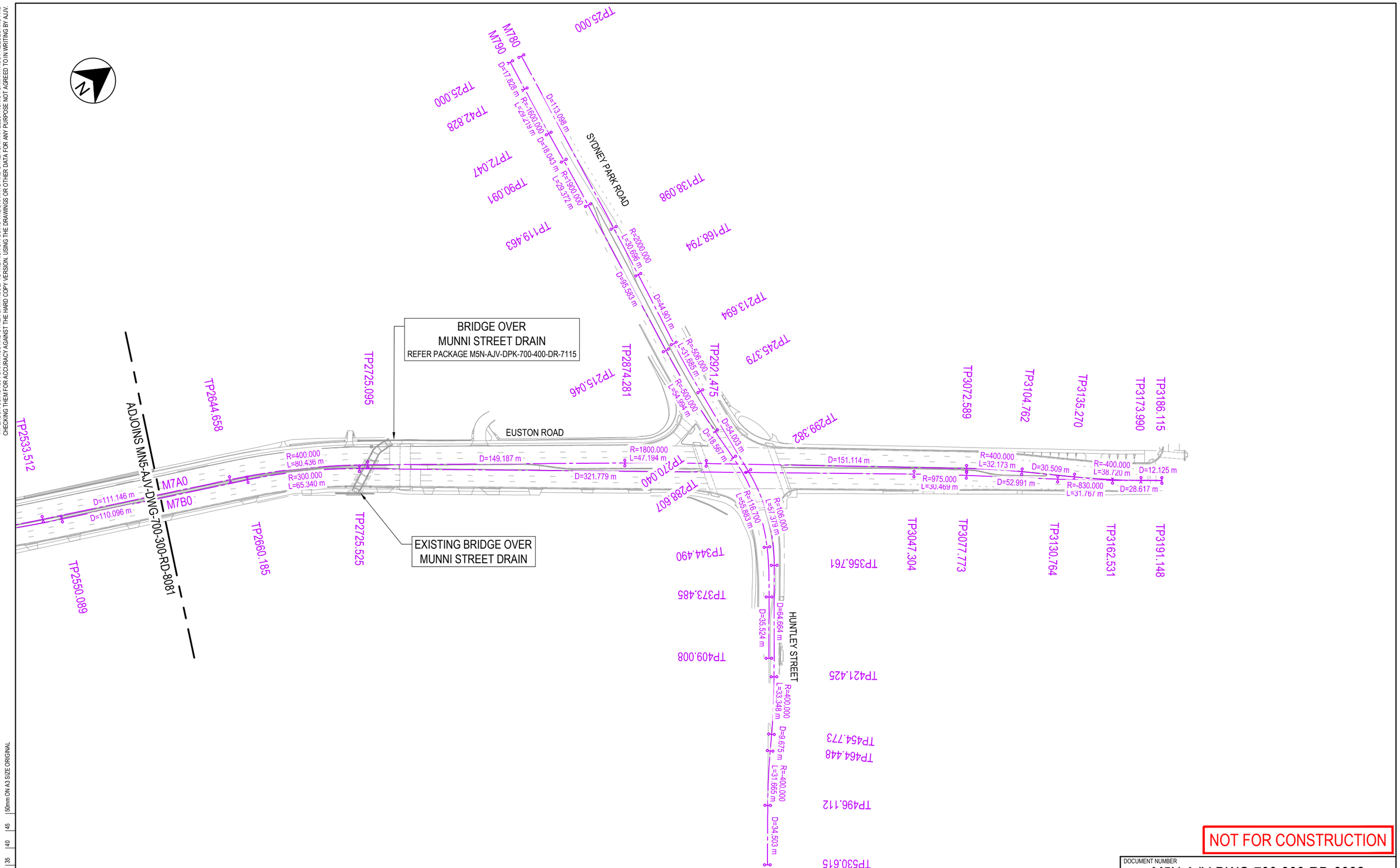
A3

ST PETERS LOCAL ROADS - EUSTON ROAD
ROAD GEOMETRY (Incl. ROAD FURNITURE)
ALIGNMENT CONTROL PLAN

SHEET 1 OF 2

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
FINAL DESIGN		RD-8081	D



NOT FOR CONSTRUCTION

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M5N-AJV-MOD-700-300-RD-LOCAL S2_D.TXT	A	15.03.2016	DEVELOPED CONCEPT DESIGN	M.PERCIVAL
	B	10.06.2016	SUBSTANTIAL DETAILED DESIGN	M.PERCIVAL
	C	07.10.2016	FINAL DESIGN	M.PERCIVAL
	D	16.06.2017	RE-ISSUED FOR FINAL DESIGN	R.DAVIES

PROJECT BREAKDOWN STRUCTURE: M5N-AJV-DPK-700-300-RD-7005

SCALES ON A3 SIZE DRAWING: SCALE 1:2000 (20 0 20 40) AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56 — HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
19/06/2017 9:35:09 AM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	16.06.2017
DRG CHECK	I.HALLIBURTON	16.06.2017
DESIGN	J.ANDERSEN	16.06.2017
DESIGN CHECK	P.CHON	16.06.2017
ZONE MANAGER	F.BANNO	16.06.2017
DESIGN MANAGER	R.DAVIES	16.06.2017

CLIENT: Sydney Motorway Corporation — WestConnex

DOCUMENT NUMBER: M5N-AJV-DWG-700-300-RD-8082

WESTCONNEX NEW M5

A3

ST PETERS LOCAL ROADS - EUSTON ROAD
ROAD GEOMETRY (Incl. ROAD FURNITURE)
ALIGNMENT CONTROL PLAN

SHEET 2 OF 2

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
FINAL DESIGN		RD-8082	D

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED
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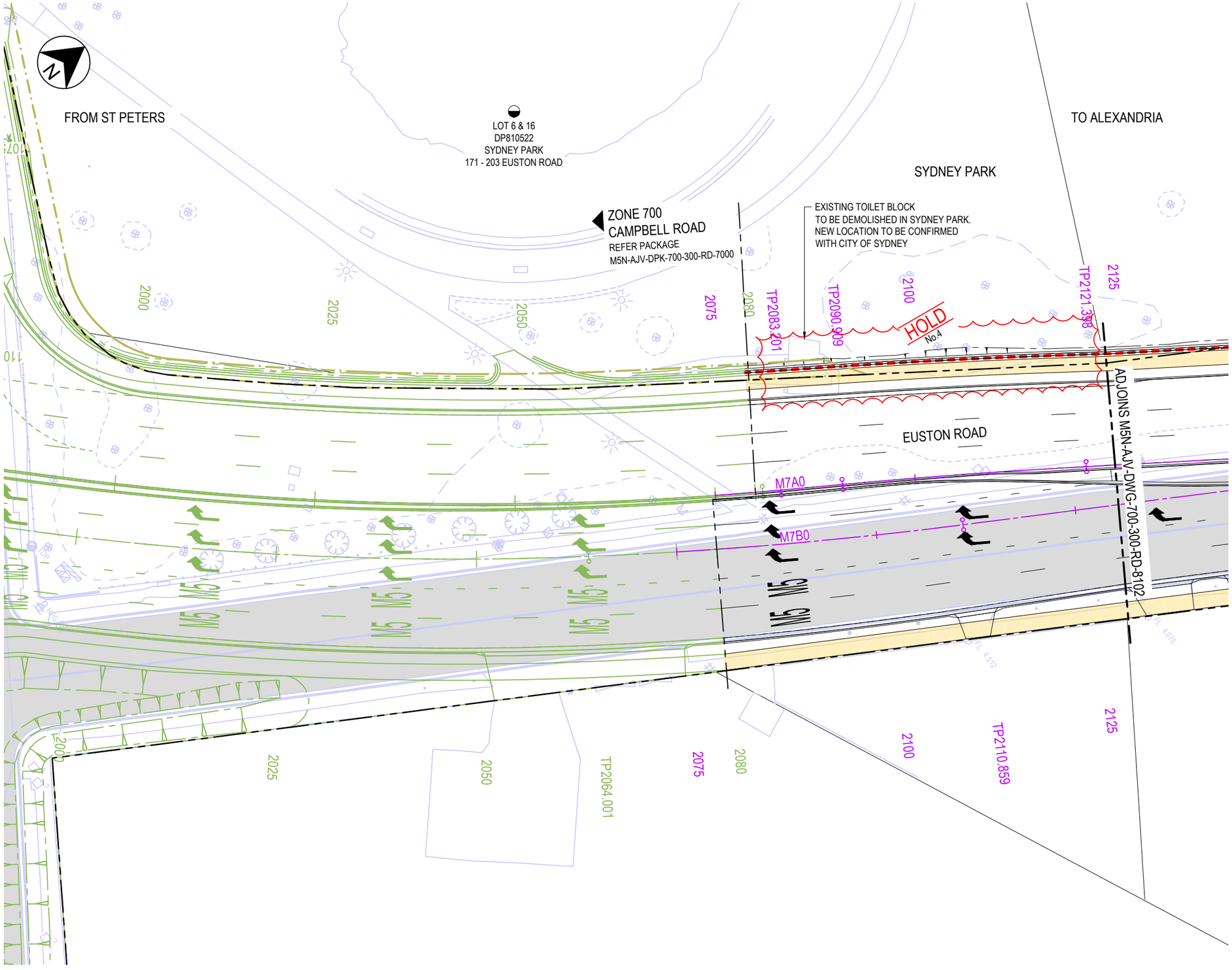
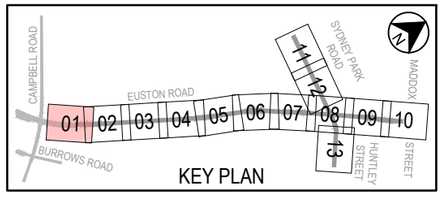


LEGEND

- PERMANENT WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- TEMPORARY WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- SURVEY
- CADASTRAL
- RMS PEDESTRIAN FENCE
- RETAINING WALL
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- EXISTING BRIDGE
- FOOTPATH
- SHARED USE PATH

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-8005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7605.
4. AREAS ENCLOSED WITH HOLD CLOUDS:
   - No.3: PENDING RESOLUTION OF CHANGE ORDER CH-0155
   - No.4: PENDING PURCHASE OF ADDITIONAL LAND



NOT FOR CONSTRUCTION

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DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING
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REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
A	15.03.2016	DEVELOPED CONCEPT DESIGN	M.PERCIVAL
B	10.06.2016	SUBSTANTIAL DETAILED DESIGN	M.PERCIVAL
C	07.10.2016	FINAL DESIGN	M.PERCIVAL
D	16.06.2017	RE-ISSUED FOR FINAL DESIGN	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7005

SCALES ON A3 SIZE DRAWING
SCALE 1:500 5 0 5 10 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5
AURECON JACOBS NEW M5 JOINT VENTURE
HASSELL

PLOT DATE / TIME	PLOT BY
19/06/2017 9:35:37 AM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	16.06.2017
DRG CHECK	I.HALLIBURTON	16.06.2017
DESIGN	J.ANDERSEN	16.06.2017
DESIGN CHECK	P.CHON	16.06.2017
ZONE MANAGER	F.BANNO	16.06.2017
DESIGN MANAGER	R.DAVIES	16.06.2017

CLIENT
Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-8101

WESTCONNEX NEW M5

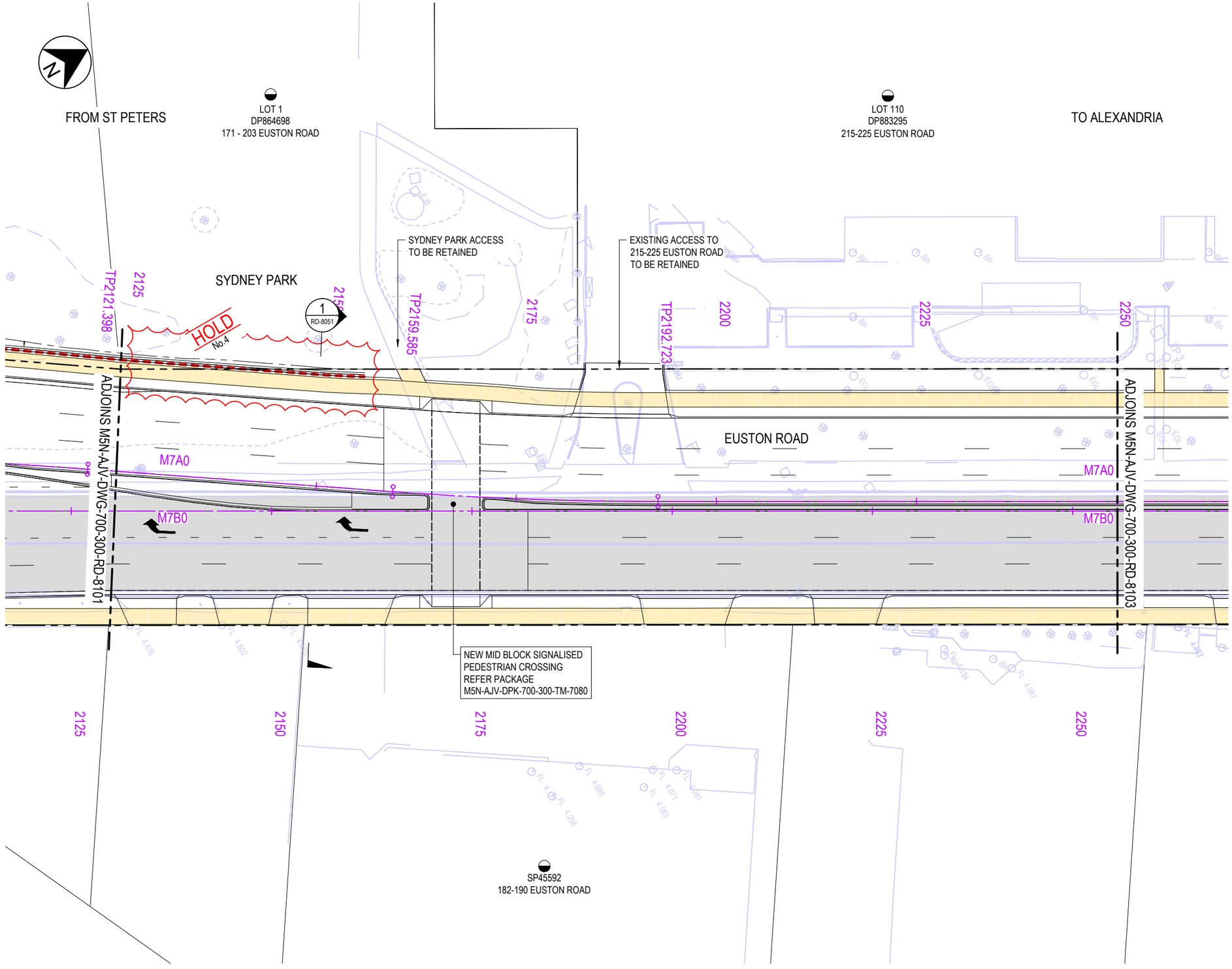
A3

ST PETERS LOCAL ROADS - EUSTON ROAD ROAD GEOMETRY (Incl. ROAD FURNITURE) PLAN

SHEET 1 OF 13

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
FINAL DESIGN		RD-8101	D

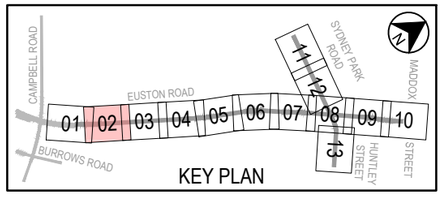


LEGEND

- PERMANENT WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- TEMPORARY WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- SURVEY
- CADASTRAL
- RMS PEDESTRIAN FENCE
- RETAINING WALL
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- EXISTING BRIDGE
- FOOTPATH
- SHARED USE PATH

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-8005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7605.
4. AREAS ENCLOSED WITH HOLD CLOUDS:
   - No.3: PENDING RESOLUTION OF CHANGE ORDER CH-0155
   - No.4: PENDING PURCHASE OF ADDITIONAL LAND



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DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING
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REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
A	15.03.2016	DEVELOPED CONCEPT DESIGN	M.PERCIVAL
B	10.06.2016	SUBSTANTIAL DETAILED DESIGN	M.PERCIVAL
C	07.10.2016	FINAL DESIGN	M.PERCIVAL
D	16.06.2017	RE-ISSUED FOR FINAL DESIGN	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7005

SCALES ON A3 SIZE DRAWING
SCALE 1:500 5 0 5 10 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5
AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME: 19/06/2017 9:35:45 AM
PLOT BY: gomezc2

	NAME	DATE
TITLE		
DRAWN	C.GOMEZ	16.06.2017
DRG CHECK	I.HALLIBURTON	16.06.2017
DESIGN	J.ANDERSEN	16.06.2017
DESIGN CHECK	P.CHON	16.06.2017
ZONE MANAGER	F.BANNO	16.06.2017
DESIGN MANAGER	R.DAVIES	16.06.2017

CLIENT
Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-8102

WESTCONNEX NEW M5

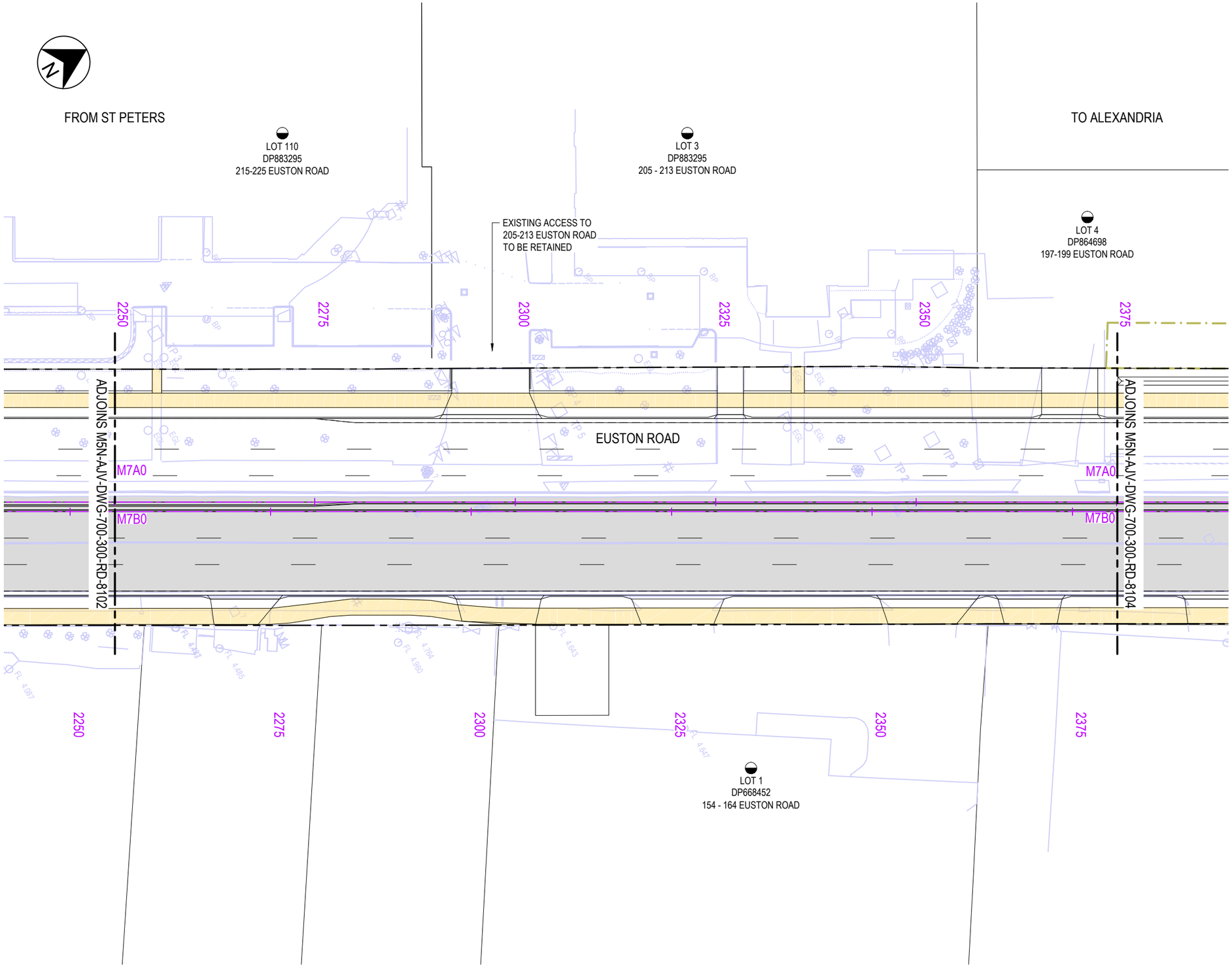
A3

ST PETERS LOCAL ROADS - EUSTON ROAD
ROAD GEOMETRY (Incl. ROAD FURNITURE)
PLAN

SHEET 2 OF 13

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
FINAL DESIGN		RD-8102	D

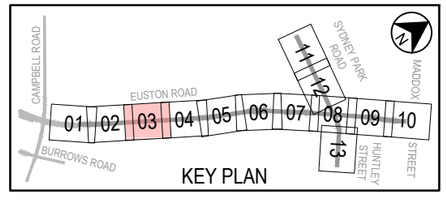


LEGEND

- PERMANENT WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- TEMPORARY WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- SURVEY
- CADASTRAL
- RMS PEDESTRIAN FENCE
- RETAINING WALL
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- EXISTING BRIDGE
- FOOTPATH
- SHARED USE PATH

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-8005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7605.
4. AREAS ENCLOSED WITH HOLD CLOUDS:
   - No.3: PENDING RESOLUTION OF CHANGE ORDER CH-0155
   - No.4: PENDING PURCHASE OF ADDITIONAL LAND



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DOCUMENT NUMBER
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M5N-AJV-MOD-700-300-RD-LOCAL S2_D.TXT	A	15.03.2016	DEVELOPED CONCEPT DESIGN	M.PERCIVAL
	B	10.06.2016	SUBSTANTIAL DETAILED DESIGN	M.PERCIVAL
	C	07.10.2016	FINAL DESIGN	M.PERCIVAL
	D	16.06.2017	RE-ISSUED FOR FINAL DESIGN	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7005

SCALES ON A3 SIZE DRAWING
SCALE 1:500 5 0 5 10 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
19/06/2017 9:35:54 AM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	16.06.2017
DRG CHECK	I.HALLIBURTON	16.06.2017
DESIGN	J.ANDERSEN	16.06.2017
DESIGN CHECK	P.CHON	16.06.2017
ZONE MANAGER	F.BANNO	16.06.2017
DESIGN MANAGER	R.DAVIES	16.06.2017

CLIENT
Sydney Motorway Corporation | WestConnex

WESTCONNEX NEW M5

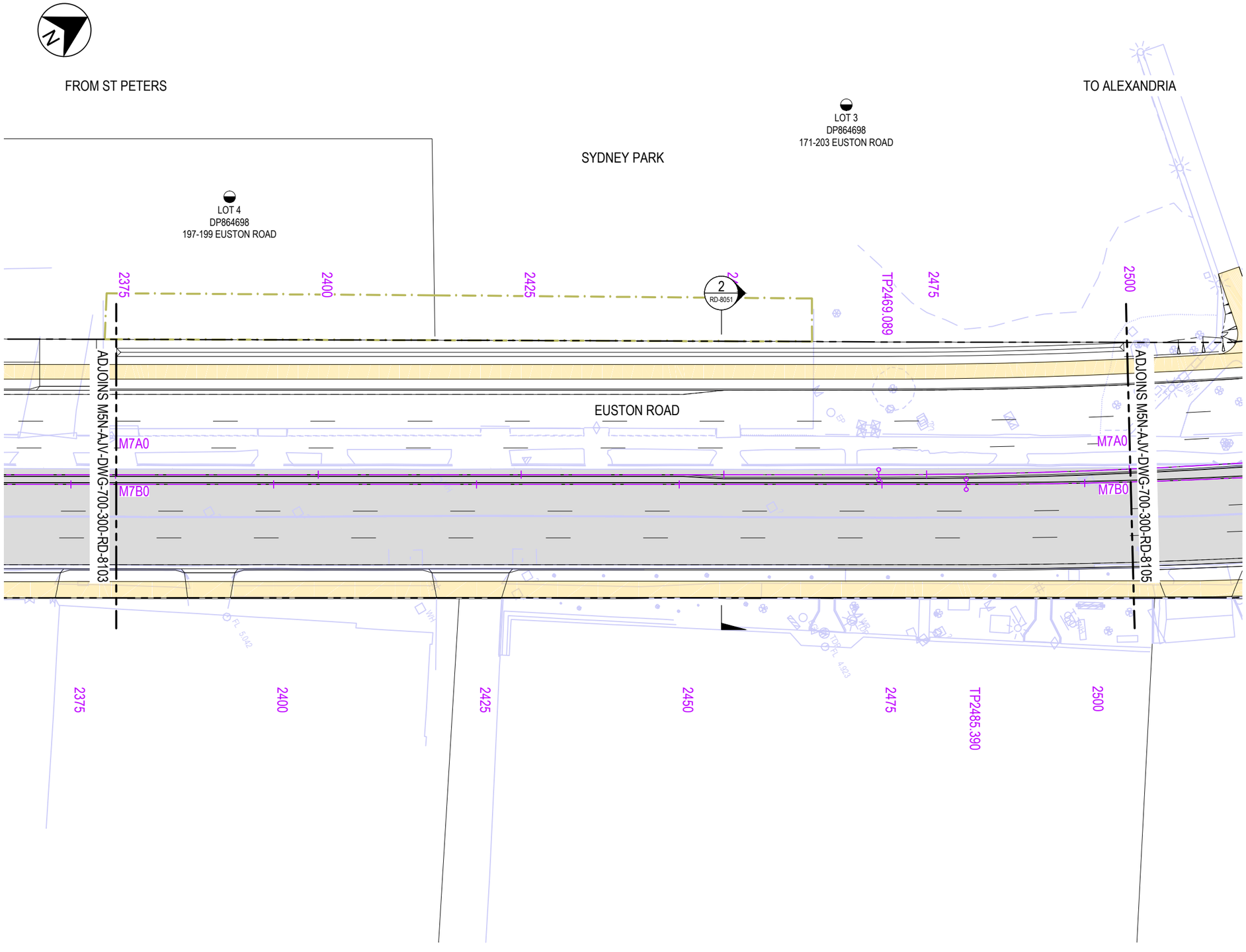
A3

ST PETERS LOCAL ROADS - EUSTON ROAD
ROAD GEOMETRY (Incl. ROAD FURNITURE)
PLAN

SHEET 3 OF 13

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
FINAL DESIGN		RD-8103	D

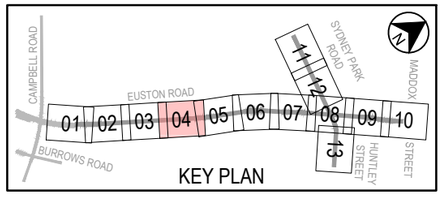


LEGEND

- PERMANENT WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- TEMPORARY WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- SURVEY
- CADASTRAL
- RMS PEDESTRIAN FENCE
- RETAINING WALL
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- EXISTING BRIDGE
- FOOTPATH
- SHARED USE PATH

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-8005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7605.
4. AREAS ENCLOSED WITH HOLD CLOUDS:
   - No.3: PENDING RESOLUTION OF CHANGE ORDER CH-0155
   - No.4: PENDING PURCHASE OF ADDITIONAL LAND



NOT FOR CONSTRUCTION

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-8104

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M5N-AJV-MOD-700-300-RD-LOCAL S2_D.TXT	A	15.03.2016	DEVELOPED CONCEPT DESIGN	M.PERCIVAL
	B	10.06.2016	SUBSTANTIAL DETAILED DESIGN	M.PERCIVAL
	C	07.10.2016	FINAL DESIGN	M.PERCIVAL
	D	16.06.2017	RE-ISSUED FOR FINAL DESIGN	R.DAVIES

PROJECT BREAKDOWN STRUCTURE: M5N-AJV-DPK-700-300-RD-7005

SCALES ON A3 SIZE DRAWING: SCALE 1:500 (5 0 5 10) AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56 | HEIGHT DATUM: AHD

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
19/06/2017 9:36:02 AM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	16.06.2017
DRG CHECK	I.HALLIBURTON	16.06.2017
DESIGN	J.ANDERSEN	16.06.2017
DESIGN CHECK	P.CHON	16.06.2017
ZONE MANAGER	F.BANNO	16.06.2017
DESIGN MANAGER	R.DAVIES	16.06.2017

CLIENT: Sydney Motorway Corporation | WestConnex

WESTCONNEX NEW M5 — A3

ST PETERS LOCAL ROADS - EUSTON ROAD
ROAD GEOMETRY (Incl. ROAD FURNITURE)
PLAN

SHEET 4 OF 13

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
FINAL DESIGN		RD-8104	D

FROM ST PETERS

TO ALEXANDRIA

LOT 3
DP864698
171-203 EUSTON ROAD
SYDNEY PARK

EXISTING DESALINATION PIT
TO BE MAINTAINED

SYDNEY PARK ACCESS
TO BE RETAINED

2500 2525 TP2533.512 2550 2575 2600 2625

ADJOINS M5N-AJV-DWG-700-300-RD-8104

ADJOINS M5N-AJV-DWG-700-300-RD-8106

EUSTON ROAD

M7A0

M7B0

M7A0

M7B0

2500 2525 TP2550.089 2550 2575 2600 2625

LOT 1
DP536642
132 EUSTON ROAD

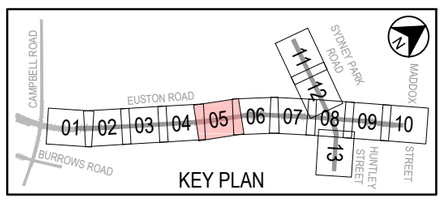
LOT 2
DP709175
112-120 EUSTON ROAD

LEGEND

- PERMANENT WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- TEMPORARY WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- SURVEY
- CADASTRAL
- RMS PEDESTRIAN FENCE
- RETAINING WALL
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- EXISTING BRIDGE
- FOOTPATH
- SHARED USE PATH

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-8005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7605.
4. AREAS ENCLOSED WITH HOLD CLOUDS:
   - No.3: PENDING RESOLUTION OF CHANGE ORDER CH-0155
   - No.4: PENDING PURCHASE OF ADDITIONAL LAND



KEY PLAN

NOT FOR CONSTRUCTION

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REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
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B	10.06.2016	SUBSTANTIAL DETAILED DESIGN	M.PERCIVAL
C	07.10.2016	FINAL DESIGN	M.PERCIVAL
D	16.06.2017	RE-ISSUED FOR FINAL DESIGN	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7005

SCALES ON A3 SIZE DRAWING
SCALE 1:500 5 0 5 10 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AUREGON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
19/06/2017 9:36:10 AM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	16.06.2017
DRG CHECK	I.HALLIBURTON	16.06.2017
DESIGN	J.ANDERSEN	16.06.2017
DESIGN CHECK	P.CHON	16.06.2017
ZONE MANAGER	F.BANNO	16.06.2017
DESIGN MANAGER	R.DAVIES	16.06.2017

CLIENT
Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-8105

WESTCONNEX NEW M5

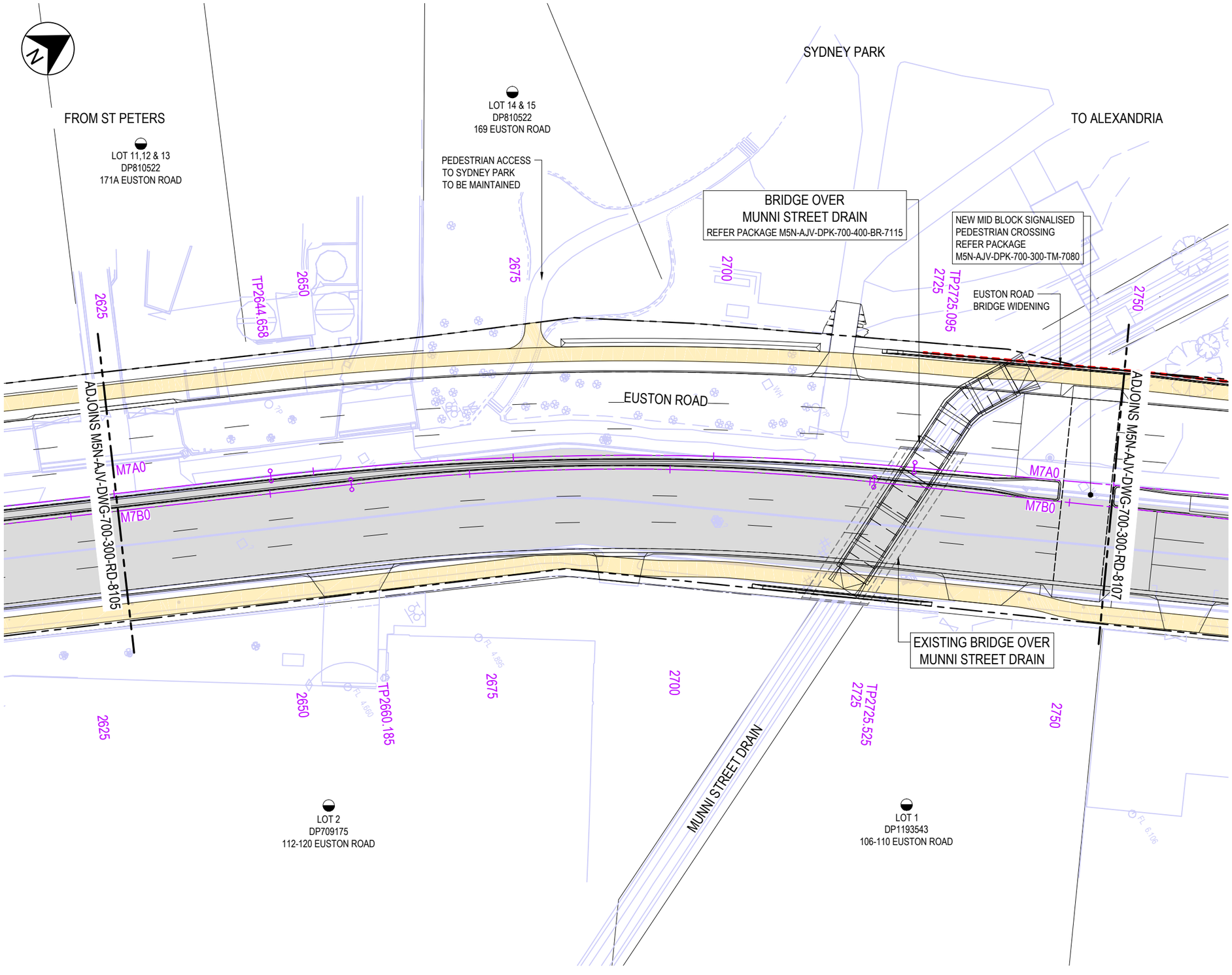
A3

ST PETERS LOCAL ROADS - EUSTON ROAD
ROAD GEOMETRY (Incl. ROAD FURNITURE)
PLAN

SHEET 5 OF 13

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
FINAL DESIGN		RD-8105	D



LEGEND

- PERMANENT WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- TEMPORARY WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- SURVEY
- CADASTRAL
- RMS PEDESTRIAN FENCE
- RETAINING WALL
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- EXISTING BRIDGE
- FOOTPATH
- SHARED USE PATH

NOTE

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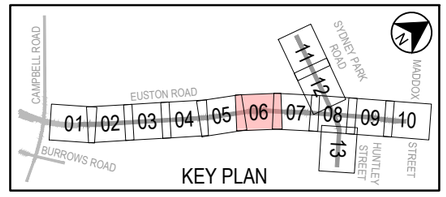
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7605.
4. AREAS ENCLOSED WITH HOLD CLOUDS:
   - No.3: PENDING RESOLUTION OF CHANGE ORDER CH-0155
   - No.4: PENDING PURCHASE OF ADDITIONAL LAND



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M5N-AJV-MOD-700-300-RD-LOCAL S2_D.TXT	A	15.03.2016	DEVELOPED CONCEPT DESIGN	M.PERCIVAL
	B	10.06.2016	SUBSTANTIAL DETAILED DESIGN	M.PERCIVAL
	C	07.10.2016	FINAL DESIGN	M.PERCIVAL
	D	16.06.2017	RE-ISSUED FOR FINAL DESIGN	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7005

SCALES ON A3 SIZE DRAWING
SCALE 1:500 5 0 5 10 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
19/06/2017 9:36:18 AM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	16.06.2017
DRG CHECK	I.HALLIBURTON	16.06.2017
DESIGN	J.ANDERSEN	16.06.2017
DESIGN CHECK	P.CHON	16.06.2017
ZONE MANAGER	F.BANNO	16.06.2017
DESIGN MANAGER	R.DAVIES	16.06.2017

CLIENT: Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-8106

WESTCONNEX NEW M5

A3

ST PETERS LOCAL ROADS - EUSTON ROAD
ROAD GEOMETRY (Incl. ROAD FURNITURE)
PLAN

SHEET 6 OF 13

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
FINAL DESIGN		RD-8106	D

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED
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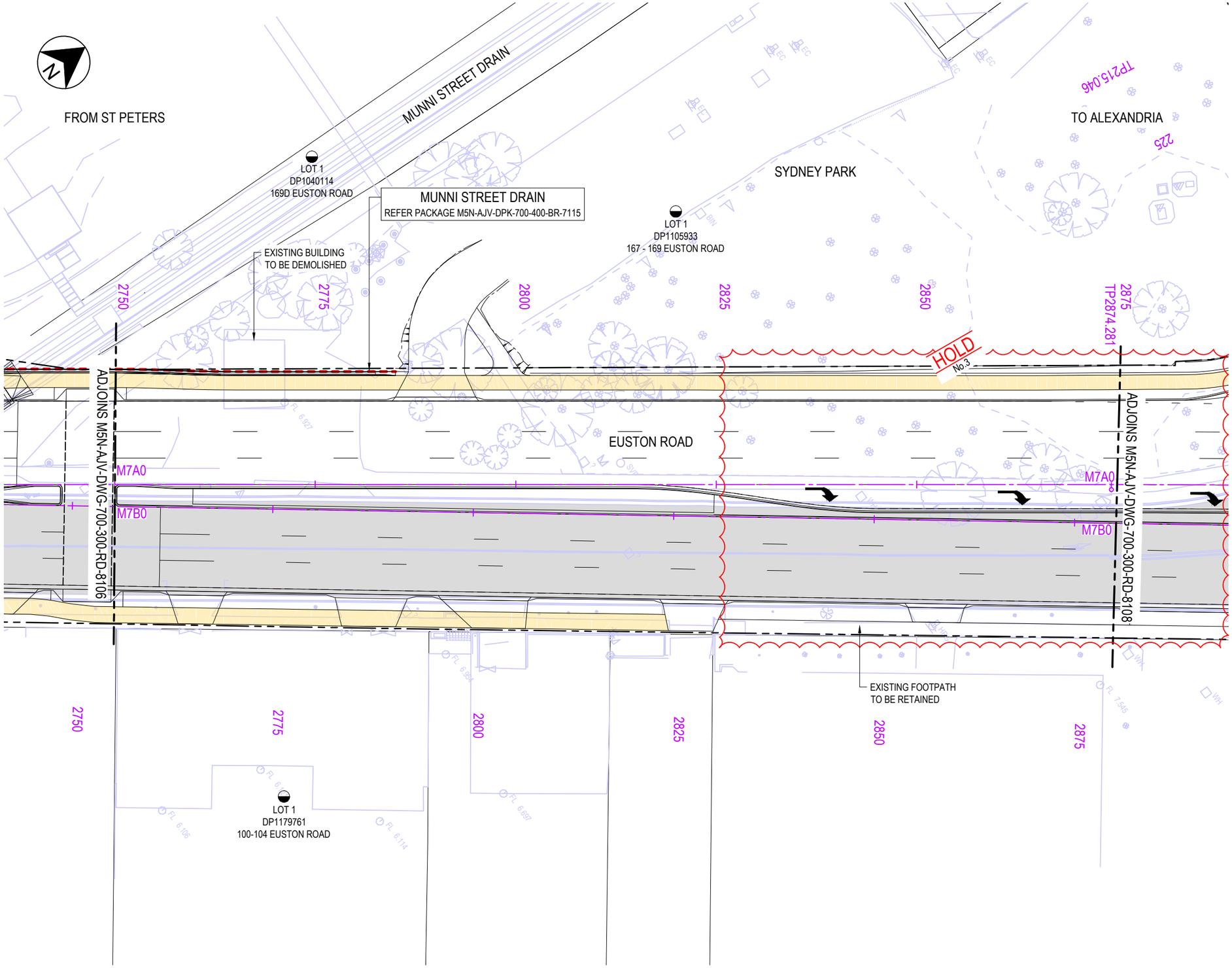
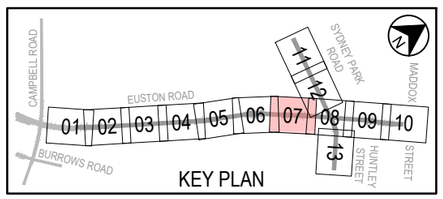


LEGEND

- PERMANENT WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- TEMPORARY WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- SURVEY
- CADASTRAL
- RMS PEDESTRIAN FENCE
- RETAINING WALL
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- EXISTING BRIDGE
- FOOTPATH
- SHARED USE PATH

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-8005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7605.
4. AREAS ENCLOSED WITH HOLD CLOUDS:
   - No.3: PENDING RESOLUTION OF CHANGE ORDER CH-0155
   - No.4: PENDING PURCHASE OF ADDITIONAL LAND



NOT FOR CONSTRUCTION

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M5N-AJV-MOD-700-300-RD-LOCAL S2_D.TXT

REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
A	15.03.2016	DEVELOPED CONCEPT DESIGN	M.PERCIVAL
B	10.06.2016	SUBSTANTIAL DETAILED DESIGN	M.PERCIVAL
C	07.10.2016	FINAL DESIGN	M.PERCIVAL
D	16.06.2017	RE-ISSUED FOR FINAL DESIGN	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7005

SCALES ON A3 SIZE DRAWING
SCALE 1:500 (5 0 5 10)
AT A3

CO-ORDINATE SYSTEM
MGA ZONE 56

HEIGHT DATUM
AHD

WestConnex New M5

AUREGON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
19/06/2017 9:36:26 AM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	16.06.2017
DRG CHECK	I.HALLIBURTON	16.06.2017
DESIGN	J.ANDERSEN	16.06.2017
DESIGN CHECK	P.CHON	16.06.2017
ZONE MANAGER	F.BANNO	16.06.2017
DESIGN MANAGER	R.DAVIES	16.06.2017

CLIENT
Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-8107

WESTCONNEX NEW M5

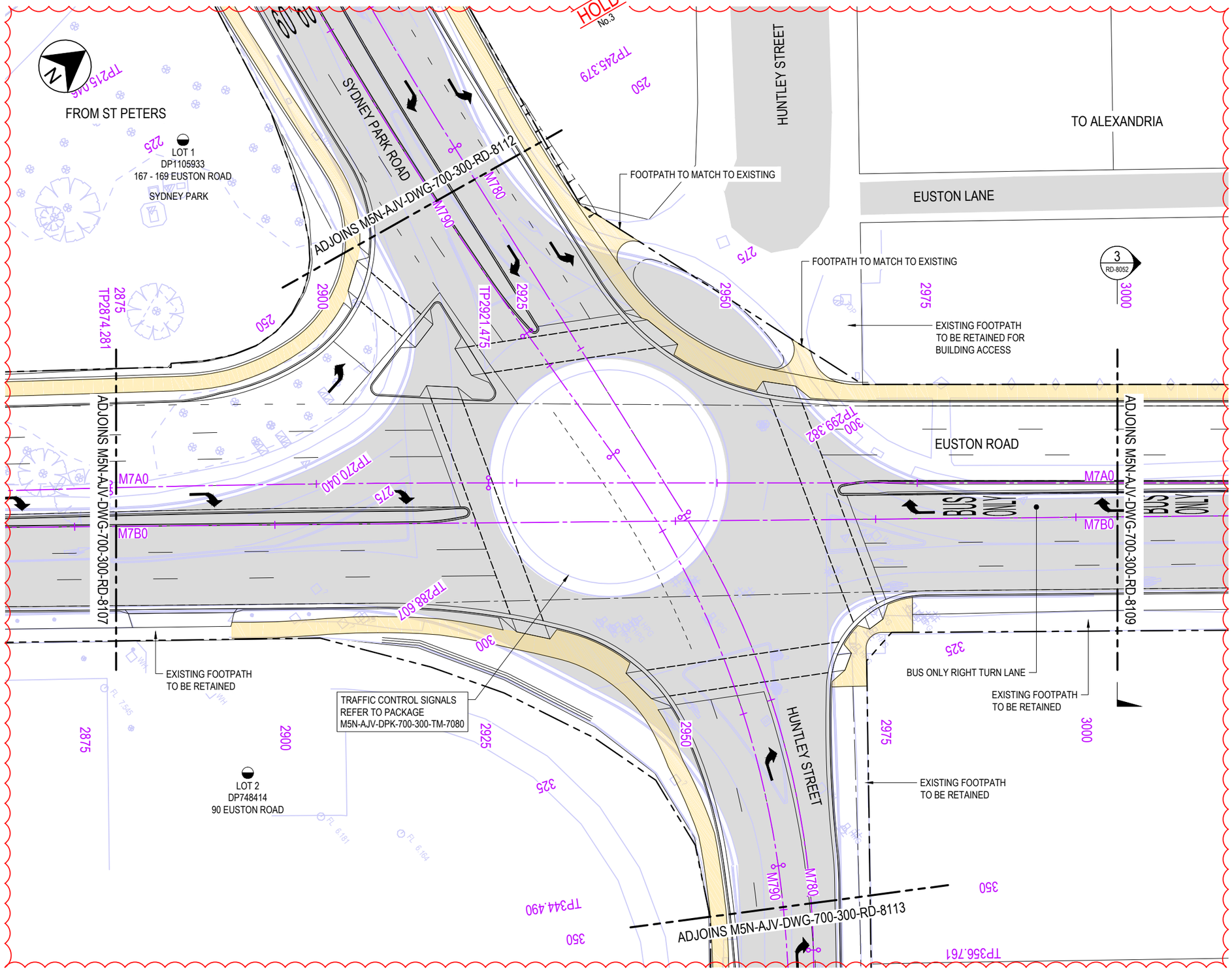
A3

ST PETERS LOCAL ROADS - EUSTON ROAD
ROAD GEOMETRY (Incl. ROAD FURNITURE)
PLAN

SHEET 7 OF 13

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
FINAL DESIGN		RD-8107	D

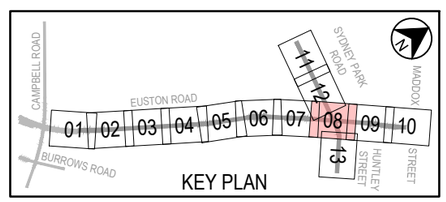


LEGEND

- PERMANENT WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- TEMPORARY WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- SURVEY
- CADASTRAL
- RMS PEDESTRIAN FENCE
- RETAINING WALL
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- EXISTING BRIDGE
- FOOTPATH
- SHARED USE PATH

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-8005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7605.
4. AREAS ENCLOSED WITH HOLD CLOUDS:
   - No.3: PENDING RESOLUTION OF CHANGE ORDER CH-0155
   - No.4: PENDING PURCHASE OF ADDITIONAL LAND



NOT FOR CONSTRUCTION

96mm ON A3 SIZE ORIGINAL

DRAWING FILE LOCATION \ NAME				
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	B	10.06.2016	SUBSTANTIAL DETAILED DESIGN	M.PERCIVAL
	C	07.10.2016	FINAL DESIGN	M.PERCIVAL
	D	16.06.2017	RE-ISSUED FOR FINAL DESIGN	R.DAVIES

PROJECT BREAKDOWN STRUCTURE: M5N-AJV-DPK-700-300-RD-7005

SCALES ON A3 SIZE DRAWING: SCALE 1:500 (5 0 5 10) AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56 | HEIGHT DATUM: AHD

WestConnex New M5

AUREGON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
19/06/2017 9:36:34 AM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	16.06.2017
DRG CHECK	I.HALLIBURTON	16.06.2017
DESIGN	J.ANDERSEN	16.06.2017
DESIGN CHECK	P.CHON	16.06.2017
ZONE MANAGER	F.BANNO	16.06.2017
DESIGN MANAGER	R.DAVIES	16.06.2017

CLIENT: Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER: M5N-AJV-DWG-700-300-RD-8108

WESTCONNEX NEW M5

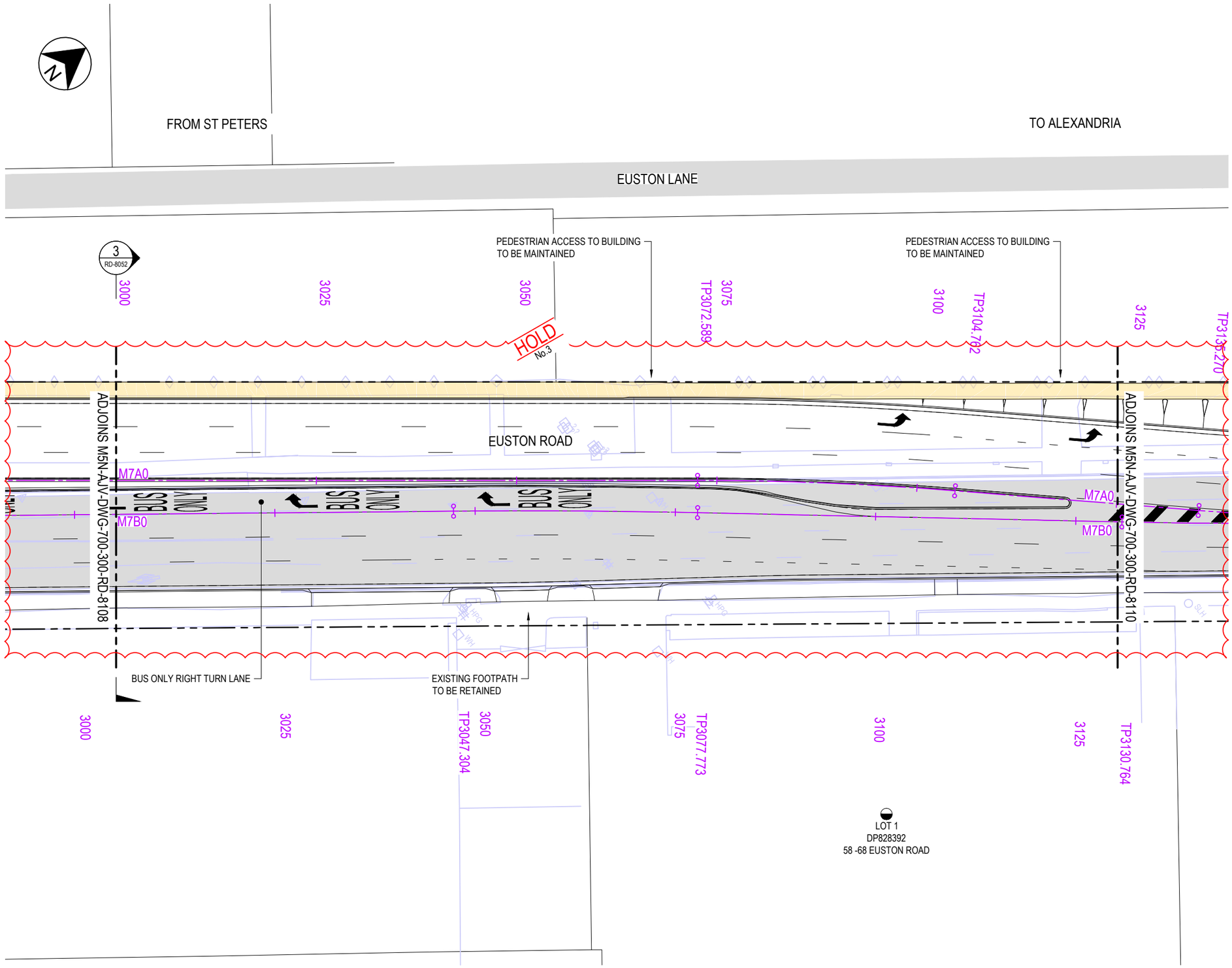
A3

ST PETERS LOCAL ROADS - EUSTON ROAD
ROAD GEOMETRY (Incl. ROAD FURNITURE)
PLAN

SHEET 8 OF 13

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
FINAL DESIGN		RD-8108	D

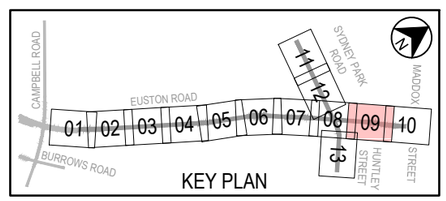


LEGEND

- PERMANENT WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- TEMPORARY WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- SURVEY
- CADASTRAL
- RMS PEDESTRIAN FENCE
- RETAINING WALL
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- EXISTING BRIDGE
- FOOTPATH
- SHARED USE PATH

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-8005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7605.
4. AREAS ENCLOSED WITH HOLD CLOUDS:
   - No.3: PENDING RESOLUTION OF CHANGE ORDER CH-0155
   - No.4: PENDING PURCHASE OF ADDITIONAL LAND



NOT FOR CONSTRUCTION

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED

50mm ON A3 SIZE ORIGINAL

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	B	10.06.2016	SUBSTANTIAL DETAILED DESIGN	M.PERCIVAL
	C	07.10.2016	FINAL DESIGN	M.PERCIVAL
	D	16.06.2017	RE-ISSUED FOR FINAL DESIGN	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7005

SCALES ON A3 SIZE DRAWING
SCALE 1:500 5 0 5 10
AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AUREON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
19/06/2017 9:36:42 AM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	16.06.2017
DRG CHECK	I.HALLIBURTON	16.06.2017
DESIGN	J.ANDERSEN	16.06.2017
DESIGN CHECK	P.CHON	16.06.2017
ZONE MANAGER	F.BANNO	16.06.2017
DESIGN MANAGER	R.DAVIES	16.06.2017

CLIENT
Sydney Motorway Corporation
WestConnex

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-8109

WESTCONNEX NEW M5

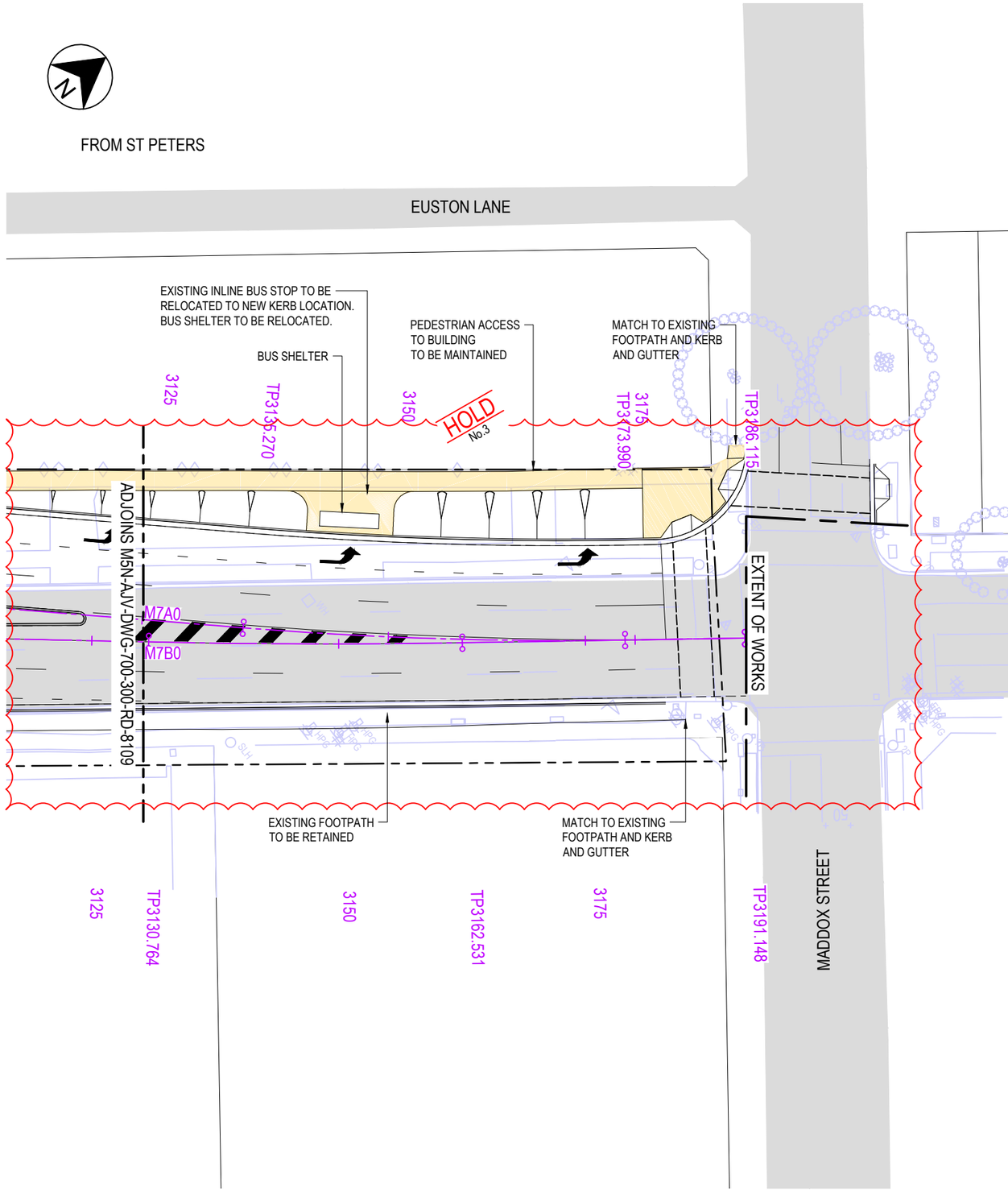
A3

ST PETERS LOCAL ROADS - EUSTON ROAD
ROAD GEOMETRY (Incl. ROAD FURNITURE)
PLAN

SHEET 9 OF 13

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
FINAL DESIGN		RD-8109	D

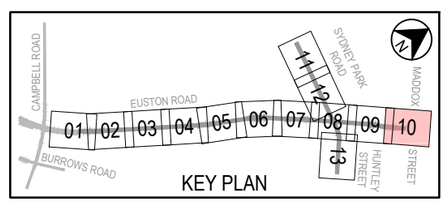


LEGEND

- PERMANENT WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- TEMPORARY WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- SURVEY
- CADASTRAL
- RMS PEDESTRIAN FENCE
- RETAINING WALL
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- EXISTING BRIDGE
- FOOTPATH
- SHARED USE PATH

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-8005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7605.
4. AREAS ENCLOSED WITH HOLD CLOUDS:
   - No.3: PENDING RESOLUTION OF CHANGE ORDER CH-0155
   - No.4: PENDING PURCHASE OF ADDITIONAL LAND



NOT FOR CONSTRUCTION

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DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING
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REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
A	15.03.2016	DEVELOPED CONCEPT DESIGN	M.PERCIVAL
B	10.06.2016	SUBSTANTIAL DETAILED DESIGN	M.PERCIVAL
C	07.10.2016	FINAL DESIGN	M.PERCIVAL
D	16.06.2017	RE-ISSUED FOR FINAL DESIGN	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7005

SCALES ON A3 SIZE DRAWING
SCALE 1:500 (5 0 5 10) AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AUREGON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
19/06/2017 9:36:50 AM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	16.06.2017
DRG CHECK	I.HALLIBURTON	16.06.2017
DESIGN	J.ANDERSEN	16.06.2017
DESIGN CHECK	P.CHON	16.06.2017
ZONE MANAGER	F.BANNO	16.06.2017
DESIGN MANAGER	R.DAVIES	16.06.2017

CLIENT: Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-8110

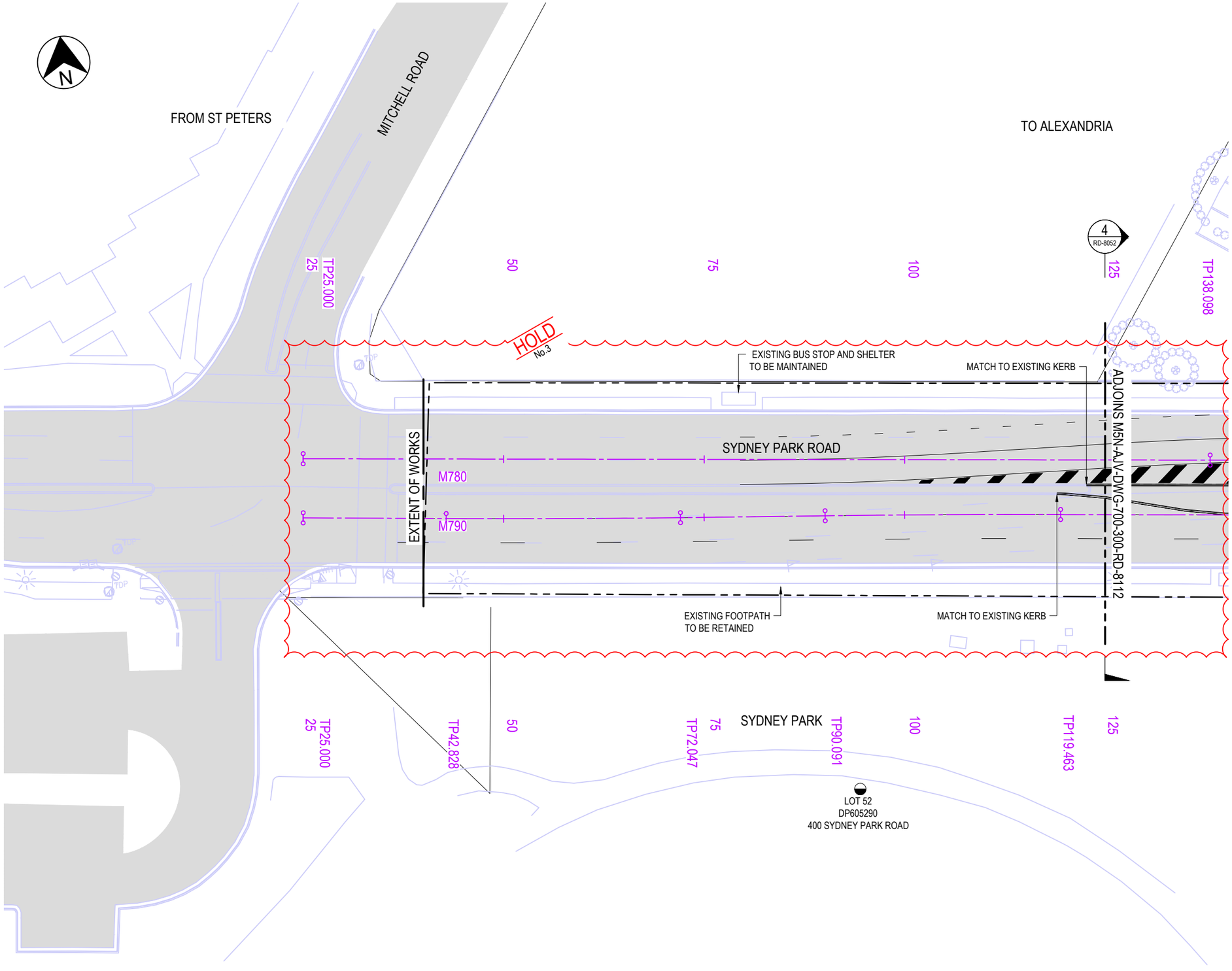
WESTCONNEX NEW M5 — A3

ST PETERS LOCAL ROADS - EUSTON ROAD
ROAD GEOMETRY (Incl. ROAD FURNITURE)
PLAN

SHEET 10 OF 13

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
FINAL DESIGN		RD-8110	D

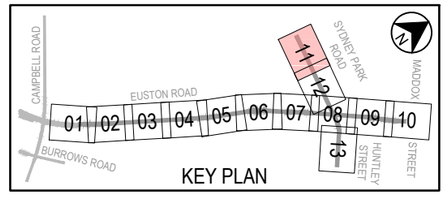


LEGEND

- PERMANENT WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- TEMPORARY WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- SURVEY
- CADASTRAL
- RMS PEDESTRIAN FENCE
- RETAINING WALL
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- EXISTING BRIDGE
- FOOTPATH
- SHARED USE PATH

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-8005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7605.
4. AREAS ENCLOSED WITH HOLD CLOUDS:
   - No.3: PENDING RESOLUTION OF CHANGE ORDER CH-0155
   - No.4: PENDING PURCHASE OF ADDITIONAL LAND



NOT FOR CONSTRUCTION

DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING	REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
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	B	10.06.2016	SUBSTANTIAL DETAILED DESIGN	M.PERCIVAL
	C	07.10.2016	FINAL DESIGN	M.PERCIVAL
	D	16.06.2017	RE-ISSUED FOR FINAL DESIGN	R.DAVIES

DRAWING FILE LOCATION \ NAME
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PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7005

SCALES ON A3 SIZE DRAWING
SCALE 1:500 5 0 5 10 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
19/06/2017 9:36:58 AM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	16.06.2017
DRG CHECK	I.HALLIBURTON	16.06.2017
DESIGN	J.ANDERSEN	16.06.2017
DESIGN CHECK	P.CHON	16.06.2017
ZONE MANAGER	F.BANNO	16.06.2017
DESIGN MANAGER	R.DAVIES	16.06.2017

CLIENT: Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-8111

WESTCONNEX NEW M5

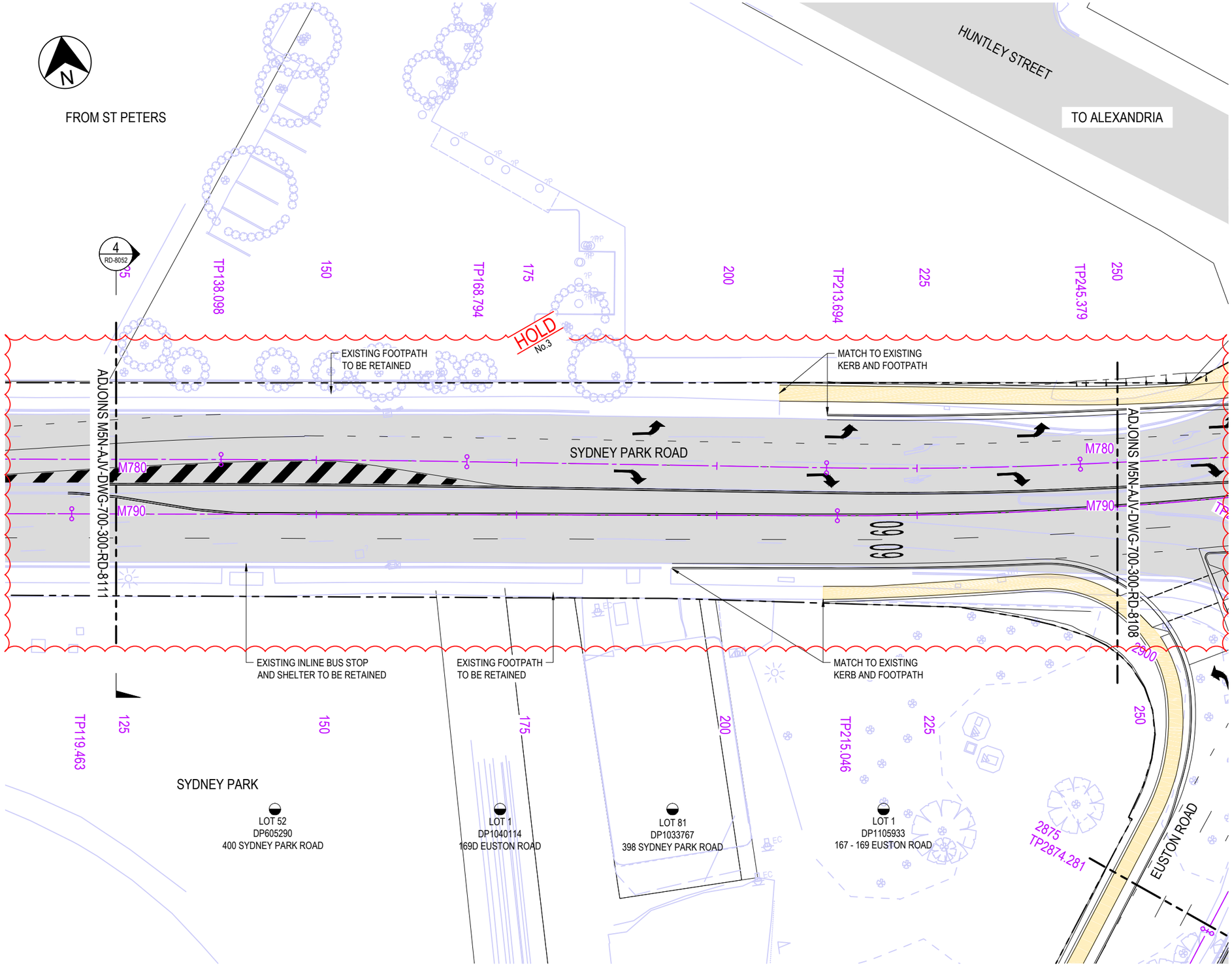
A3

ST PETERS LOCAL ROADS - EUSTON ROAD
ROAD GEOMETRY (Incl. ROAD FURNITURE)
PLAN

SHEET 11 OF 13

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
FINAL DESIGN		RD-8111	D

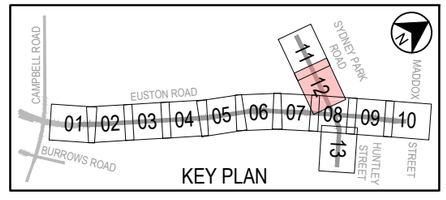


LEGEND

- PERMANENT WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- TEMPORARY WORKS BOUNDARY (SUBJECT TO CONFIRMATION)
- SURVEY
- CADASTRAL
- RMS PEDESTRIAN FENCE
- RETAINING WALL
- PROPERTY ADJUSTMENT
- KERB RAMP
- DRIVEWAY CROSSING
- EXISTING PAVEMENT
- EXISTING BRIDGE
- FOOTPATH
- SHARED USE PATH

NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-8005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7605.
4. AREAS ENCLOSED WITH HOLD CLOUDS:
   - No.3: PENDING RESOLUTION OF CHANGE ORDER CH-0155
   - No.4: PENDING PURCHASE OF ADDITIONAL LAND



NOT FOR CONSTRUCTION

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M5N-AJV-MOD-700-300-RD-LOCAL S2_D.TXT	A	15.03.2016	DEVELOPED CONCEPT DESIGN	M.PERCIVAL
	B	10.06.2016	SUBSTANTIAL DETAILED DESIGN	M.PERCIVAL
	C	07.10.2016	FINAL DESIGN	M.PERCIVAL
	D	16.06.2017	RE-ISSUED FOR FINAL DESIGN	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7005

SCALES ON A3 SIZE DRAWING
SCALE 1:500 5 0 5 10 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5
AURECON JACOBS NEW M5 JOINT VENTURE
HASSELL

PLOT DATE / TIME: 19/06/2017 9:37:06 AM
PLOT BY: gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	16.06.2017
DRG CHECK	I.HALLIBURTON	16.06.2017
DESIGN	J.ANDERSEN	16.06.2017
DESIGN CHECK	P.CHON	16.06.2017
ZONE MANAGER	F.BANNO	16.06.2017
DESIGN MANAGER	R.DAVIES	16.06.2017

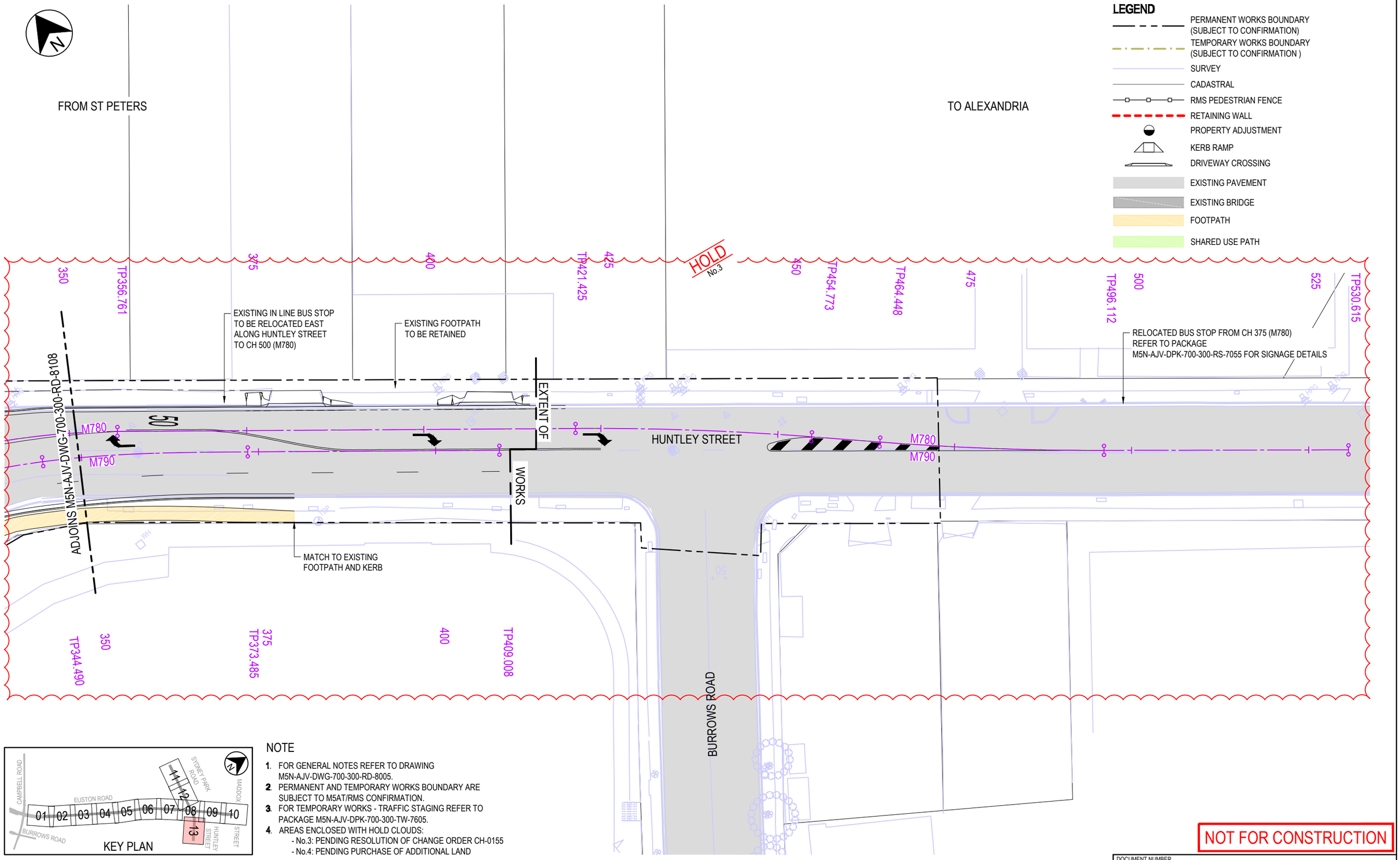
CLIENT
Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-8112

WESTCONNEX NEW M5 — A3
ST PETERS LOCAL ROADS - EUSTON ROAD
ROAD GEOMETRY (Incl. ROAD FURNITURE)
PLAN
SHEET 12 OF 13

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
FINAL DESIGN		RD-8112	D



NOTE

1. FOR GENERAL NOTES REFER TO DRAWING M5N-AJV-DWG-700-300-RD-8005.
2. PERMANENT AND TEMPORARY WORKS BOUNDARY ARE SUBJECT TO M5AT/RMS CONFIRMATION.
3. FOR TEMPORARY WORKS - TRAFFIC STAGING REFER TO PACKAGE M5N-AJV-DPK-700-300-TW-7605.
4. AREAS ENCLOSED WITH HOLD CLOUDS:
   - No.3: PENDING RESOLUTION OF CHANGE ORDER CH-0155
   - No.4: PENDING PURCHASE OF ADDITIONAL LAND

NOT FOR CONSTRUCTION

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED

0 5 10 15 20 25 30 35 40 45 50mm ON A3 SIZE ORIGINAL

DRAWING FILE LOCATION \ NAME
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DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING
M5N-AJV-MOD-700-300-RD-LOCAL S2_D.TXT

REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
A	15.03.2016	DEVELOPED CONCEPT DESIGN	M.PERCIVAL
B	10.06.2016	SUBSTANTIAL DETAILED DESIGN	M.PERCIVAL
C	07.10.2016	FINAL DESIGN	M.PERCIVAL
D	16.06.2017	RE-ISSUED FOR FINAL DESIGN	R.DAVIES

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-700-300-RD-7005

SCALES ON A3 SIZE DRAWING
SCALE 1:500 (5 0 5 10) AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
19/06/2017 11:48:18 AM	gomezc2

TITLE	NAME	DATE
DRAWN	C.GOMEZ	16.06.2017
DRG CHECK	I.HALLIBURTON	16.06.2017
DESIGN	J.ANDERSEN	16.06.2017
DESIGN CHECK	P.CHON	16.06.2017
ZONE MANAGER	F.BANNO	16.06.2017
DESIGN MANAGER	R.DAVIES	16.06.2017

CLIENT: Sydney Motorway Corporation | WestConnex

DOCUMENT NUMBER
M5N-AJV-DWG-700-300-RD-8113

WESTCONNEX NEW M5

A3

ST PETERS LOCAL ROADS - EUSTON ROAD
ROAD GEOMETRY (Incl. ROAD FURNITURE)
PLAN

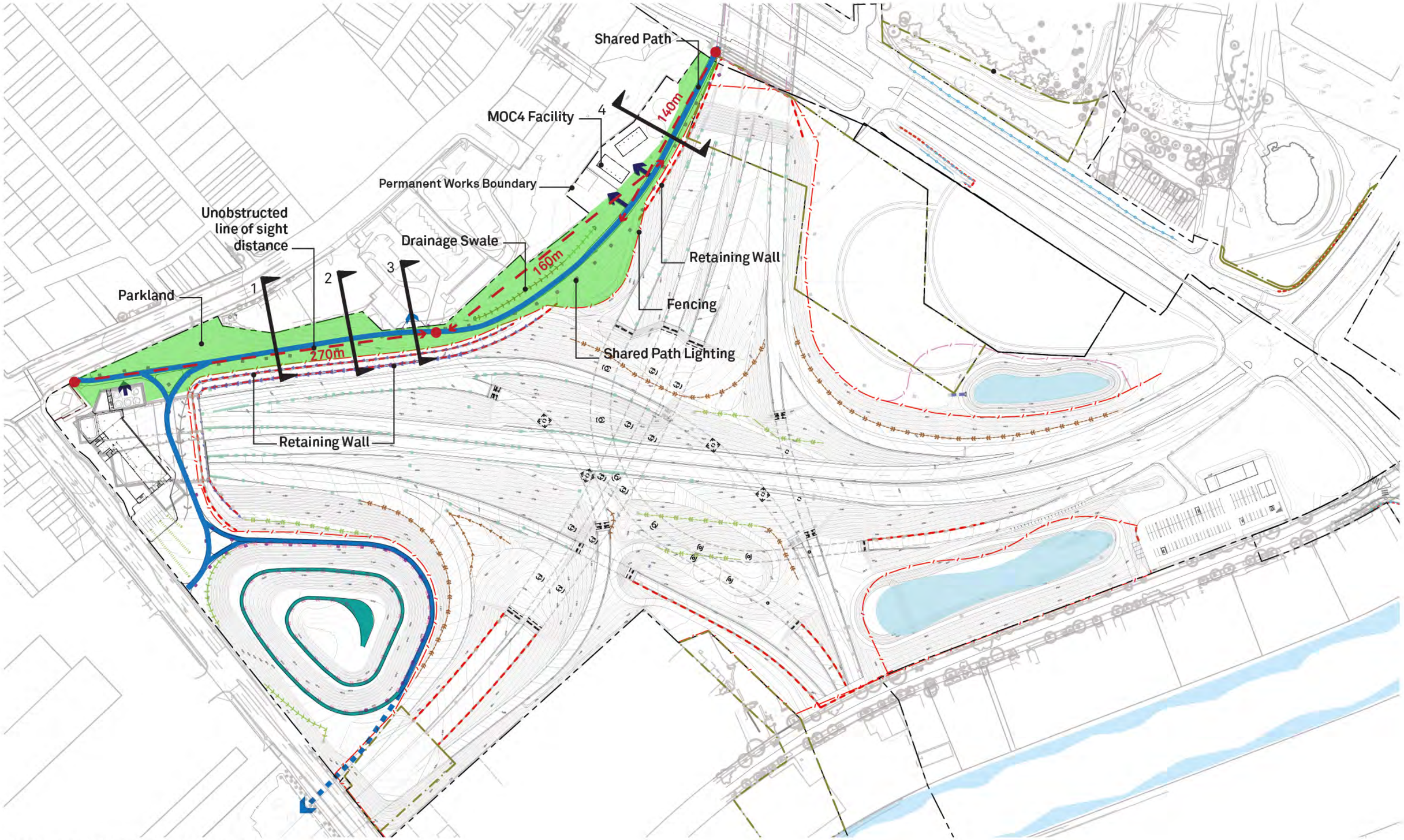
SHEET 13 OF 13

RMS REGISTRATION No. DS2016/002598

ISSUE STATUS	EDMS No.	SHEET No.	REV
FINAL DESIGN		RD-8113	D

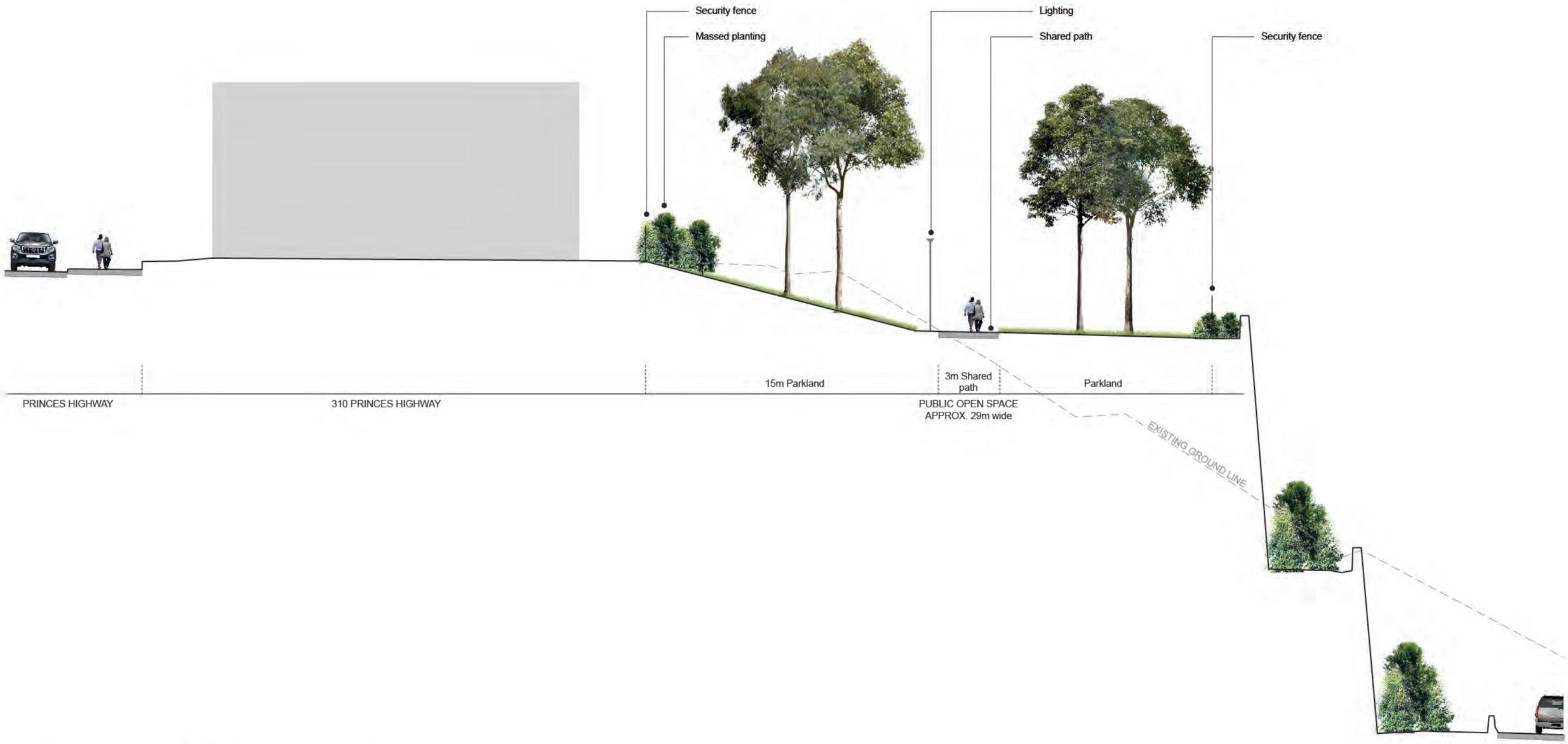
APPENDIX 3

St Peters Interchange Cycle Path



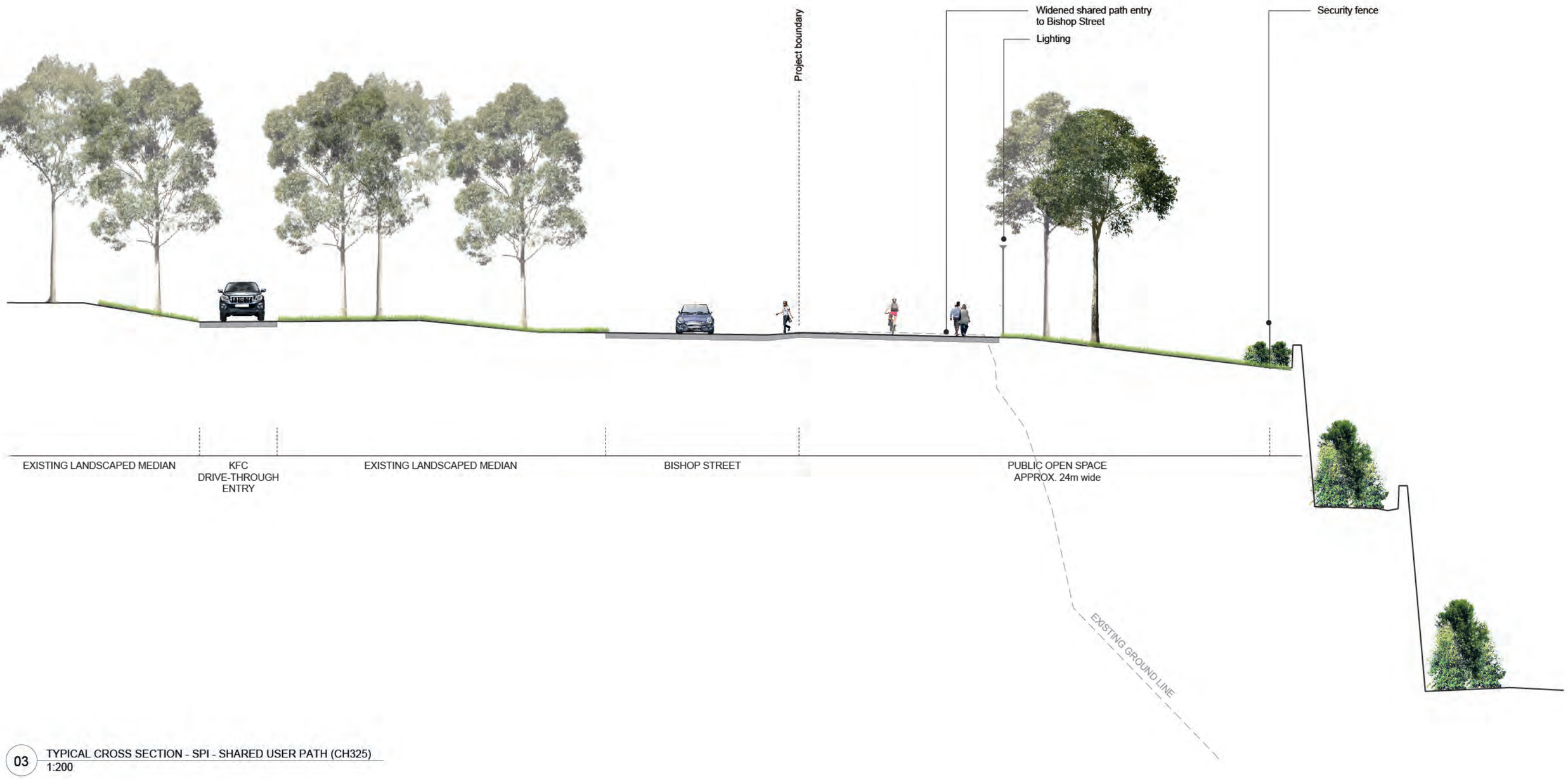
ST PETERS INTERCHANGE
SHARED PATH SECTION LOCATION PLAN

HASSELL

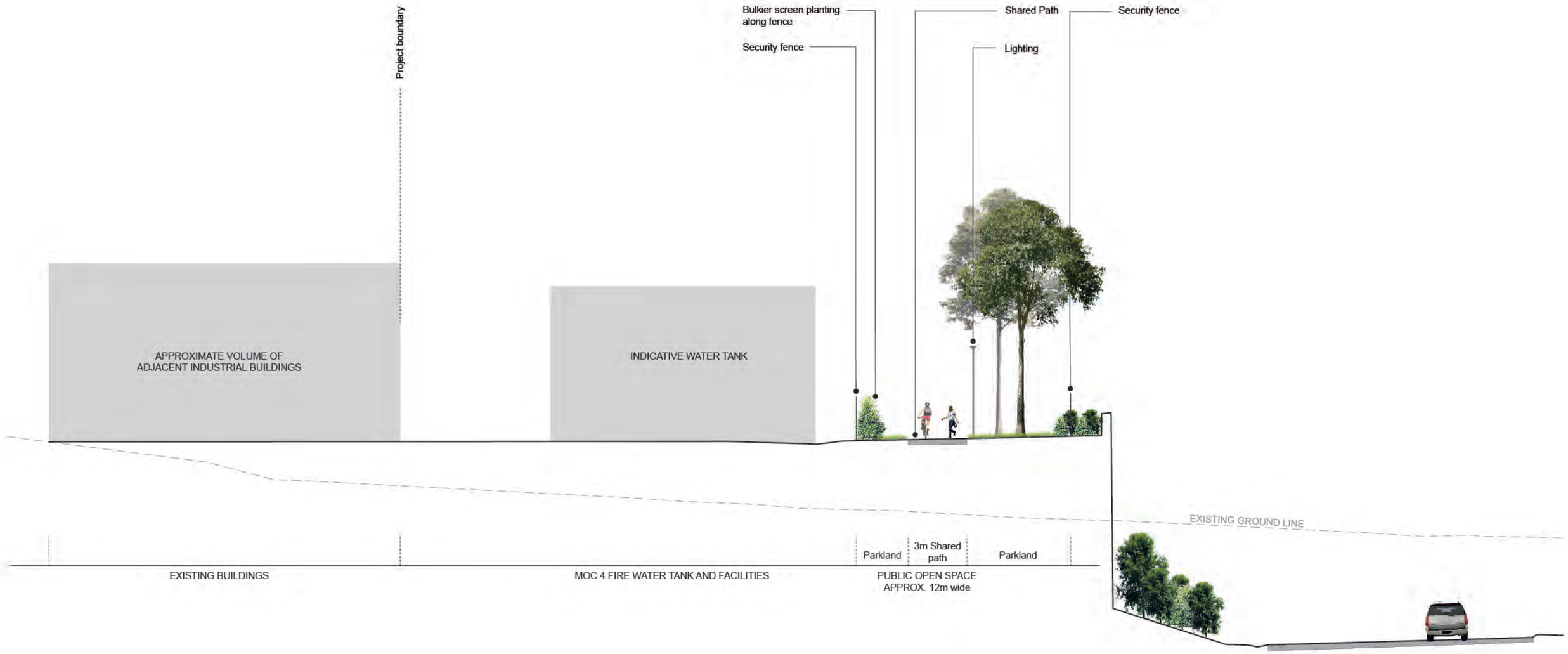


01 TYPICAL CROSS SECTION - SPI - SHARED USER PATH (CH225)
1:200

02 TYPICAL CROSS SECTION - SPI - SHARED USER PATH (CH275)
1:200



03 TYPICAL CROSS SECTION - SPI - SHARED USER PATH (CH325)
1:200



04 TYPICAL CROSS SECTION - SPI - SHARED USER PATH (CH575)
1:200

APPENDIX 4

M5 East Linear Park Shared Path

TCS 2811

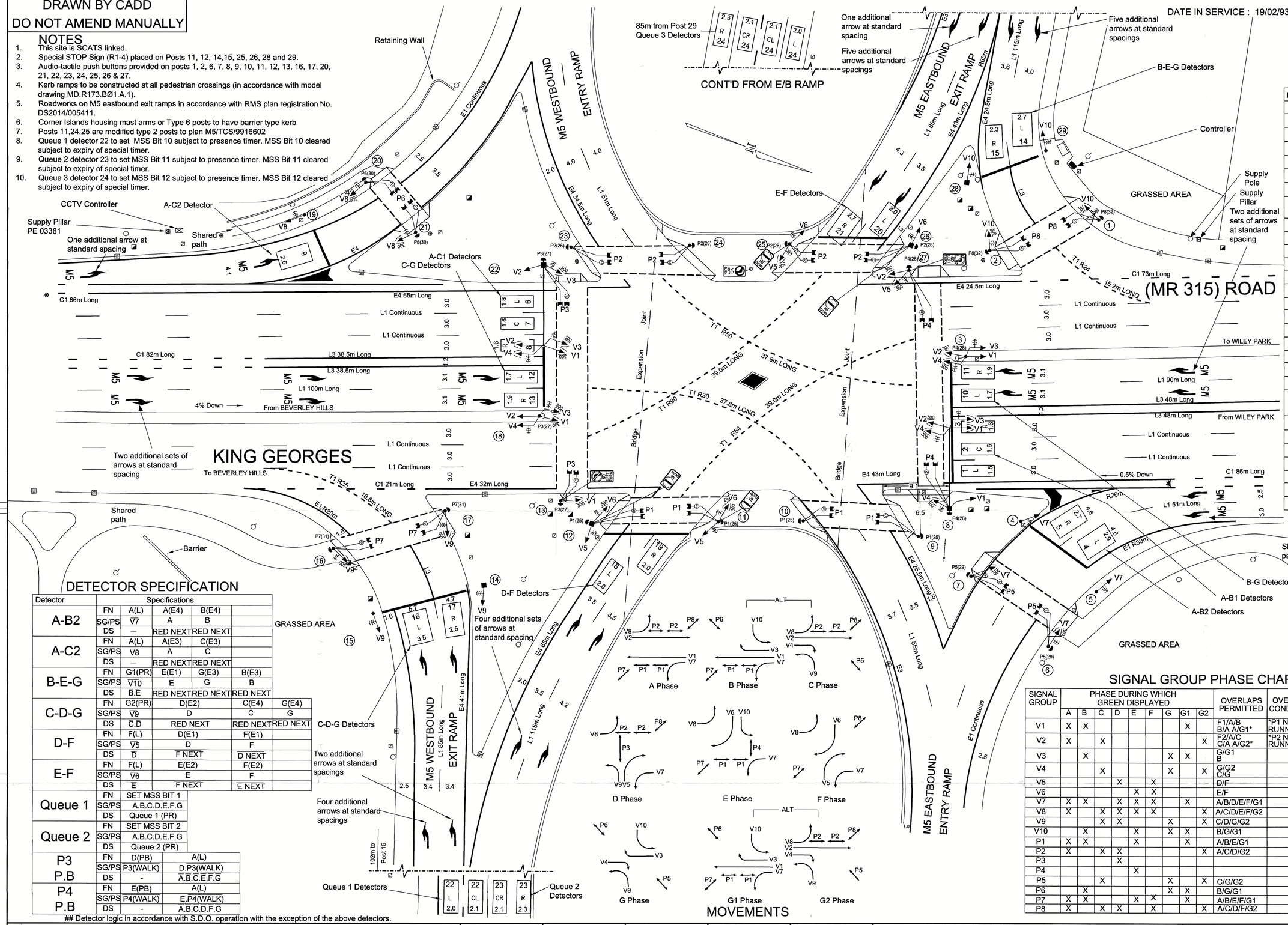
DRAWN BY CADD
DO NOT AMEND MANUALLY

DATE IN SERVICE : 19/02/93

Transport Roads & Maritime Services

NOTES

1. This site is SCATS linked.
2. Special STOP Sign (R1-4) placed on Posts 11, 12, 14,15, 25, 26, 28 and 29.
3. Audio-tactile push buttons provided on posts 1, 2, 6, 7, 8, 9, 10, 11, 12, 13, 16, 17, 20, 21, 22, 23, 24, 25, 26 & 27.
4. Kerb ramps to be constructed at all pedestrian crossings (in accordance with model drawing MD.R173.BØ1.A.1).
5. Roadworks on M5 eastbound exit ramps in accordance with RMS plan registration No. DS2014/005411.
6. Corner Islands housing mast arms or Type 6 posts to have barrier type kerb
7. Posts 11,24,25 are modified type 2 posts to plan M5/TCS/9916602
8. Queue 1 detector 22 to set MSS Bit 10 subject to presence timer. MSS Bit 10 cleared subject to expiry of special timer.
9. Queue 2 detector 23 to set MSS Bit 11 subject to presence timer. MSS Bit 11 cleared subject to expiry of special timer.
10. Queue 3 detector 24 to set MSS Bit 12 subject to presence timer. MSS Bit 12 cleared subject to expiry of special timer.



POSTS

POST	TYPE	LENGTH	O/S	REMARKS
1	2	4.1	1.1	EXISTING
2	2	4.1	2.0	EXISTING
3	2	4.1		EXISTING
4	2	4.1	1.0	EXISTING
5	2	4.1	1.0	EXISTING
6	2	4.1	1.0	EXISTING
7	2	4.1	1.0	EXISTING
8	10	-	2.4	NEW 11.0m Arm
9	2	3.2	1.4	NEW
10	2	3.2	1.5	EXISTING
11	2	4.1	2.0	EXISTING
12	6	-	2.0	EXISTING
13	2	4.1	1.0	EXISTING
14	6	-	2.0	EXISTING
15	2	4.1	1.2	EXISTING
16	2	4.1	1.2	EXISTING
17	2	4.1	1.4	EXISTING
18	2	4.1		EXISTING
19	2	4.1	1.2	EXISTING
20	2	4.1	1.2	EXISTING
21	2	4.1	2.1	EXISTING
22	10	-	2.5	EXISTING 11.0m Arm
23	2	3.2	1.2	EXISTING
24	2	3.2	1.6	EXISTING
25	2	4.1	2.0	EXISTING
26	6	-	2.0	EXISTING
27	2	4.1	2.0	EXISTING
28	6	-	2.0	EXISTING
29	2	4.1	0.5	EXISTING

Two additional sets of arrows at standard spacing

DETECTOR SPECIFICATION

Detector		Specifications				
A-B2	FN	A(L)	A(E4)	B(E4)		
	SG/PS	V7	A	B		
	DS	–	RED NEXT	RED NEXT		
A-C2	FN	A(L)	A(E3)	C(E3)		
	SG/PS	V8	A	C		
	DS	–	RED NEXT	RED NEXT		
B-E-G	FN	G1(PR)	E(E1)	G(E3)	B(E3)	
	SG/PS	V10	E	G	B	
	DS	B.E	RED NEXT	RED NEXT	RED NEXT	
C-D-G	FN	G2(PR)	D(E2)		C(E4)	G(E4)
	SG/PS	V9	D		C	G
	DS	C.D	RED NEXT		RED NEXT	RED NEXT
D-F	FN	F(L)	D(E1)		F(E1)	
	SG/PS	V5	D		F	
	DS	D	F NEXT		D NEXT	
E-F	FN	F(L)	E(E2)		F(E2)	
	SG/PS	V6	E		F	
	DS	E	F NEXT		E NEXT	
Queue 1	FN	SET MSS BIT 1				
	SG/PS	A.B.C.D.E.F.G				
	DS	Queue 1 (PR)				
Queue 2	FN	SET MSS BIT 2				
	SG/PS	A.B.C.D.E.F.G				
	DS	Queue 2 (PR)				
P3 P.B	FN	D(PB)	A(L)			
	SG/PS	P3(WALK)	D.P3(WALK)			
	DS	-	A.B.C.E.F.G			
P4 P.B	FN	E(PB)	A(L)			
	SG/PS	P4(WALK)	E.P4(WALK)			
	DS	-	A.B.C.D.F.G			

Detector logic in accordance with S.D.O. operation with the exception of the above detectors.

SIGNAL GROUP PHASE CHART

SIGNAL GROUP	PHASE DURING WHICH GREEN DISPLAYED									OVERLAPS PERMITTED	OVERLAP CONDITIONS	REMARKS
	A	B	C	D	E	F	G	G1	G2			
V1	X	X						X		F1/A/B B/A A/G1*	*P1 NOT RUNNING	
V2	X		X						X	F2/A/C C/A A/G2*	*P2 NOT RUNNING	
V3		X					X	X		G/G1 B		
V4			X				X		X	G/G2 C/G		
V5				X		X				D/F		
V6					X	X				E/F		
V7	X	X		X	X	X		X		A/B/D/E/F/G1		LS FROM C.G.G2
V8	X		X	X	X	X			X	A/C/D/E/F/G2		LS FROM B.G.G1
V9			X	X			X		X	C/D/G/G2		LS FROM A.B.E.F.G1
V10		X			X		X	X		B/G/G1		LS FROM A.C.D.F.G2
P1	X	X			X			X		A/B/E/G1		Auto intro subject to XSF1
P2	X		X	X					X	A/C/D/G2		Auto intro subject to XSF2
P3				X								
P4					X							
P5			X				X		X	C/G/G2		Auto intro subject to XSF5
P6		X					X	X		B/G/G1		Auto intro subject to XSF6
P7	X	X			X	X		X		A/B/E/F/G1		Auto intro subject to XSF7
P8	X		X	X		X			X	A/C/D/F/G2		Auto intro subject to XSF8

A ORIGINAL ISSUE

PUBLIC UTILITY LEGEND	
HYDRANT	☐
STOP VALVE	▲
GAS VALVE	#
SEWER MANHOLE	Ⓢ
TELECOM PIT	◪
ELECT LIGHT POLE	☼
POWER POLE	○
STAY POLE	⊘
TELEPHONE BOX	T
TELECOM PILLAR	◕

REFERENCE PLANS	
SYMBOLS/ABBS.	VD003-6
STD POSIT	VD001-5
PRES. DETECT	VC005-17
VEH. GROUP OP	TS-TN-019
DET. LOGIC OP	TS-TN-020
PED. MOVEMNT OP	TS-TN-021
SURVEYOR : HYDER	
DATE : 09/10/2014	

U.B.D. Ref. Map 273 A11
I.S.G. CO-ORDS E: 306 833 N: 1 242 791

DESIGNED B KRYGSMAN
CHECKED B ATKINSON
B KRYGSMAN
SITE CHECKED
RECOMMENDED

DESIGN APPROVAL
APPROVED
R SIEBERER
POSITION DIRECTOR
DATE 24/02/2016
DESIGN PREPARED BY AECOM

RMS ACCEPTANCE
RECOMMENDED
POSITION Team Leader Network Operations
DATE 08 MAR 2016
ACCEPTED
POSITION MANAGER
DATE 17-05-16

ROADS AND MARITIME SERVICES

CANTERBURY COUNCIL AREA
TRAFFIC SIGNALS AT
KING GEORGES ROAD (MR 315)
AND M5 MOTORWAY
LAKEMBA

DESIGN LAYOUT TCS No 2511

EXISTING ☐ PROPOSED ☒

CADD FILE: VV2811_15A.dgn

SCALE 5 0 5 10 (1:250 @ A1)

ISSUE A

FILE SF2014/012144

SUPERSEDES SHEET/ISSUE 11/D

REG No. DS2014/003200

TCS No. 2811

SHEET 15

$DATE$ $TIME$ $FILE$

Revision 1 - August 2014

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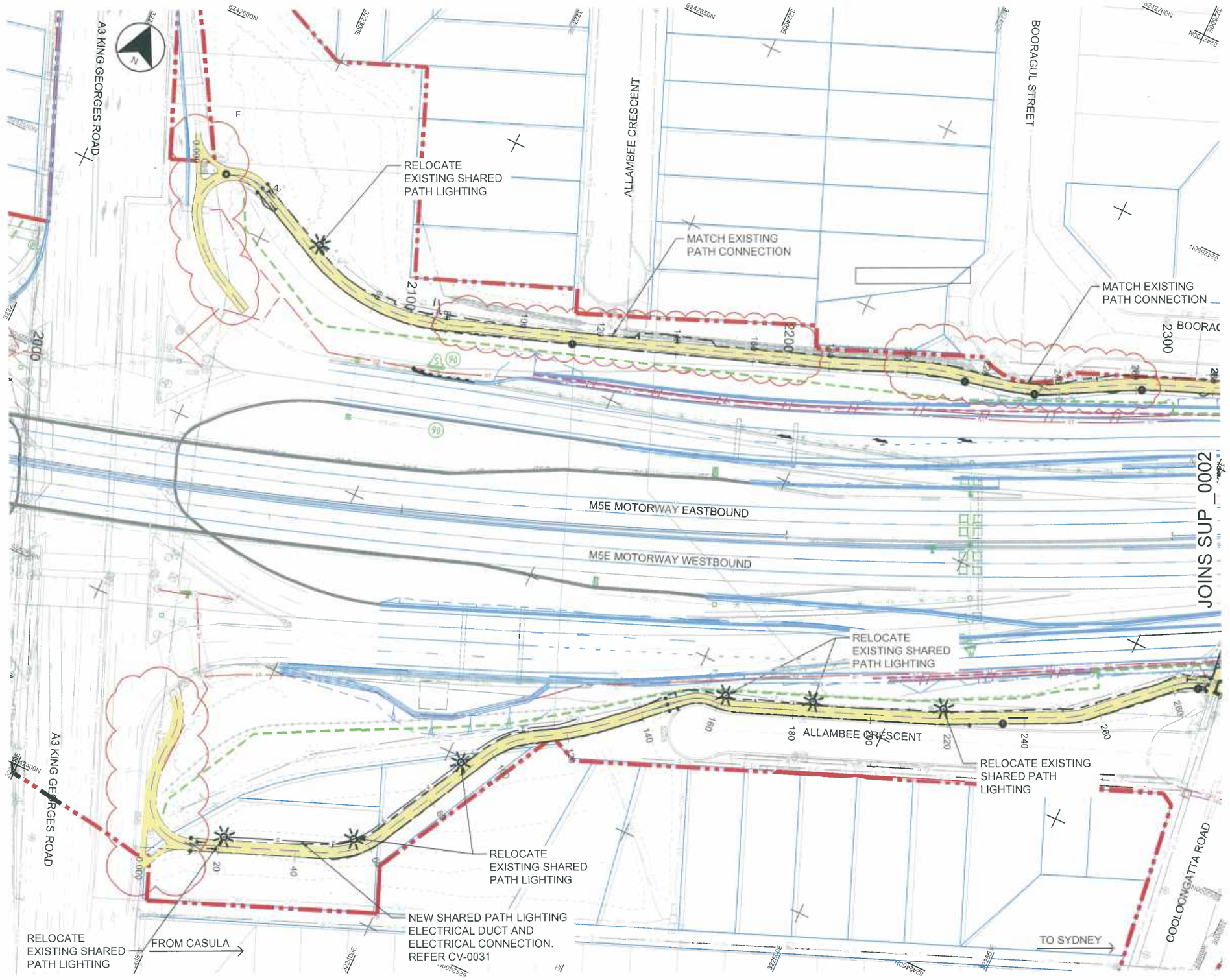
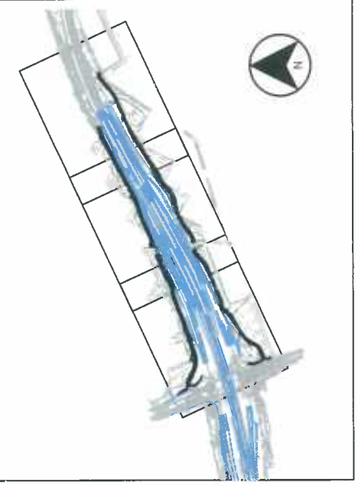


LEGEND

- SHARED PATH CONTROL LINE
- 100 CONTROL LINE CHAINAGE
- PROJECT BOUNDARY
- CADASTRAL BOUNDARY
- DEPOSITED PLAN (DP) BOUNDARY
- NEW NOISE WALL
- SHARED PATH DESIGN
- KING GEORGE RD INTERCHANGE UPGRADE DESIGN
- SURVEY
- SHARED PATH
- RELOCATED SHARED USER PATH LIGHTING

KEYPLAN



FOR INFORMATION ONLY

CLIENT	DESIGNER		SCALES		
Transport Roads & Maritime Services	AECOM Australia Pty Ltd A B N 20 093 846 925		5 0 5 10 15 20m 1 : 1000 FULL SIZE A3		WESTCONNEX M5 KING GEORGES RD INTERCHANGE UPGRADE SHARED PATH ALIGNMENT PLAN - SHEET 1

INFORMATION DOCUMENT

DOCUMENT NO

PROJECT NO - DOC TYPE - PROJECT PHASE - DISCIPLINE - DATE (YYYYMMDD) - DESCRIPTION:

WCX2-IFD-20-2100-CV-20150814_SUP_0001

Cad ref: C:\pw\working\aecom_au\scheelingsb\dms30316\WCX2-IFD-20-2100-CV-1102.dwg Last modified: 14 Sep 15 - 15:48

BOORAGUL STREET

COOLOONGATTA ROAD

ELOUERA STREET

KIRRANG STREET

CT 2333,428

RELOCATE EXISTING SHARED PATH LIGHTING

M5E MOTORWAY EASTBOUND

M5E MOTORWAY WESTBOUND

MATCH EXISTING DRAINAGE PIT LEVELS FROM CHAINAGE 70 TO 150

RELOCATE EXISTING SHARED PATH LIGHTING

MATCH EXISTING PATH CONNECTION LEVELS

FROM CASULA

TO SYDNEY

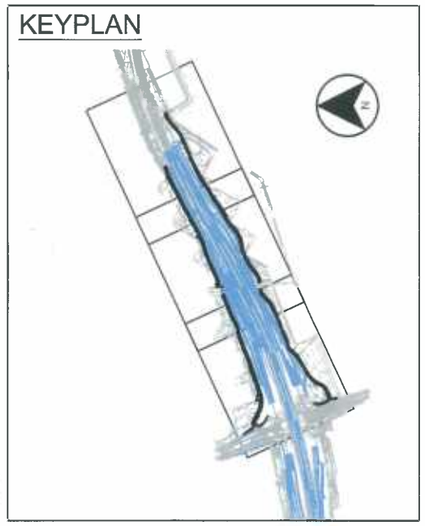
JOINS SUP_0001

JOINS SUP_0003

LEGEND

- SHARED PATH CONTROL LINE
- 100 CONTROL LINE CHAINAGE
- PROJECT BOUNDARY
- CADASTRAL BOUNDARY
- DEPOSITED PLAN (DP) BOUNDARY
- NEW NOISE WALL
- SHARED PATH DESIGN
- KING GEORGE RD INTERCHANGE UPGRADE DESIGN
- SURVEY
- SHARED PATH
- RELOCATED SHARED USER PATH LIGHTING

KEYPLAN



FOR INFORMATION ONLY

CLIENT: Transport Roads & Maritime Services

DESIGNER: AECOM Australia Pty Ltd A.B.N. 20 093 846 925

SCALES: 5 0 5 10 15 20m — 1 : 1000 FULL SIZE A3

WESTCONNEX M5 KING GEORGES RD INTERCHANGE UPGRADE SHARED PATH ALIGNMENT PLAN - SHEET 2

INFORMATION DOCUMENT

DOCUMENT NO

PROJECT NO - DOC TYPE - PROJECT PHASE - DISCIPLINE - DATE (YYYYMMDD) - DESCRIPTION.

WCX2-IFD-20-2100-CV-20150914_SUP_0002

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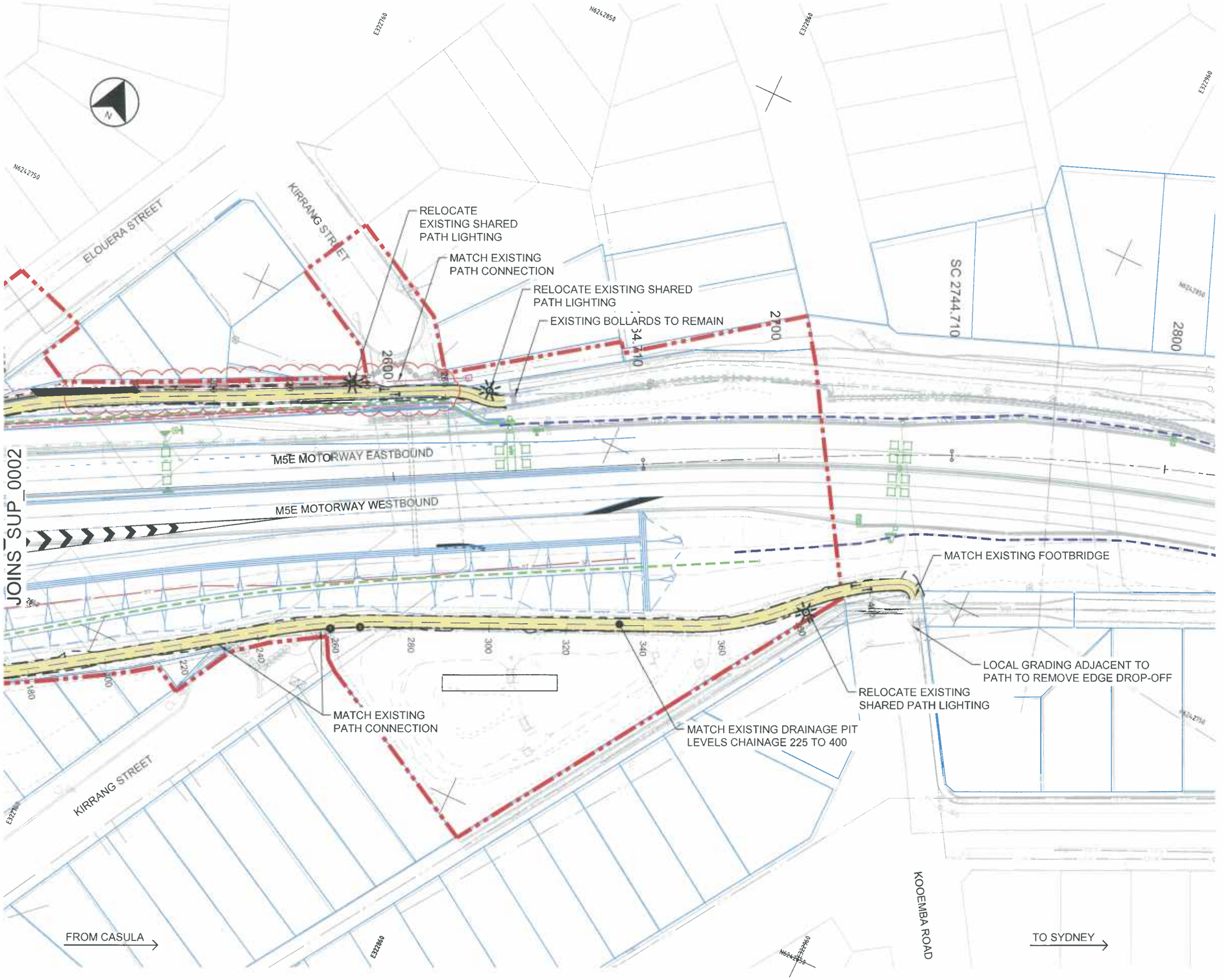
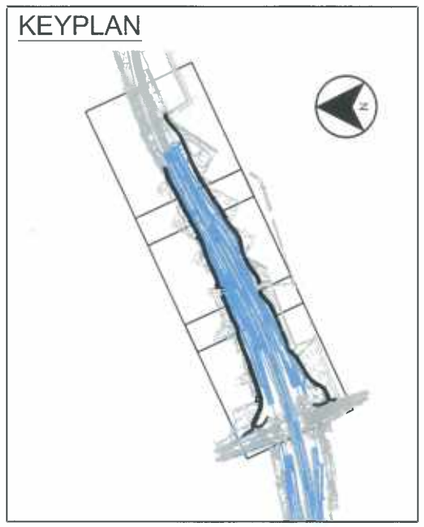


LEGEND

- SHARED PATH CONTROL LINE
- 100 CONTROL LINE CHAINAGE
- PROJECT BOUNDARY
- CADASTRAL BOUNDARY
- DEPOSITED PLAN (DP) BOUNDARY
- NEW NOISE WALL
- SHARED PATH DESIGN
- KING GEORGE RD INTERCHANGE UPGRADE DESIGN
- SURVEY
- SHARED PATH
- RELOCATED SHARED USER PATH LIGHTING

KEYPLAN



FOR INFORMATION ONLY

CLIENT	DESIGNER		SCALES		
Transport Roads & Maritime Services	AECOM Australia Pty Ltd A.B.N. 20 093 846 925		5 0 5 10 15 20m 1 : 1000 FULL SIZE A3		WESTCONNEX M5 KING GEORGES RD INTERCHANGE UPGRADE SHARED PATH ALIGNMENT PLAN - SHEET 3

INFORMATION DOCUMENT

DOCUMENT NO

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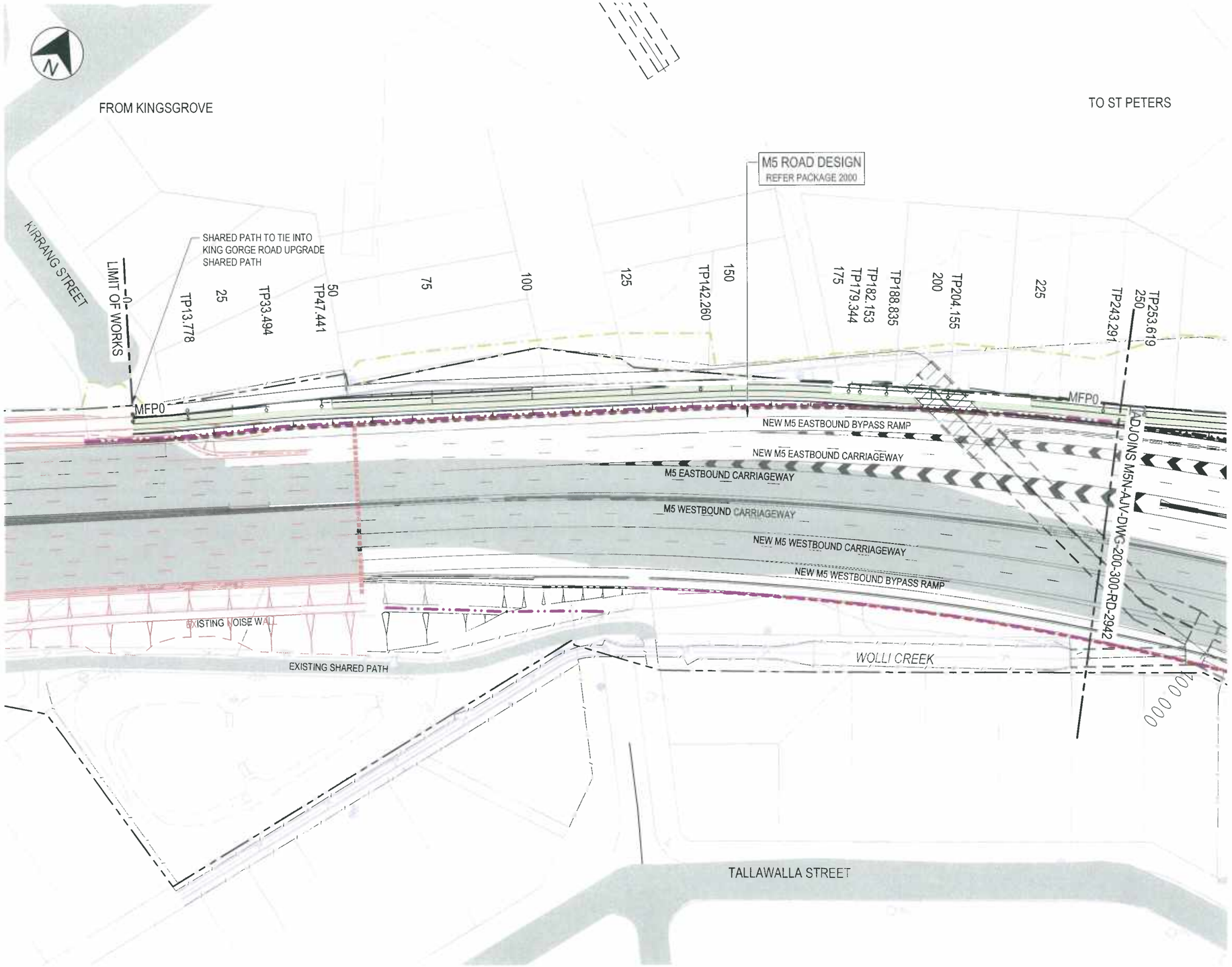

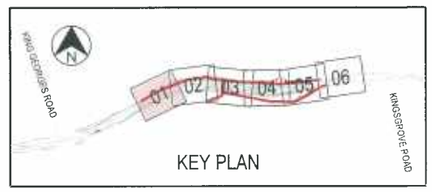

KEY PLAN

NOT FOR CONSTRUCTION

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M5N-AJV-MOD-200-300-RD-WESTERN SUP_A.txt	A	22.04.2016	DEVELOPED CONCEPT DESIGN	M.P

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-200-300-RD-2010

SCALES ON A3 SIZE DRAWING
SCALE 1:1000 10 0 10 20 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
22/04/2016 9:54:37 AM	mthatcher

	NAME	DATE
TITLE		
DRAWN	C.BROCK	22.04.2016
DRG CHECK	S. BYRNE	22.04.2016
DESIGN	M. JAMES	22.04.2016
DESIGN CHECK	A.GOSBY	22.04.2016
ZONE MANAGER	J. YIP	22.04.2016
DESIGN MANAGER	M.PERCIVAL	22.04.2016

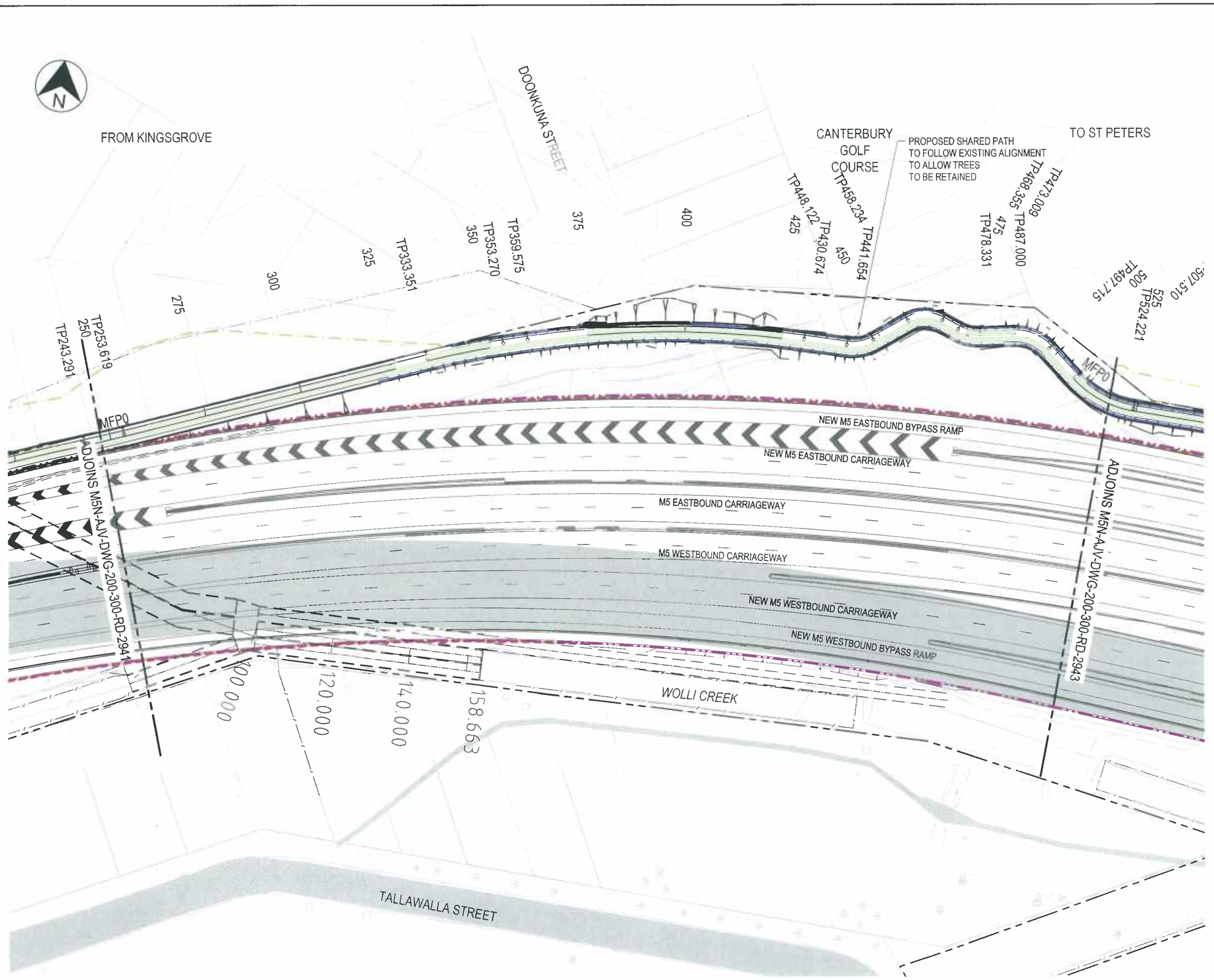
CLIENT

DOCUMENT NUMBER
M5N-AJV-DWG-200-300-RD-2941

WESTCONNEX NEW M5 — A3
WESTERN INTERCHANGE AND PORTALS
SHARED USE PATH GEOMETRY
PLAN
SHEET 1 OF 6

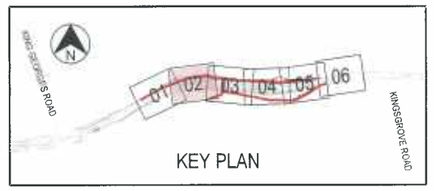
RMS REGISTRATION No.

ISSUE STATUS	EDMS No.	SHEET No.	REV
DEVELOPED CONCEPT DESIGN		RD-2941	A



LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORK BOUNDARY
- SURVEY
- CADASTRAL
- KING GEORGE ROAD UPGRADE (BY OTHERS)
- EXISTING PAVEMENT
- CUT AND COVER STRUCTURE
- SHARED PATH
- MAINLINE TUNNEL
- RETAINING WALL
- NOISE WALL
- MAINTENANCE GATE FOR CROSS CARRIAGEWAY ACCESS
- BOUNDARY FENCE
- CYCLE SAFE BALUSTRADE
- MFPX — CONTROL LINE - SHARED PATH



KEY PLAN

NOT FOR CONSTRUCTION

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M5N-AJV-MOD-200-300-RD-WESTERN SUP_A.txt	A	22.04.2016	DEVELOPED CONCEPT DESIGN	M.P	

PROJECT BREAKDOWN STRUCTURE: M5N-AJV-DPK-200-300-RD-2010

SCALES ON A3 SIZE DRAWING: SCALE 1:1000 (10 0 10 20) AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56 — HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME	PLOT BY
22/04/2016 9:55:06 AM	mthatcher

TITLE	NAME	DATE
DRAWN	C.BROCK	22.04.2016
DRG CHECK	S. BYRNE	22.04.2016
DESIGN	M. JAMES	22.04.2016
DESIGN CHECK	A.GOSBY	22.04.2016
ZONE MANAGER	J. YIP	22.04.2016
DESIGN MANAGER	M.PERCIVAL	22.04.2016

CLIENT

DOCUMENT NUMBER: M5N-AJV-DWG-200-300-RD-2942

WESTCONNEX NEW M5

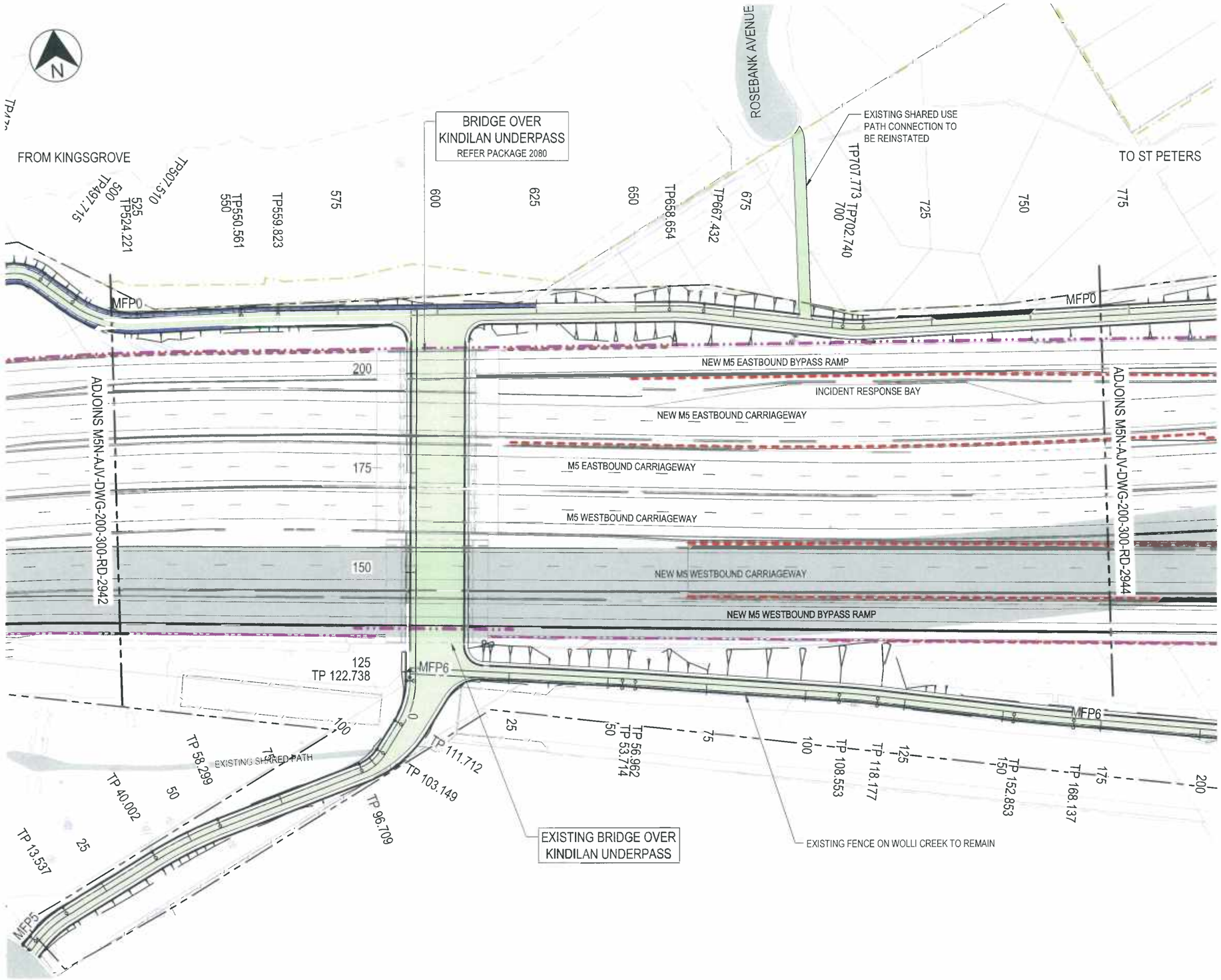
A3

WESTERN INTERCHANGE AND PORTALS
SHARED USE PATH GEOMETRY
PLAN

SHEET 2 OF 6

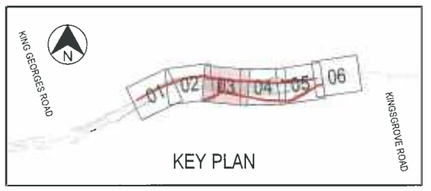
RMS REGISTRATION No.:

ISSUE STATUS	EDMS No.	SHEET No.	REV
DEVELOPED CONCEPT DESIGN		RD-2942	A



LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORK BOUNDARY
- SURVEY
- CADASTRAL
- KING GEORGE ROAD UPGRADE (BY OTHERS)
- EXISTING PAVEMENT
- CUT AND COVER STRUCTURE
- SHARED PATH
- MAINLINE TUNNEL
- RETAINING WALL
- NOISE WALL
- MAINTENANCE GATE FOR CROSS CARRIAGEWAY ACCESS
- BOUNDARY FENCE
- CYCLE SAFE BALUSTRADE
- MFPX — CONTROL LINE - SHARED PATH



KEY PLAN

NOT FOR CONSTRUCTION

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED

0 5 10 15 20 25 30 35 40 45 50mm ON A3 SIZE ORIGINAL

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REV	DATE	AMENDMENT / REVISION DESCRIPTION	APPROVAL
A	22.04.2016	DEVELOPED CONCEPT DESIGN	M.P

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-200-300-RD-2010

SCALES ON A3 SIZE DRAWING
SCALE 1:1000 10 0 10 20 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

CPB CONTRACTORS · DRAGADOS · SAMSUNG · SAMSUNG C&T · Golder Associates · HASSELL · AJJV

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME: 22/04/2016 9:55:26 AM
PLOT BY: mthatcher

TITLE	NAME	DATE
DRAWN	C.BROCK	22.04.2016
DRG CHECK	S. BYRNE	22.04.2016
DESIGN	M. JAMES	22.04.2016
DESIGN CHECK	A.GOSBY	22.04.2016
ZONE MANAGER	J. YIP	22.04.2016
DESIGN MANAGER	M.PERCIVAL	22.04.2016

CLIENT

DOCUMENT NUMBER
M5N-AJV-DWG-200-300-RD-2943

WESTCONNEX NEW M5

A3

WESTERN INTERCHANGE AND PORTALS
SHARED USE PATH GEOMETRY
PLAN

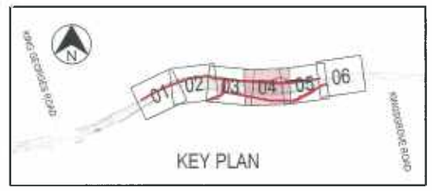
SHEET 3 OF 6

RMS REGISTRATION No.

ISSUE STATUS	EDMS No.	SHEET No.	REV
DEVELOPED CONCEPT DESIGN		RD-2943	A

LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORK BOUNDARY
- SURVEY
- CADASTRAL
- KING GEORGE ROAD UPGRADE (BY OTHERS)
- EXISTING PAVEMENT
- CUT AND COVER STRUCTURE
- SHARED PATH
- MAINLINE TUNNEL
- RETAINING WALL
- NOISE WALL
- MAINTENANCE GATE FOR CROSS CARRIAGEWAY ACCESS
- BOUNDARY FENCE
- CYCLE SAFE BALUSTRADE
- MFPX — CONTROL LINE - SHARED PATH



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M5N-AJV-MOD-200-300-RD-WESTERN SUP_A.txt	A	22.04.2016	DEVELOPED CONCEPT DESIGN	M.P

PROJECT BREAKDOWN STRUCTURE
M5N-AJV-DPK-200-300-RD-2010

SCALES ON A3 SIZE DRAWING
SCALE 1.1000 10 0 10 20 AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56
HEIGHT DATUM: AHD

WestConnex New M5

AURECON JACOBS NEW M5 JOINT VENTURE

PLOT DATE / TIME: 22/04/2016 9:55:45 AM
PLOT BY: mthatcher

TITLE	NAME	DATE
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DRG CHECK	S. BYRNE	22.04.2016
DESIGN	M. JAMES	22.04.2016
DESIGN CHECK	A.GOSBY	22.04.2016
ZONE MANAGER	J. YIP	22.04.2016
DESIGN MANAGER	M.PERCIVAL	22.04.2016

CLIENT

DOCUMENT NUMBER
M5N-AJV-DWG-200-300-RD-2944

WESTCONNEX NEW M5

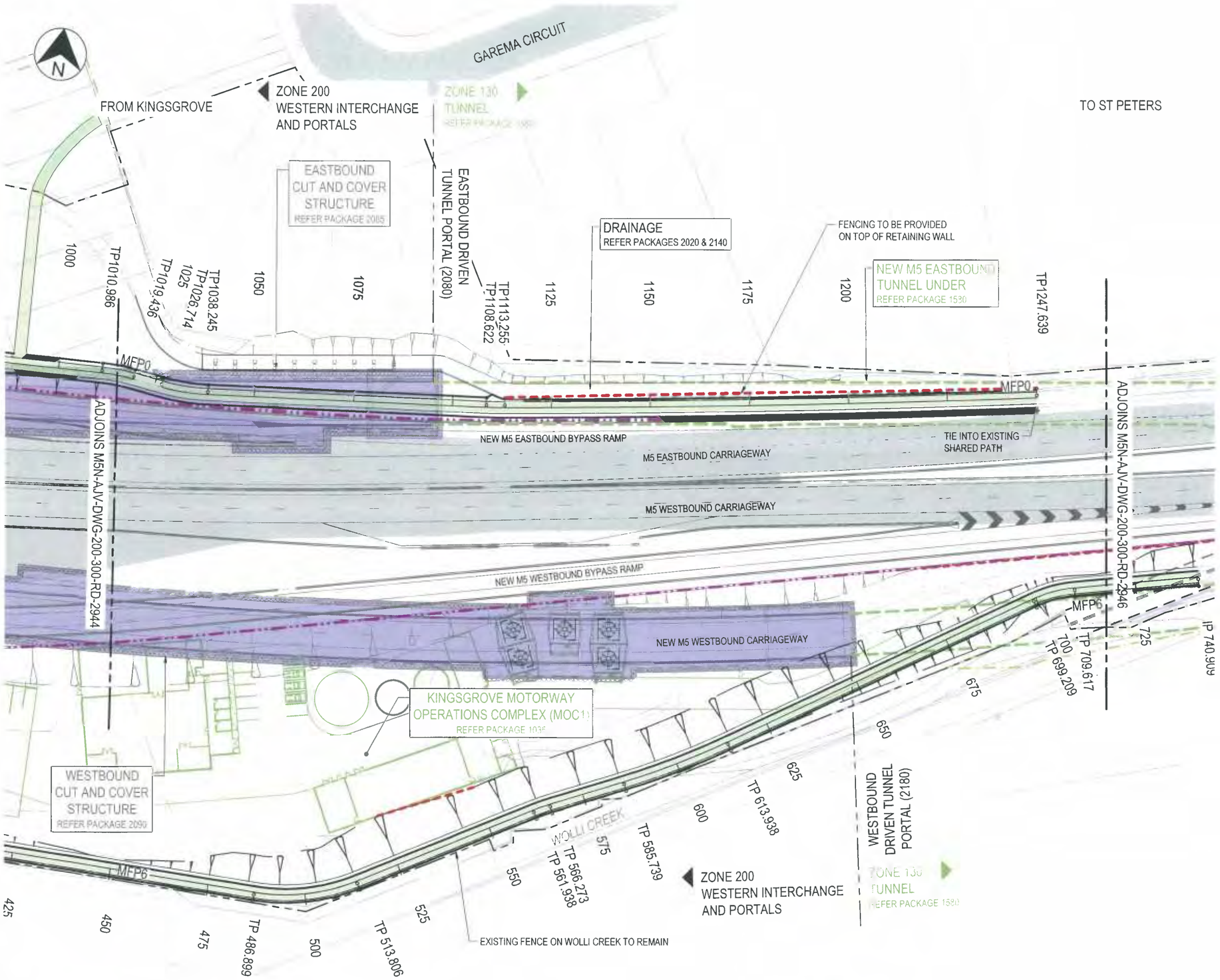
A3

WESTERN INTERCHANGE AND PORTALS
SHARED USE PATH GEOMETRY
PLAN

SHEET 4 OF 6

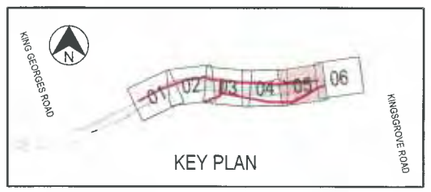
RMS REGISTRATION No.

ISSUE STATUS	EDMS No.	SHEET No.	REV
DEVELOPED CONCEPT DESIGN		RD-2944	A



LEGEND

- PERMANENT WORKS BOUNDARY
- TEMPORARY WORK BOUNDARY
- SURVEY
- CADASTRAL
- KING GEORGE ROAD UPGRADE (BY OTHERS)
- EXISTING PAVEMENT
- CUT AND COVER STRUCTURE
- SHARED PATH
- MAINLINE TUNNEL
- RETAINING WALL
- NOISE WALL
- MAINTENANCE GATE FOR CROSS CARRIAGEWAY ACCESS
- BOUNDARY FENCE
- CYCLE SAFE BALUSTRADE
- MFPX — CONTROL LINE - SHARED PATH



KEY PLAN

NOT FOR CONSTRUCTION

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M5N-AJV-MOD-200-300-RD-WESTERN SUP_A.txt	A	22.04.2016	DEVELOPED CONCEPT DESIGN	M.P

PROJECT BREAKDOWN STRUCTURE: M5N-AJV-DPK-200-300-RD-2010

SCALES ON A3 SIZE DRAWING

SCALE 1:1000 (10 0 10 20) AT A3

CO-ORDINATE SYSTEM: MGA ZONE 56 — HEIGHT DATUM: AHD

WestConnex New M5

CPB CONTRACTORS | DRAGADOS | SAMSUNG C&T | Golder Associates | AJJV AURECON JACOBS NEW M5 JOINT VENTURE | HASSELL

PLOT DATE / TIME	PLOT BY
22/04/2016 9:56:04 AM	mthatcher

TITLE	NAME	DATE
DRAWN	C.BROCK	22.04.2016
DRG CHECK	S. BYRNE	22.04.2016
DESIGN	M. JAMES	22.04.2016
DESIGN CHECK	A.GOSBY	22.04.2016
ZONE MANAGER	J. YIP	22.04.2016
DESIGN MANAGER	M.PERCIVAL	22.04.2016

CLIENT

DOCUMENT NUMBER: M5N-AJV-DWG-200-300-RD-2945

WESTCONNEX NEW M5

A3

WESTERN INTERCHANGE AND PORTALS
SHARED USE PATH GEOMETRY
PLAN

SHEET 5 OF 6

RMS REGISTRATION No.

ISSUE STATUS	EDMS No.	SHEET No.	REV
DEVELOPED CONCEPT DESIGN		RD-2945	A

APPENDIX 5

Sydney Park to Alexandria to Moore Park

Mitchell Road

Sydney Park Road

Sydney Park Road

03-01-01
A

3100

3000

3000

3000

3000

Legend

- Proposed cycle path
- Proposed shared path
- Proposed shared path
- Proposed planting
- Proposed pedestrian crossing
- Concrete kerb raised
- Parking space removed
- Potential parking space
- Proposed on-road cycle path marking
- Existing tree
- Bicycle crossing activation button / lamp (Indicative)
- Existing crossing activation button / lamp
- Existing ATN route - Council
- New M5 extent landscape works
- New M5 extent footpath
- New M5 extent road
- Original kerb alignment
- B Existing bus stop
- 01 Connection into Sydney Park
- 02 Proposed shared path (New M5 extent)
- 03 Intersection treatment (raised threshold to be developed)
- 04 Proposed separated cycle path (King Street Gateway)
- 05 Intersection treatment
- 06 Proposed separated cycle path
- 07 Intersection treatment (raised threshold to be developed)
- 08 Signalised pedestrian crossing
- 09 Shared path converted to pedestrian path
- 10 Proposed public street furniture
- 11 Proposed planting
- 12 Cycle intersection treatment
- 13 Additional cycle crossing lamps (Indicative)
- A Island removed
- B 4 car parking spaces removed
- C Dedicated turning lane retained
- D Island removed
- E No right turn
- F Lane removal being investigated
- G Widened island (King Street Gateway)
- H 3 car parking spaces removed

NOTE: Final concept design for cycle paths on Sydney Park Road and Mitchell Road in consultation with Councils

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Client
Roads and Maritime Service

Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
B51 Planning Condition

Key Plan

Scale & Orientation
1: 500 @ A3

0 2 4 6 8 10 M

All dimensions are in millimetres unless otherwise noted. Do not scale from this drawing.

Revision Log

Rev	Revision Description	By/Checked	Date
F	Revised	LP/DK	10/9/17
E	Revised	LP/DK	19/7/17
D	Revised For Submission	LP/DK	14/7/17
C	For Submission	LP/DK	29/6/17
B	Draft For Revision	LP/DK	19/5/17
A	For Consultation	LP/DK	8/3/17

Sheet Title
Sydney Park - Alexandria - Moore Park

Sheet No. 02-01-01

Rev F

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Phase
B51 Planning Condition

Key Plan

Scale & Orientation
1: 500 @ A3
0 2 4 6 8 10 M
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Revision Log

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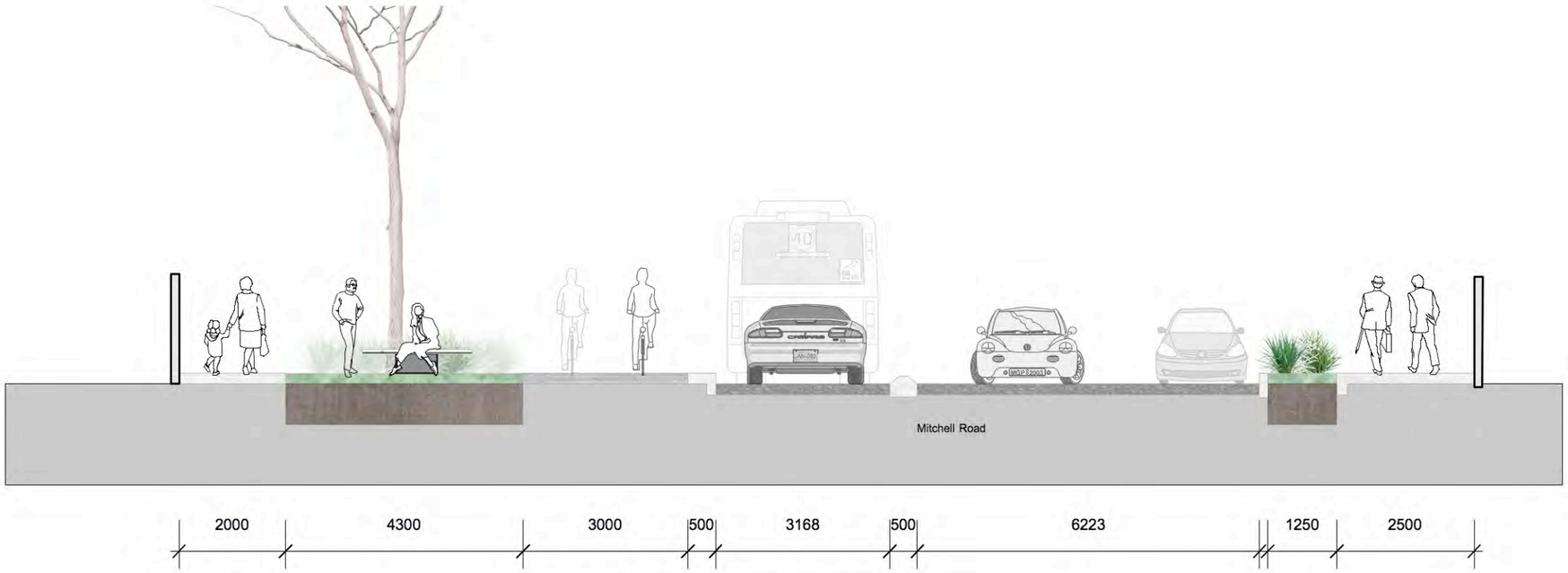
C	For Submission	LP/DK	29/6/17
B	Draft For Revision	LP/DK	19/5/17
A	For Consultation	LP/DK	8/3/17

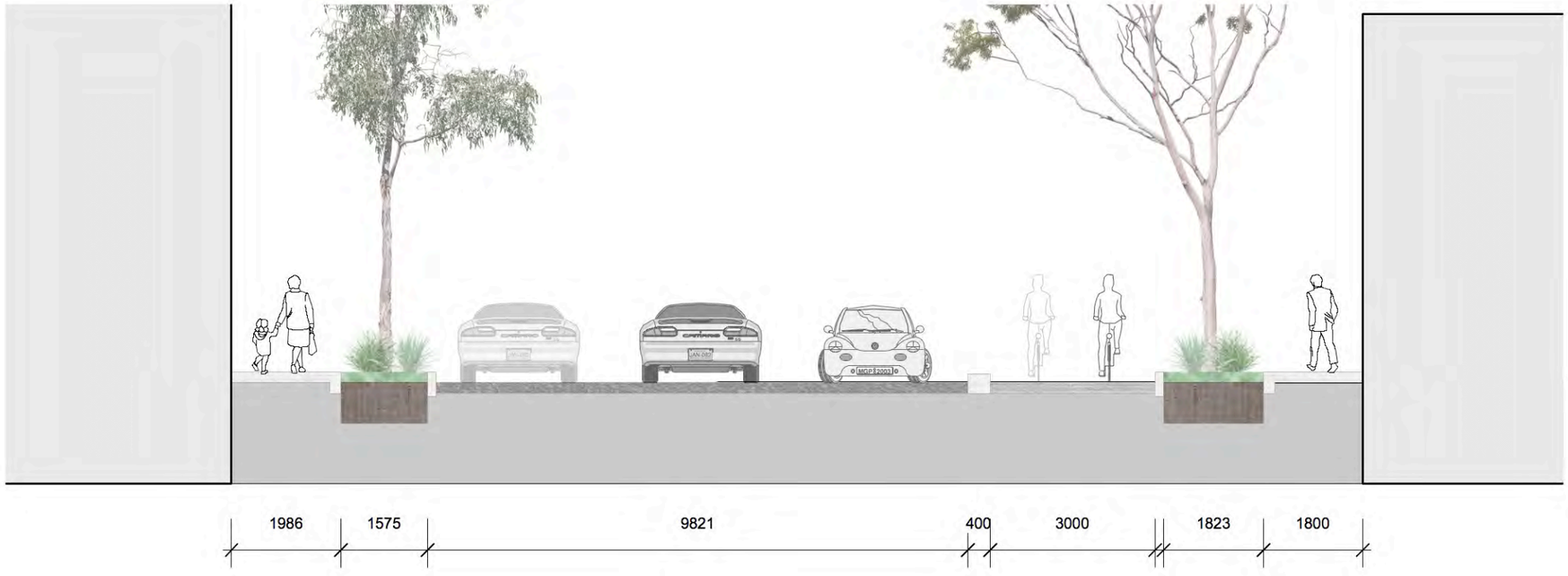
Sheet Title
Sydney Park - Alexandria - Moore Park

Sheet No. 02-01-02

Rev F



A Mitchell Road
Section - Scale 1:100



B Huntley Street
Section - Scale 1:100

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Address
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Phase
Project Phase

Key Plan

Scale & Orientation
1: 100 @ A3

0 1 2 3 M

All dimensions are in millimetres unless otherwise noted. Do not scale from this drawing.

Revision Log

Rev	Revision Description	By/Checked	Date
C	Revised	LP/DK	19/7/17
B	Revised For Submission	LP/DK	14/7/17
A	For Submission	LP/DK	29/6/17

Sheet Title
Section - Sydney Park - Alexandria - Moore Park

Sheet No.
03-01-01

Rev
C

APPENDIX 6

Campbell Street & Bedwin Road connections

Legend

- Proposed cycle path
- Proposed shared path
- Proposed planting
- Existing footpath
- Proposed footpath
- Concrete kerb raised
- Existing tree
- Bicycle crossing activation button / lamp (Indicative)
- Existing crossing activation button / lamp
- Existing ATN route - Council
- New M5 extent landscape works
- New M5 extent footpath
- New M5 extent road
- Original kerb alignment
- Proposed on road cycle path marking

01	Upgrade to footpath (extent of New M5)
02	Separated cycle way (extent of New M5)
03	Proposed planting (extent of New M5)
04	Proposed new alignment for cycle way crossing
05	Cycle crossing
06	Cyclist kerb ramp
07	Proposed separated cycle path
08	Proposed planting
09	Future link (Camdenville Park)
10	2m Pedestrian footpath
11	Proposed pedestrian/cycle bridge across railway
12	Upgrading connection to existing stairs
13	Proposed pedestrian crossing
14	Proposed separated cycle lane - southbound
15	Proposed separated cycle lane - eastbound
16	Proposed pedestrian / cycleway crossing - raised threshold
17	Island re-alignment
A	Existing kerb alignment
B	Existing bridge edge

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Roads and Maritime Service

Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
Project Phase

Key Plan

Scale & Orientation
1: 500 @ A3

0 2 4 6 8 10 M

All dimensions are in millimetres unless otherwise noted. Do not scale from this drawing.

Revision Log

Rev	Revision Description	By/Checked	Date
E	Revised	LP/DK	19/7/17
D	Revised For Submission	LP/DK	14/7/17
C	For Submission	LP/DK	29/6/17
B	Draft For Review	LP/DK	7/6/17
A	Draft For Review	LP/DK	31/5/17

Sheet Title
Campbell Street & Bedwin Road Connections

Sheet No. 02-02-01

Rev E

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Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
Project Phase

Key Plan

Scale & Orientation
1: 500 @ A3

0 2 4 6 8 10 M

All dimensions are in millimetres unless otherwise noted. Do not scale from this drawing.

Revision Log

Rev	Revision Description	By/Checked	Date
E	Revised	LP/DK	19/7/17
D	Revised For Submission	LP/DK	14/7/17
C	For Submission	LP/DK	29/6/17
B	Draft For Review	LP/DK	7/6/17
A	Draft For Review	LP/DK	31/5/17

Sheet Title
Campbell Street & Bedwin Road Connections

Sheet No. 02-02-02

Rev E

Legend

- Proposed cycle path
- Proposed shared path
- Proposed planting
- Existing footpath
- Proposed footpath
- Concrete kerb raised
- Existing tree
- Bicycle crossing activation button / lamp (Indicative)
- Existing crossing activation button / lamp
- Existing ATN route - Council
- New M5 extent landscape works
- New M5 extent footpath
- New M5 extent road
- Original kerb alignment
- Proposed on road cycle path marking
- 01 Upgrade to footpath (extent of New M5)
- 02 Separated cycle way (extent of New M5)
- 03 Proposed planting (extent of New M5)
- 04 Proposed new alignment for cycle way crossing
- 05 Cycle crossing
- 06 Cyclist kerb ramp
- 07 Proposed separated cycle path
- 08 Proposed planting
- 09 Future link (Camdenville Park)
- 10 Proposed shared path
- 11 Proposed pedestrian/cycle bridge across railway
- 12 Upgrading connection to existing stairs
- 13 Proposed pedestrian crossing
- 14 Proposed separated cycle lane - southbound
- 15 Proposed separated cycle lane - eastbound
- 16 Proposed pedestrian / cycleway crossing - raised threshold
- 17 Island re-alignment
- A Existing kerb alignment
- B Existing bridge edge

Bedwin Road

Unwins Bridge Road

Unwins Bridge Rd ATN Under Investigation

May Street

Campbell Street

Camdenville Park Future Link

03-02-02 A

03-02-02 B

2000

2500

3000

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WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
B51 Planning Condition

Key Plan

Scale & Orientation
1: 500 @ A3

0 2 4 6 8 10 M

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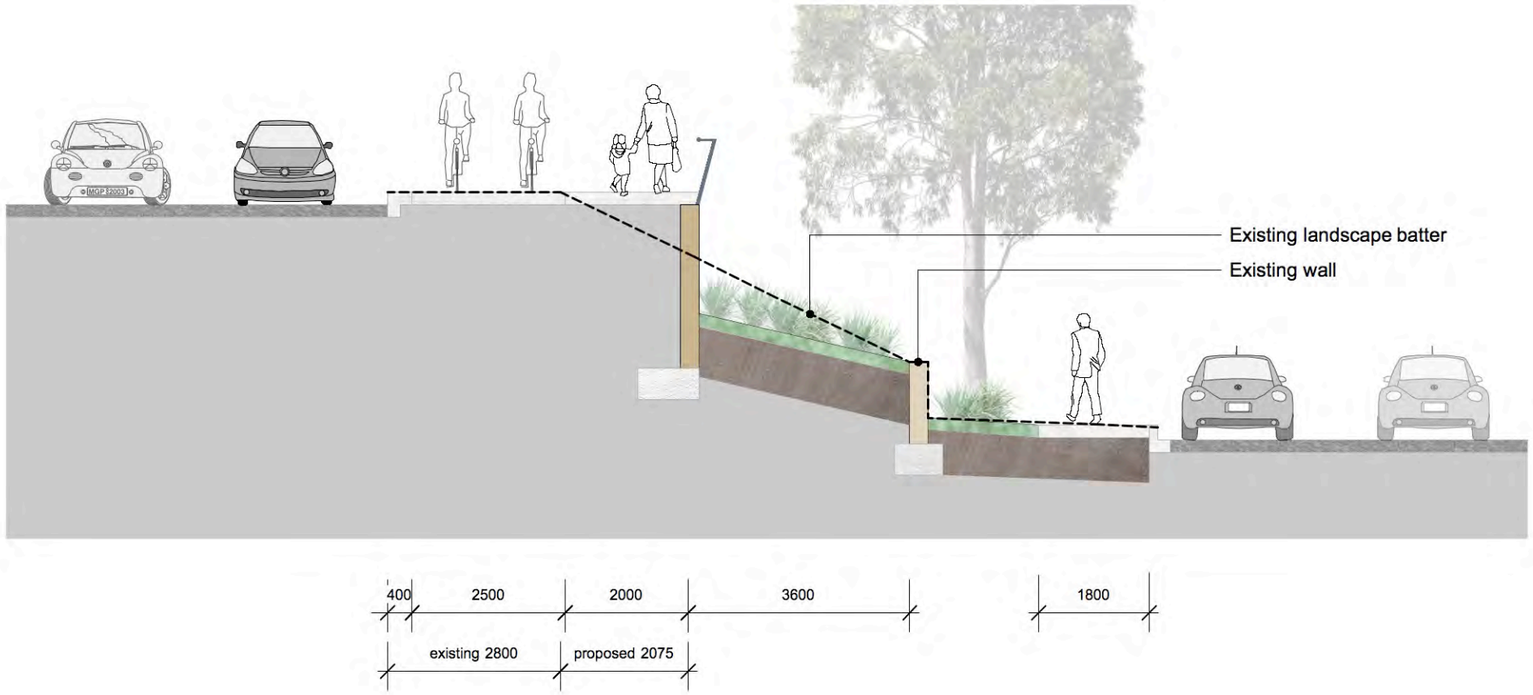
Revision Log

Rev	Revision Description	By/Checked	Date
G	Revised For Submission	LP/DK	13/9/17
F	Revised	LP/DK	19/7/17
E	Revised For Submission	LP/DK	14/7/17
D	For Submission	LP/DK	29/6/17
C	Draft For Review	LP/DK	7/6/17

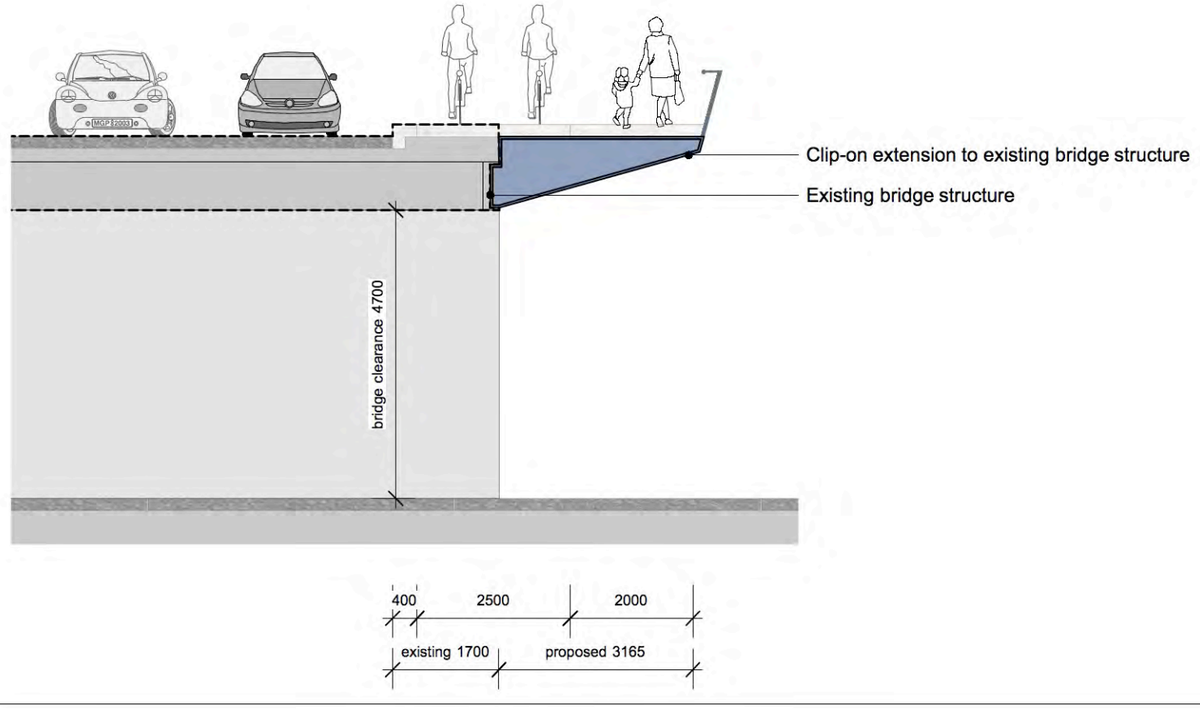
Sheet Title
Campbell Street & Bedwin Road Connections

Sheet No. 02-02-03

Rev G



A Bedwin Road
Section - Scale 1:100



B Bedwin Road
Section - Scale 1:100

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Client
Roads and Maritime Service

Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
Project Phase

Key Plan

Scale & Orientation
1: 100 @ A3

0 1 2 3 M

All dimensions are in millimetres unless otherwise noted. Do not scale from this drawing.

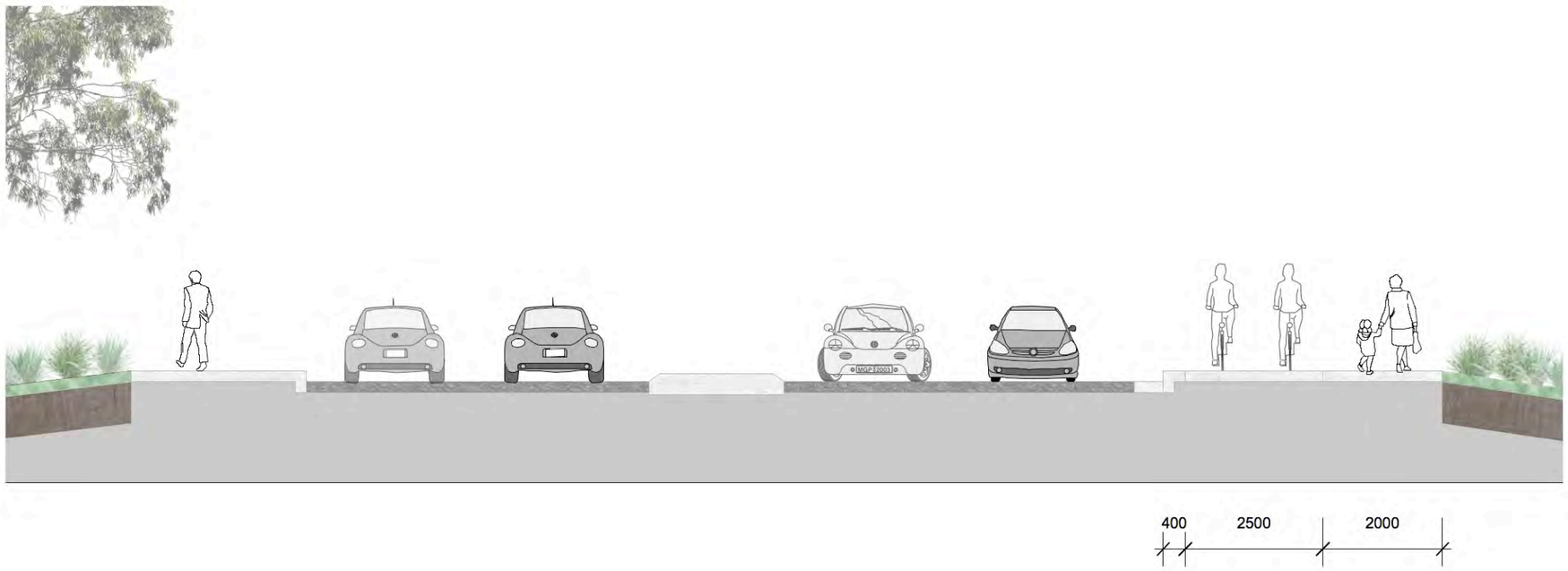
Revision Log

Rev	Revision Description	By/Checked	Date
C	Revised For Submission	LP/DK	14/7/17
B	For Submission	LP/DK	29/6/17
A	Draft For Review	LP/DK	7/6/17

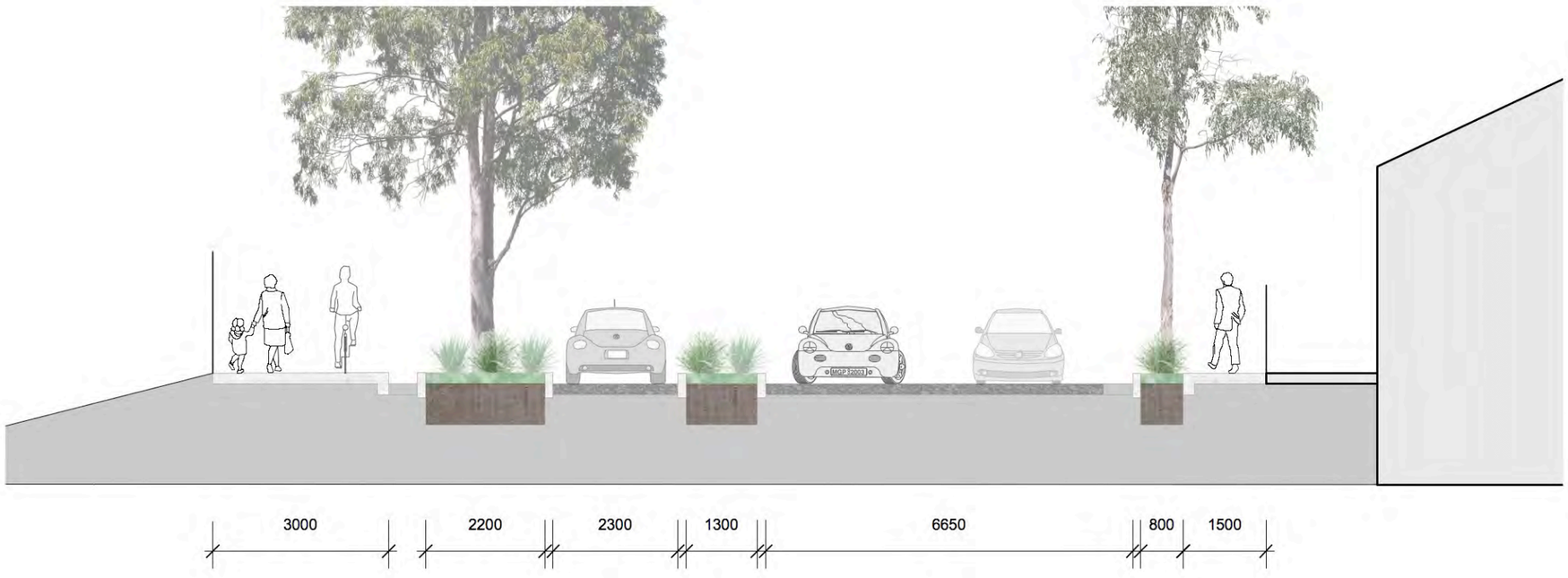
Sheet Title
Section - Campbell Street & Bedwin Road Connections

Sheet No. 03-02-01

Rev C



A Bedwin Road
Section - Scale 1:100



B May Street
Section - Scale 1:100

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Phase
Project Phase

Key Plan

Scale & Orientation
1: 100 @ A3

0 1 2 3 M

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Revision Log

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C	Revised For Submission	LP/DK	13/9/17
B	Revised For Submission	LP/DK	14/7/17
A	For Submission	LP/DK	29/6/17

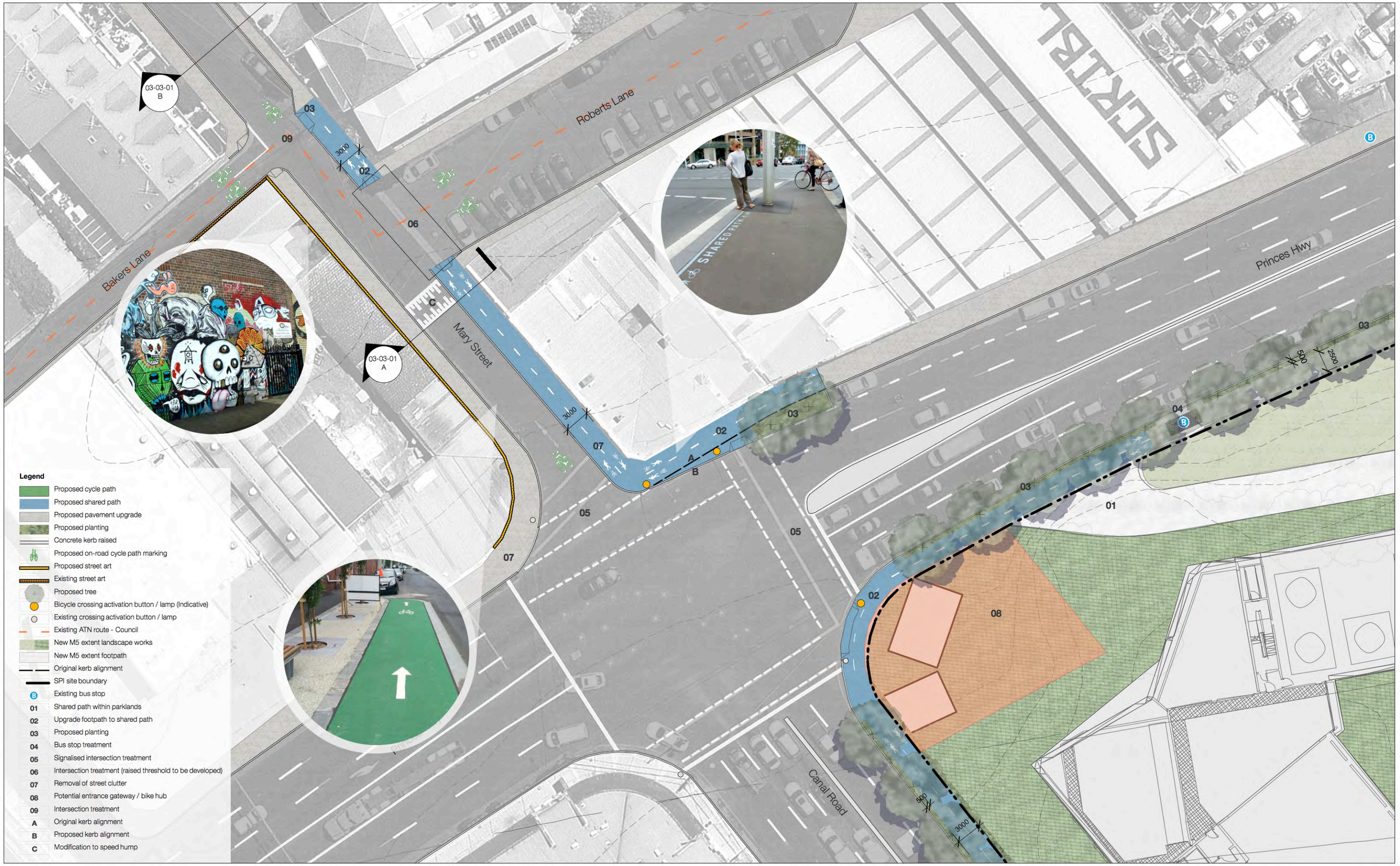
Sheet Title
Section - Campbell Street & Bedwin Road Connections

Sheet No.
03-02-02

Rev
C

APPENDIX 7

Princes Highway and Canal Road Intersection



Legend

- Proposed cycle path
- Proposed shared path
- Proposed pavement upgrade
- Proposed planting
- Concrete kerb raised
- Proposed on-road cycle path marking
- Proposed street art
- Existing street art
- Proposed tree
- Bicycle crossing activation button / lamp (Indicative)
- Existing crossing activation button / lamp
- Existing ATN route - Council
- New M5 extent landscape works
- New M5 extent footpath
- Original kerb alignment
- SPI site boundary
- B — Existing bus stop
- 01 — Shared path within parklands
- 02 — Upgrade footpath to shared path
- 03 — Proposed planting
- 04 — Bus stop treatment
- 05 — Signalised intersection treatment
- 06 — Intersection treatment (raised threshold to be developed)
- 07 — Removal of street clutter
- 08 — Potential entrance gateway / bike hub
- 09 — Intersection treatment
- A — Original kerb alignment
- B — Proposed kerb alignment
- C — Modification to speed hump

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Client
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Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
B51 Planning Condition

Key Plan

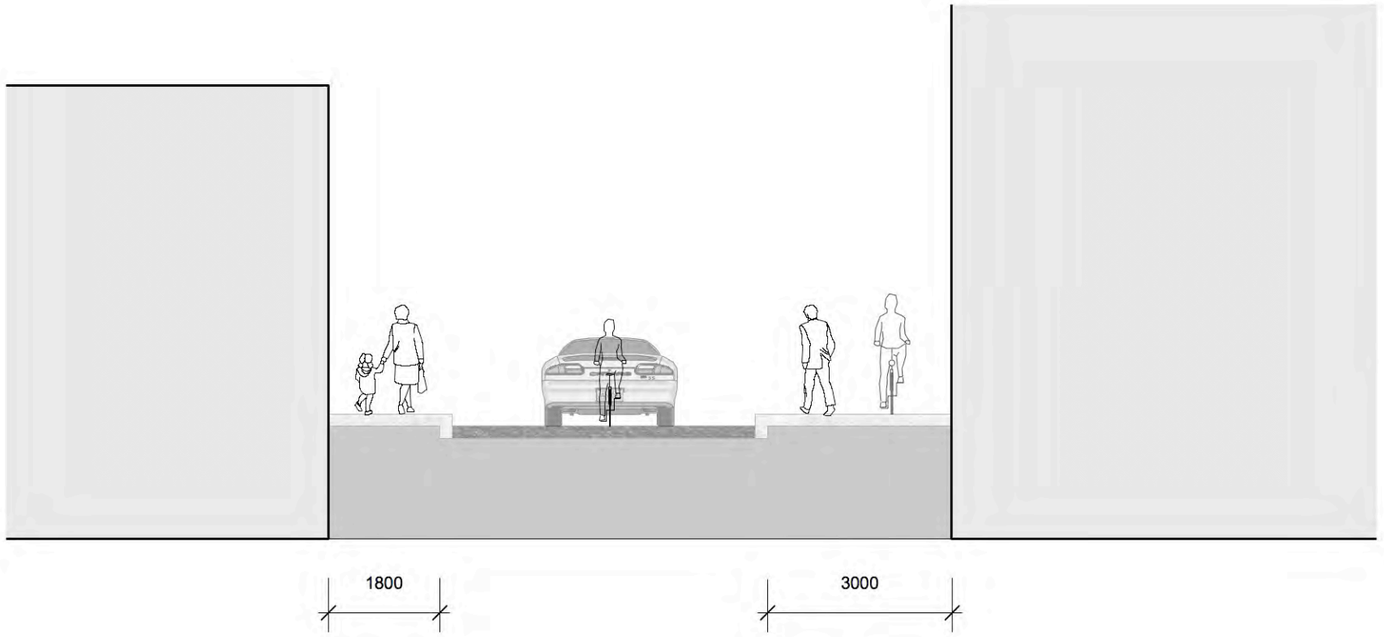
Scale & Orientation
1: 400 @ A3
0 2 4 6 8 10 M
All dimensions are in millimetres unless otherwise noted. Do not scale from this drawing.

Revision Log

Rev	Revision Description	By/Checked	Date
F	Revised	LP/DK	10/9/17
E	Revised	LP/DK	19/7/17
D	Revised For Submission	LP/DK	14/7/17
C	For Submission	LP/DK	28/6/17
B	Draft For Revision	LP/DK	19/5/17
A	For Consultation	LP/DK	8/3/17

Sheet Title
Princes Highway & Canal Road Intersection

Sheet No. 02-03-01
Rev F



A Mary Street
Section - Scale 1:100

B Mary Street
Section - Scale 1:100

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Client
Roads and Maritime Service

Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
Project Phase

Key Plan

Scale & Orientation
1: 100 @ A3

0 1 2 3 M

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Revision Log

Rev	Revision Description	By/Checked	Date
C	Revised For Submission	LP/DK	13/9/17
B	Revised For Submission	LP/DK	14/7/17
A	For Submission	LP/DK	29/6/17

Sheet Title
Section - Princes Highway & Canal Road Intersection

Sheet No.
03-03-01

Rev
C

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APPENDIX 10

Safety Audit - SPI Area

Westconnex RMS Planning Condition B51 Safety Audit

Legend

- WCX Commitments - Separated Cycleway
- WCX Commitments - Shared Cycleway
- Regional Route - Council Existing
- Regional Route - Council Proposed
- Local Route - Low Vehicle Interaction
- Local Route - Med Vehicle Interaction
- St Peters Interchange Boundary
- 1km Boundary from Interchange

Enmore Park
1km
A2MP Shared Path
Euston Rd
Edgeware Rd
St Peters Station
Sydney Park Rd
Victoria Rd
Camdenville Park
Princes Hwy
Sydney Park
Metro
Sydenham Rd
Unwins Bridge Rd
Burrows Rd
Bourke Rd
Sydenham Station
Fraser Park
Alexandra Canal
Airport Link
Canal Rd
Princes Hwy
O'Riordan St
IKEA
Mascot Station
Coward St
Quantas Dr
Airport Dr
1km
Sydney Airoprt
Princes Hwy

Legend

- Connectivity Gaps to be addressed in B51
- WCX Commitments - Separated Cycleway
- WCX Commitments - Shared Cycleway
- Regional Route - Council Existing
- Regional Route - Council Proposed
- Local Route - Low Vehicle Interaction
- Local Route - Med Vehicle Interaction
- St Peters Interchange Boundary
- 1km Boundary from Interchange

Edgeware Rd
St Peters Station
Sydney Park Rd
Euston Rd
Camdenville Park
Metro Park
Princes Hwy
Sydney Park
Burrows Rd
Sydenham Station
Princes Hwy
Airport Link
Alexandra Canal

SAFETY AUDIT - MITCHELL ROAD

Site	Code	Description	Safety issue	Probability	Severity of consequence
Mitchell Road					
	A 1	Accumulation of soil and other sediments at low point in pavement (various locations)	Cyclist may loose traction over dirt	Possible	Minor
	A 2	Uneven pavers due to tree roots (various locations)	Cyclist may hit uneven surface	Possible	Minor
	A 3	Overgrowth of plants narrows shared path (various locations)	May cause congestion and a collision	Likely	Minor
	A 4	Blind corner driveway	May cause congestion and a collision	Likely	Moderate
	A 5	Blind corner driveway	May cause congestion and a collision	Likely	Moderate
	A 6	Overgrowth of plants narrows shared path (various locations)	May cause congestion and a collision	Likely	Minor
	A 7	Uneven surface (various locations)	Cyclist may hit uneven surface	Possible	Minor
	A 8	Uneven surface (various locations)	Cyclist may hit uneven surface	Possible	Minor
	A 9	Uneven surface (various locations)	Cyclist may hit uneven surface	Possible	Minor
	A 10	Shared path narrows to 1.6m	May cause congestion and a collision	Possible	Minor
	A 11	Narrow shared path and edge level drop off	Cyclist may via off path and become unstable on level change	Possible	Minor
	A 12	Service pit lid provides uneven surface	Cyclist may hit uneven surface	Possible	Minor
	A 13	Accumulation of soil and other sediments at low point in pavement (various locations)	Cyclist may hit dirt	Possible	Minor
	A 14	Shared path ends, limited signage, no designated crossing	Confusing for cyclists, lack of priority	Possible	Not significant
	A 15	Accumulation of soil and other sediments at low point in pavement (various locations)	Cyclist may loose traction over dirt	Possible	Minor
	A 16	Pavement cycle symbol in car park zone	Cyclist may follow symbol too close to parked vehicles	Unlikely	Minor
	A 17	Road break	Cyclists have to merge onto footpath and may cause conflict with pedestrians	Likely	Not significant
	A 18	Tree roots	Tree roots may hinder future development of path	N/A	N/A

			Potential Consequences				
			L6	L5	L4	L3	L2
			Minor injuries or discomfort. No medical treatment or measureable physical effects.	Injuries or illness requiring medical treatment. Temporary impairment.	Injuries or illness requiring hospital admission.	Injury or illness resulting in permanent impairment.	Fatality
			Not Significant	Minor	Moderate	Major	Severe
Likelihood	Expected to occur regularly under normal circumstances	Almost Certain	Medium	High	Very High	Very High	Very High
	Expected to occur at some time	Likely	Medium	High	High	Very High	Very High
	May occur at some time	Possible	Low	Medium	High	High	Very High
	Not likely to occur in normal circumstances	Unlikely	Low	Low	Medium	Medium	High
	Could happen, but probably never will	Rare	Low	Low	Low	Low	Medium

SAFETY AUDIT - MITCHELL ROAD

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Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
B51 Planning Condition

Key Plan

Scale & Orientation
1: 500 @ A3

0 2 4 6 8 10 M

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Revision Log

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A	For Consultation	LP/DK	8/3/17

Sheet Title
Audit - Mitchell Road

Sheet No. 01-01-01

Rev A

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Sheet No. 01-01-02

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Sheet Title
Audit - Mitchell Road

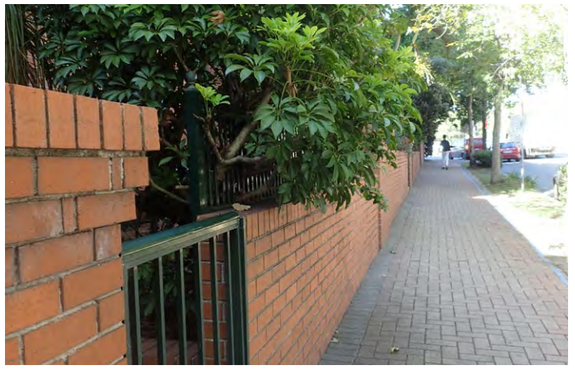
Sheet No.
01-01-03

Rev
A

SAFETY AUDIT - MITCHELL ROAD

A 1

A 2



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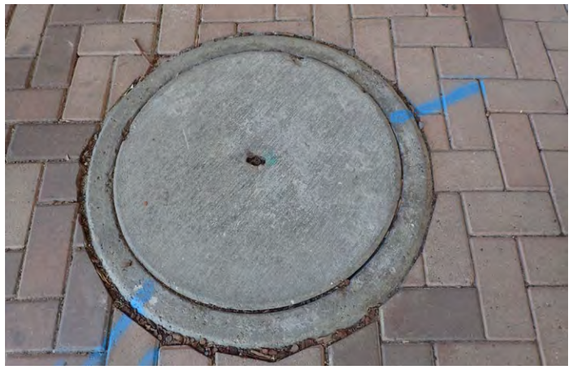
A 4

A 5

A 6



A 7

A 8

A 9

A 10

A 11

A 12

SAFETY AUDIT - MITCHELL ROAD

A 13

A 14

A 15

A 16

A 17

A 18

SAFETY AUDIT - CAMPBELL STREET

Site	Code	Description	Safety issue	Probability	Severity of consequence
Campbell Street					
	B 1	Footpath narrows due to light post (various locations)	May cause congestion and a collision	Likely	Minor
	B 2	Vehicle barrier narrows footpath	May cause congestion and a collision	Possible	Minor
	B 3	Footpath narrows to 1.5m on both sides of the bridge	May cause congestion and a collision	Likely	Minor
	B 4	Uneven surface (various locations)	Cyclist may hit uneven surface	Possible	Minor
	B 5	Narrow vehicle lanes on busy road	On road cyclist may get hit by a moving vehicle	Possible	Major
	B 6	Footpath narrows due to road signs (various locations)	May cause congestion and a collision	Likely	Minor
	B 7	Uneven surface (various locations)	Cyclist may hit uneven surface	Possible	Minor
	B 8	Footpath narrows due to road signs (various locations)	May cause congestion and a collision	Likely	Minor
	B 9	Footpath narrows due to over grown tree (various locations)	May cause congestion and a collision	Likely	Minor
	B 10	Excessive amount of signage, poor way-finding	May cause confusion to cyclist		
	B 11	Gap between fence and footpath (various locations)	Cyclist may fall down gap	Possible	Minor
	B 12	Footpath narrows due to over grown tree (various locations)	May cause congestion and a collision	Likely	Minor
	B 13	Footpath narrows due to rubbish bins on the street after rubbish day	May cause congestion and a collision	Likely	Minor
	B 14	Uneven surface (various locations)	Cyclist may hit uneven surface	Possible	Minor
	B 15	Gap between railing and footpath (various locations)	Cyclist may fall down gap	Possible	Minor
	B 16	Bollard in the middle of narrow shared path	Cyclist may hit bollard and bollard may be unseen at night	Likely	Minor

			Potential Consequences				
			L6	L5	L4	L3	L2
			Minor injuries or discomfort. No medical treatment or measureable physical effects.	Injuries or illness requiring medical treatment. Temporary impairment.	Injuries or illness requiring hospital admission.	Injury or illness resulting in permanent impairment.	Fatality
			Not Significant	Minor	Moderate	Major	Severe
Likelihood	Expected to occur regularly under normal circumstances	Almost Certain	Medium	High	Very High	Very High	Very High
	Expected to occur at some time	Likely	Medium	High	High	Very High	Very High
	May occur at some time	Possible	Low	Medium	High	High	Very High
	Not likely to occur in normal circumstances	Unlikely	Low	Low	Medium	Medium	High
	Could happen, but probably never will	Rare	Low	Low	Low	Low	Medium

SAFETY AUDIT - CAMPBELL STREET

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Audit - Campbell Street

Sheet No. 01-02-01

Rev A

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Sheet No. 01-02-04

Rev A

SAFETY AUDIT - CAMPBELL STREET

B 1

B 2

B 3

B 4

B 5

B 6

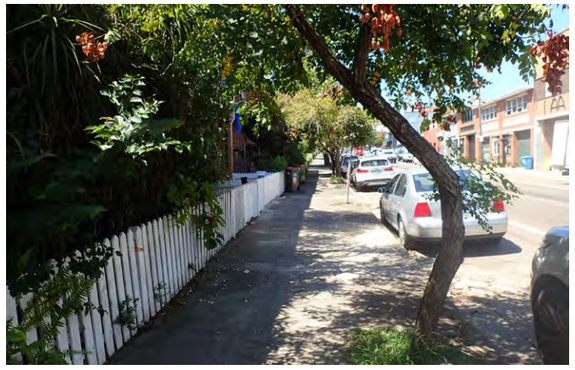
B 7

B 8

B 9

B 10

B 11



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SAFETY AUDIT - CAMPBELL STREET

B 13

B 14

B 15

B 16

SAFETY AUDIT - PRINCES HWY / CANAL ROAD

Site	Code	Description	Safety issue	Probability	Severity of consequence
Princes Hwy / Canal Road					
	C 1	Overgrowth of plants narrows shared path (various locations)	May cause congestion and a collision	Likely	Minor
	C 2	Very busy intersection, long waiting times at pedestrian crossing	Pedestrian / cyclist may atempt to cross road before signalised crossing	Possible	Minor
	C 3	Lack of pedestrian ramps at crossing	Cyclist has to via off crossing to use ramp	Likely	Moderate
	C 4	Uneven surface (various locations)	Cyclist may hit uneven surface	Likely	Minor
	C 5	High volumes of traffic in narrow one way side street	Not much room for on road cyclist	Likely	Moderate
	C 6	Poor alignment for pedestrian crossing	Pedestrian / cyclist may atempt to short cut corner of crossing	Likely	Minor
	C 7	Excessive amount of signage at entrance to May Street, poor way-finding	Cyclist may hit sign posts	Possible	Moderate
	C 8	Uneven surface (various locations)	Cyclist may hit uneven surface	Likely	Moderate
	C 9	Narrow footpath due to road signage (various locations)	Cyclist may hit sign next to busy road	Possible	Moderate
	C 10	Bus stop narrows footpath	Cyclist may have to dismount to get around bus stop	Likely	Not significant
	C 11	No pedestrian crossing - Pedestrians have to use 3 crossings to cross south western side of Princes Hwy	Pedestrian / cyclist may atempt to cross road with no signalised crossing	Possible	Minor

			Potential Consequences				
			L6	L5	L4	L3	L2
			Minor injuries or discomfort. No medical treatment or measureable physical effects.	Injuries or illness requiring medical treatment. Temporary impairment.	Injuries or illness requiring hospital admission.	Injury or illness resulting in permanent impairment.	Fatality
			Not Significant	**Minor**	**Moderate**	**Major**	**Severe**
Likelihood	Expected to occur regularly under normal circumstances	**Almost Certain**	**Medium**	**High**	**Very High**	**Very High**	**Very High**
	Expected to occur at some time	**Likely**	**Medium**	**High**	**High**	**Very High**	**Very High**
	May occur at some time	**Possible**	**Low**	**Medium**	**High**	**High**	**Very High**
	Not likely to occur in normal circumstances	**Unlikely**	**Low**	**Low**	**Medium**	**Medium**	**High**
	Could happen, but probably never will	**Rare**	**Low**	**Low**	**Low**	**Low**	**Medium**

SAFETY AUDIT - PRINCES HWY / CANAL ROAD

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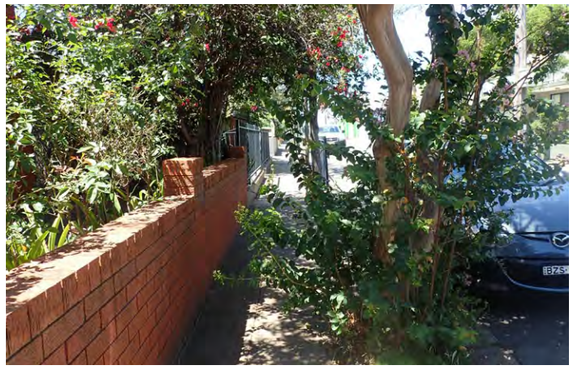
Sheet Title
Audit - Princes Hwy Intersection

Sheet No. 01-03-01

Rev A

SAFETY AUDIT - PRINCES HWY / CANAL ROAD



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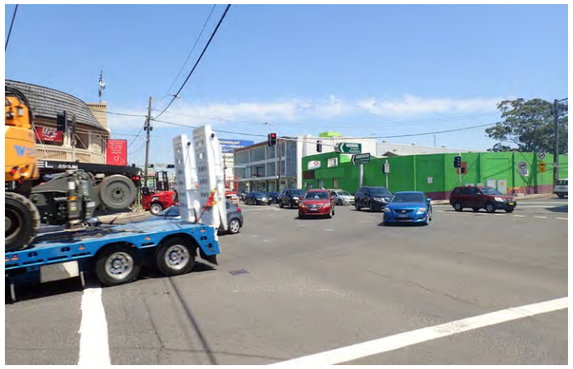

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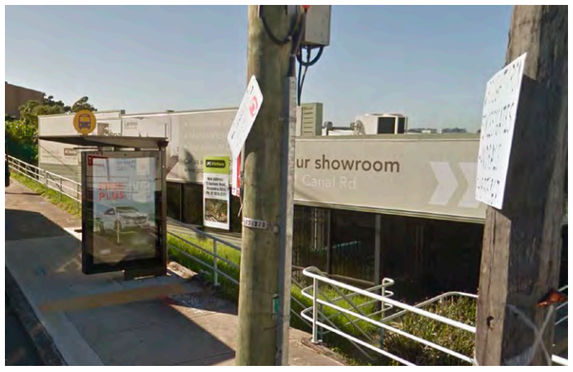
C 5

C 6

C 7

C 8

C 9



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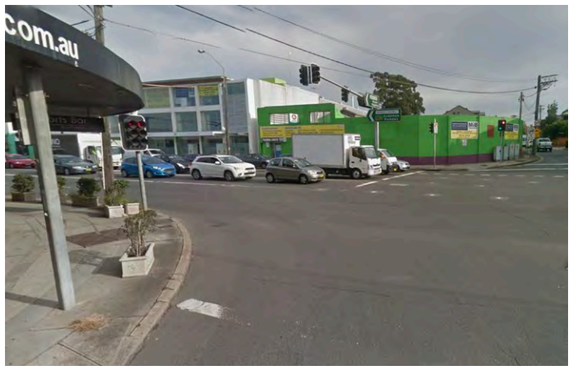

C 11

SAFETY AUDIT - CANAL ROAD

Site	Code	Description	Safety issue	Probability	Severity of consequence
Canal Road					
	D 1	Footpath narrows due to over grown grass (various locations)	May cause congestion and a collision	Likely	Minor
	D 2	Uneven surface (various locations)	Cyclist may hit uneven surface	Likely	Moderate
	D 3	Footpath narrows due to bus stop (various locations)	May cause congestion and a collision	Likely	Minor
	D 4	Footpath narrows due to over grown plants (various locations)	May cause congestion and a collision	Likely	Minor
	D 5	Uneven surface (various locations)	Cyclist may hit uneven surface	Likely	Moderate
	D 6	Uneven surface (various locations)	Cyclist may hit uneven surface	Likely	Moderate
	D 7	Leaf litter and dirt covering footpath (various locations)	cyclist may loose traction over leaf litter and dirt	Likely	Moderate
	D 8	Uneven surface (various locations)	Cyclist may hit uneven surface	Likely	Moderate
	D 9	Footpath narrows due to bus stop (various locations)	May cause congestion and a collision	Likely	Minor
	D 10	Footpath narrows due to over grown plants (various locations)	May cause congestion and a collision	Likely	Minor
	D 11	Small pedestrian crossing island	Pedestrians / cyclists are very close to miving vehicles	Possible	Moderate
	D 12	Footpath narrows due to hand rail and light post	May cause congestion and a collision	Likely	Minor
	D 13	Broken footpath at entrance to narrow bridge footpath	Pedestrians / cyclists are very close to vehicles	Possible	Severe
	D 14	Footpath narrows and kerb dissapears	Pedestrians / cyclists are very close to vehicles	Possible	Severe
	D 15	Uneven surface (various locations)	Cyclist may hit uneven surface	Possible	Minor
	D 16	No barrier between shop car park and footpath	Cyclist may get hit by vehicle	Possible	Minor
	D 17	Footpath narrows due to cuts in pavement	Cyclist may hit uneven surface	Possible	Minor
	D 18	Footpath narrows due to powerline post and services lid (various locations)	Cyclist may hit post or service lid	Possible	Minor
	D 19	Footpath narrows due to bus stop (various locations)	May cause congestion and a collision	Likely	Minor
	D 20	Footpath narrows due to cuts in pavement	Cyclist may hit uneven surface	Possible	Minor
	D 21	Footpath narrows due to sign post in pavement (various locations)	Cyclist may hit sign post	Likely	Minor
	D 22	Lack of pedestrian crossing infrastructure	Cyclist has to check with truck driver before crossing	Possible	Minor
	D 23	Footpath narrows due to powerline post (various locations)	Cyclist may hit powerline post	Likely	Minor
	D 24	Footpath narrows due to over grown plants (various locations)	May cause congestion and a collision	Likely	Minor
	D 25	Footpath narrows due to over grown plants and post	May cause congestion and a collision	Likely	Minor
	D 26	Footpath narrows due to over grown plants and post	May cause congestion and a collision	Possible	Minor
	D 27	Uneven surface (various locations)	Cyclist may hit uneven surface	Possible	Minor
	D 28	Footpath dissapears and narrows	Cyclist may loose traction over dirt, cause congestion or colision	Likely	Moderate
	D 29	Narrow bridge footpath	Pedestrians / cyclists are very close to vehicles	Possible	Moderate
	D 30	Light post in the middle of narrow footpath next to busy road	Cyclist may fall off trying to move around light pole	Possible	Major

			Potential Consequences				
			L6	L5	L4	L3	L2
			Minor injuries or discomfort. No medical treatment or measureable physical effects.	Injuries or illness requiring medical treatment. Temporary impairment.	Injuries or illness requiring hospital admission.	Injury or illness resulting in permanent impairment.	Fatality
			Not Significant	**Minor**	**Moderate**	**Major**	**Severe**
Likelihood	Expected to occur regularly under normal circumstances	**Almost Certain**	**Medium**	**High**	**Very High**	**Very High**	**Very High**
	Expected to occur at some time	**Likely**	**Medium**	**High**	**High**	**Very High**	**Very High**
	May occur at some time	**Possible**	**Low**	**Medium**	**High**	**High**	**Very High**
	Not likely to occur in normal circumstances	**Unlikely**	**Low**	**Low**	**Medium**	**Medium**	**High**
	Could happen, but probably never will	**Rare**	**Low**	**Low**	**Low**	**Low**	**Medium**

SAFETY AUDIT - CANAL ROAD

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A	For Consultation	LP/DK	8/3/17

Sheet Title
Audit - Canal Road

Sheet No.
01-04-01

Rev
A

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Audit - Canal Road

Sheet No.
01-04-03

Rev
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SAFETY AUDIT - CANAL ROAD

Route Quality - Excellent
Route Quality - Good
Route Quality - Average
Route Quality - Bad
Route Quality - Terrible
A # Audit Code

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Client
Roads and Maritime Service

Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
B51 Planning Condition

Key Plan

Scale & Orientation
1: 500 @ A3

All dimensions are in millimetres unless otherwise noted. Do not scale from this drawing.

Revision Log

Rev	Revision Description	By/Checked	Date
A	For Consultation	LP/DK	8/3/17

Sheet Title
Audit - Canal Road

Sheet No. 01-04-05

Rev A

SAFETY AUDIT - CANAL ROAD

D 1

D 2

D 3

D 4

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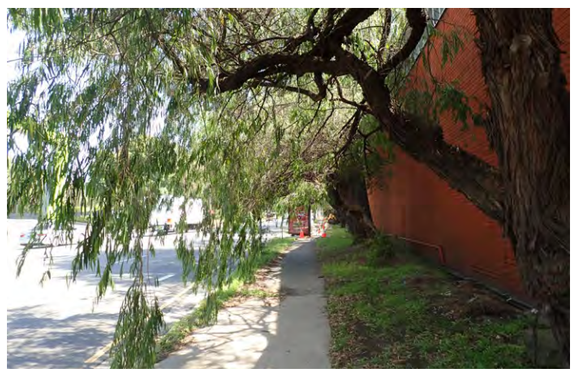

D 10

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SAFETY AUDIT - CANAL ROAD

D 13

D 14

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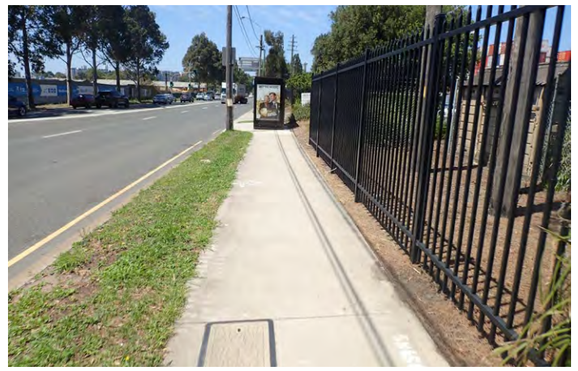
D 16

D 17

D 18



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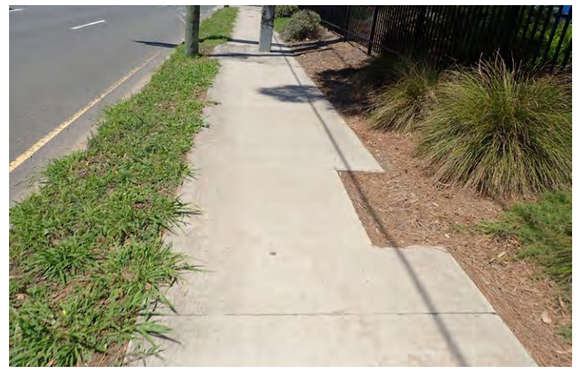

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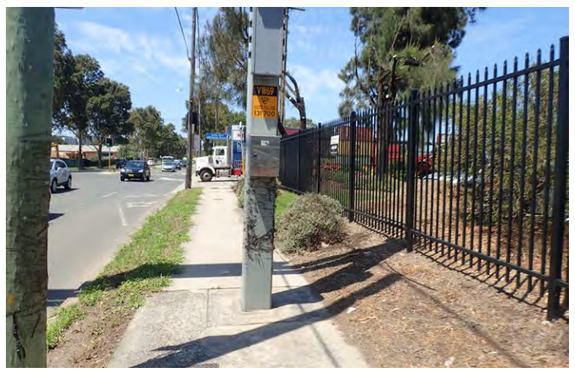

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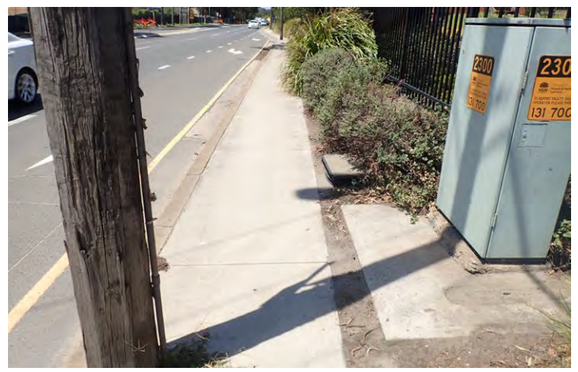
D 22



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D 24

SAFETY AUDIT - CANAL ROAD

D 25

D 26

D 27

D 28

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D 30

D 31

SAFETY AUDIT - SYDNEY PARK

Site	Code	Description	Safety issue	Probability	Severity of consequence
Sydney Park					
	E 1	Changes in pavement materials and no barrier infront of dropoff	May cause congestion and a collision	Likely	Minor
	E 2	Bollards are hard to see in low light	Cyclist may hit bollards	Possible	Minor
	E 3	Steep hill	Cyclist may loose control down hill	Unlikely	Minor
	E 4	Uneven surface due to tree roots (various locations)	Cyclist may hit uneven surface	Possible	Minor
	E 5	New path recently constructed	N/A	N/A	N/A

			Potential Consequences				
			L6	L5	L4	L3	L2
			Minor injuries or discomfort. No medical treatment or measureable physical effects.	Injuries or illness requiring medical treatment. Temporary impairment.	Injuries or illness requiring hospital admission.	Injury or illness resulting in permanent impairment.	Fatality
			Not Significant	**Minor**	**Moderate**	**Major**	**Severe**
Likelihood	Expected to occur regularly under normal circumstances	**Almost Certain**	**Medium**	**High**	**Very High**	**Very High**	**Very High**
	Expected to occur at some time	**Likely**	**Medium**	**High**	**High**	**Very High**	**Very High**
	May occur at some time	**Possible**	**Low**	**Medium**	**High**	**High**	**Very High**
	Not likely to occur in normal circumstances	**Unlikely**	**Low**	**Low**	**Medium**	**Medium**	**High**
	Could happen, but probably never will	**Rare**	**Low**	**Low**	**Low**	**Low**	**Medium**

SAFETY AUDIT - SYDNEY PARK

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0 2 4 6 8 10 M

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Revision Log

Rev	Revision Description	By/Checked	Date
A	For Consultation	LP/DK	8/3/17

Sheet Title
Audit - Sydney Park

Sheet No. 01-05-01

Rev A

SAFETY AUDIT - SYDNEY PARK

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Revision Log

Rev	Revision Description	By/Checked	Date
A	For Consultation	LP/DK	8/3/17

Sheet Title
Audit - Sydney Park

Sheet No. 01-05-03

Rev A

SAFETY AUDIT - SYDNEY PARK

E 1

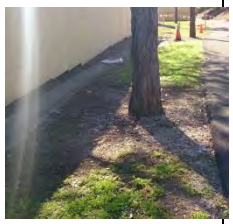
E 2

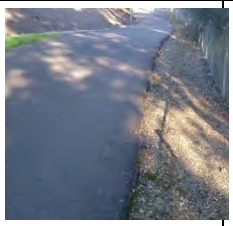
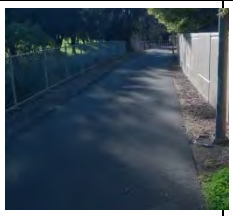
E 3

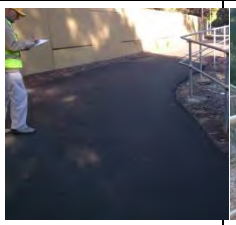
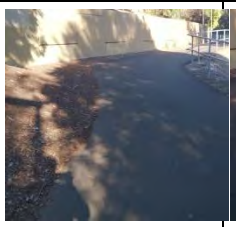
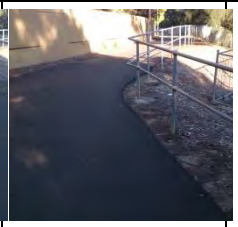
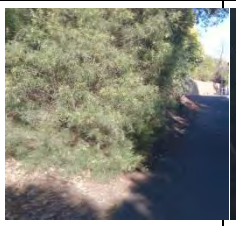
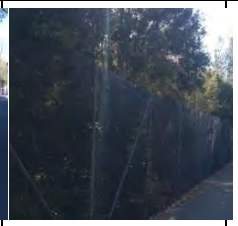
E 4

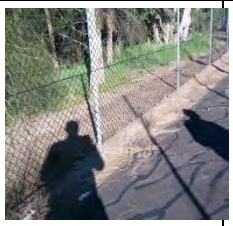
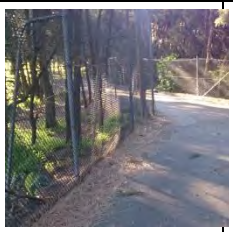
APPENDIX 11

Safety Audit - M5 East Linear Shared Path

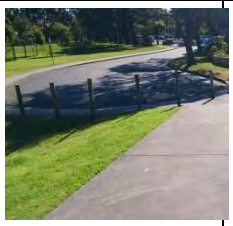
Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	lan #	ontrol Line	hainage								
1	302	M2P2	210			Edge drop off	Errant cyclist may lose control	Possible	Casualty Injury	Very Low	Remove edge drop off by placing soil and grass around tree
2	302	M2P2	250			Sharp turning movement	May cause cyclist to cross centreline or become unstable at low speed	Possible	Casualty Injury	Low	Provide AC fillet
3	302	M2P2	280			Reflectors on bollards in poor condition	Cyclist may not see bollards at night	Possible	Casualty Injury	Very Low	Replace reflectors on bollards
4	302	M2P2	280-320			Edge drop off	Errant cyclist may lose control	Possible	Casualty Injury	Very Low	Fill in depression with AC to RTA sub-soil concrete cover. Grind sub-soil drain concrete cover to remove lip

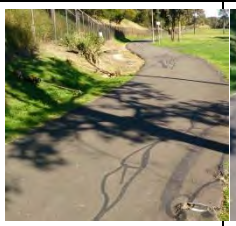
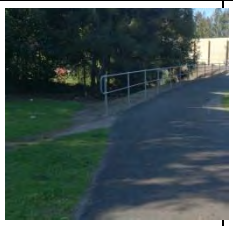
Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	Plan #	Control Line	Chainage								
5	303	M2P2	340-380			Edge drop off	Errant cyclist may lose control	Possible	Acute Injury	Low	Provide AC to steep batter to assist in recovery and install edge line at crest; path width 2.8m
6	303	M2P2	410			Street lighting column is 400 mm offset	Errant cyclist may strike column	Rare	Acute Injury	Very Low	Street lighting column is 400 mm offset; path 2.9m. Install reflective tape to column
7	303	M2P2	430			Roots have made pavement uneven	Cyclist may hit and become unstable	Rare	Acute Injury	Negligible	Grind root protuberances or otherwise remove unevenness
8	303	M2P2	440			Fence end post is within 500mm of path	Cyclist may hit post	Possible	Casualty Injury	Very Low	Add reflective tape to rail; 300mm o/s Taper new AC to rail; path 2.9m

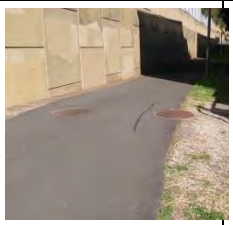
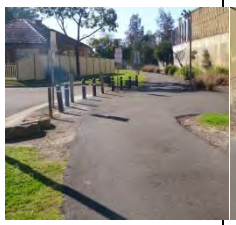
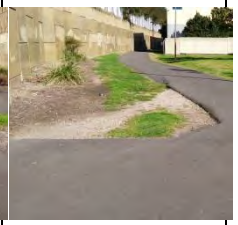
Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	Plan #	Control Line	Chainage								
9	303	M2P2	440			Fence end post is within 500mm of path	Cyclist may hit post	Possible	Casualty Injury	Very Low	Install additional fencing, splayed from tree to existing fence.
10	303	M2P2	440-480			Safety fence protrudes within 500mm of path on tight curve	Cyclist may hit fence	Possible	Casualty Injury	Very Low	Install edge line at bend near chicane adjacent safety fence
11	303	M2P2	460			Inadequate lighting at protruding safety fence	Cyclist may strike fence at night	Possible	Casualty Injury	Very Low	Provide additional lighting at fence Add reflective tape to rail
12	303	M2P2	500			Vegetation protrudes across path	Cyclist may hit vegetation or swerve to avoid it	Possible	Casualty Injury	Very Low	Prune vegetation to provide 500mm offset; path 3.3m to fence

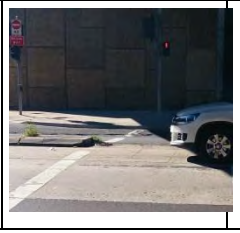
Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	lan #	ontrol Line	hainage								
13	303	M2P2	540			Drop off beside path	Errant cyclist may traverse and become unstable	Possible	Casualty Injury	Very Low	Install edge line; and Remove Drop-off by constructing additional path width to fence.
14	303	M2P2	580-600			Path surface is uneven	Cyclist may hit rough surface and become unstable	Possible	Casualty Injury	Very Low	Repair pavement where root damaged
15	304	M2P2	670-760			Multiple curves are very tight with low stopping sight distance	Cyclist may cross centreline and strike oncoming user	Likely	Acute Injury	Low	Install centreline through windy section
16	304	M2P2	670-760			Path surface is uneven	Cyclist may hit rough surface and become unstable	Possible	Casualty Injury	Very Low	Replace AC or overlay; path 2.7m; widen to 3.0m or fence to fence 4.1m

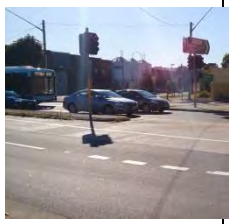
Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	Plan #	Control Line	Chainage								
17	304	M2P2	835			Edge drop off	Cyclist may depart path and become unstable	Possible	Casualty Injury	Very Low	Place topsoil and grass to remove drop off
18	304	M2P8	30			Path surface is uneven	Cyclist may hit rough surface and become unstable	Possible	Casualty Injury	Very Low	Repair pavement at junction to underpass M9U1, northern side; path 3.2m
19	304	M2P8	50			Edge drop off	Cyclist may depart path and become unstable	Possible	Casualty Injury	Very Low	Repair drop off with soil and seed or turf
20	304	M2P8	60			Path surface is uneven	Cyclist may hit rough surface and become unstable	Rare	Casualty Injury	Negligible	Repair depressed path

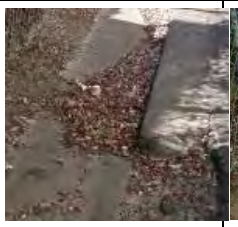
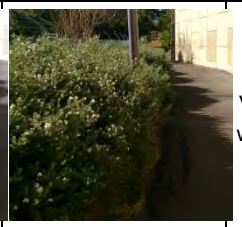
Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	Ian #	ontrol Line	hainage								
21	312					No reflectors on timber bollards	Cyclist may not see bollards at night	Possible	Casualty Injury	Negligible	Install reflective material on timber posts at Rosebank Avenue cul-de-sac
22	305	M2P8	320*			Path surface is uneven	Cyclist may hit rough surface and become unstable	Possible	Casualty Injury	Negligible	Grind off AC lip at concrete path joint (Rosebank Avenue)
23	305	M2P8	420*			Edge drop off / concrete sewer pit / grassed catch drain level conflict	Cyclist may depart path and become unstable	Possible	Casualty Injury	Very Low	Reduce200-300mm path edge drop off by installing short section of SW pipe; Clear and maintain SW inlet function; investigation and design required Two Fixed reflective bollards and an edge line
24	305	M2P8	430*			Pole protrudes within 500mm of path	Cyclist may hit pole	Rare	Casualty Injury	Negligible	Light pole west of Armitree Street is 200mm o/s; install reflective tape

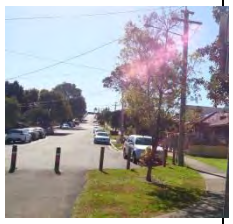
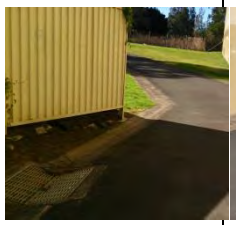
Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	Plan #	Control Line	Chainage								
25	305	M2P8	450-550*			Path surface is uneven	Cyclist may hit rough surface and become unstable	Rare	Casualty Injury	Negligible	Repair path pavement
26	305	M2P8	550*			Pole protrudes within 500mm of path	Cyclist may hit pole	Rare	Casualty Injury	Negligible	Light pole 30m west of Glamus Street is 300mm o/s; install reflective tape
27	305	M2P8	420			Path surface is uneven	Cyclist may hit rough surface and become unstable	Rare	Casualty Injury	Negligible	Repair small area of pavement
28	306	M2P8	440			End fence post protrudes within 500mm of path	Cyclist may hit post	Rare	Casualty Injury	Negligible	Install reflective marker on post (450mm o/s)

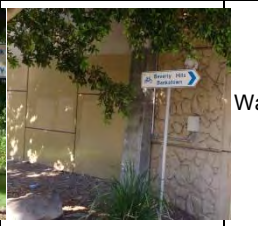
Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	Plan #	Control Line	Chainage								
29	306	M2P4	290			Pole protrudes within 500mm of path	Cyclist may hit pole	Rare	Casualty Injury	Negligible	Light pole 150mm o/s; install reflective tape to light poles
30	307	M2P4	520			Manhole in path is depressed	Cyclist may hit depression and become unstable	Possible	First aid injury	Negligible	Consider raising manhole; Paint around manhole lid in bright yellow. If depressed more than 25mm then lift
31	307	M2P4	530			Edge drop off	Cyclist may depart path and become unstable	Possible	Casualty Injury	Very Low	Repair edge drop off at grated SW inlet pit with soil and seed or turf
32	307	M2P4	570			Sharp turning movement	May cause cyclist to cross centreline or become unstable at low speed	Likely	Property damage	Negligible	Construct pavement to ease corner and remove drop-off on west side

Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	Plan #	Control Line	Chainage								
33	307	M2P4	580			Sharp turning movement	May cause cyclist to cross centreline or become unstable at low speed	Likely	Property damage	Negligible	Construct smaller pavement fillet to ease corner on west side
34	308	M2P4	600			Edge drop off	Cyclist may depart path and become unstable	Possible	Casualty Injury	Very Low	Repair path section and remove edge drop off by additional AC
35	308	M2P4	740			Vegetation protrudes within 500mm of path	Cyclist may hit vegetation or cross centreline	Possible	Casualty Injury	Very Low	Trim vegetation to provide 500mm o/s on RHS to Kingsgrove Road
36	308	M2P4	780			No bicycle lanterns	Cyclist must dismount	Likely	First aid Injury	Very Low	Consider installing bicycle lanterns C&P Access Strategy Part 2 - Implementation

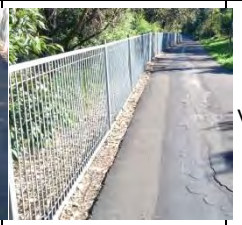
Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	Plan #	Control Line	Chainage								
37	308	M2P4	780			Sharp turning movements	May cause cyclist to cross centreline or become unstable at low speed	Likely	Property damage	Negligible	Construct corner fillet north west side of Kingsgrove intersection and extend concrete on south west side as well
38	308	M2P5	00			No direct crossing.	Cyclist may cross at unsafe location due to having to use four crossings and become frustrated with wait times	Likely	Acute injury	Low	Investigate direct crossing of Kingsgrove Road at Traffic signals across northern side C&P Access Strategy Part 2 - Implementation
39	308	M2P5	80			Path surface is rough	Cyclist may suffer wheel damage and fall.	Likely	Acute injury	Low	Repair rectangular subsidence

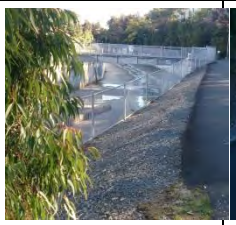
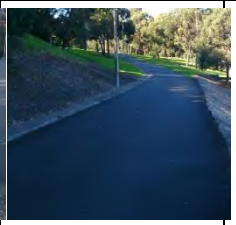
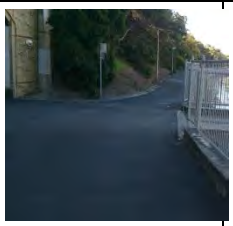
Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	Plan #	Control Line	Chainage								
40	308	M2P5	90-120			20-70mm drop off. Light pole in 500mm clearance	Cyclist may hit and become unstable	Rare	Casualty	Negligible	Line mark or infill with AC to concrete channel with line marking to avoid light pole reflective tape on light pole
41	309	M2P5	120			Uneven side surface	Cyclist may hit and become unstable	Rare	Casualty	Negligible	Infill at kerb leading to SW inlet; Provide edge line marking; 3.0m path from face of kerb to
42	309	M2P5	130-170			Vegetation protrudes within 500mm of path	Cyclist may cross centreline	Possible	Casualty Injury	Very Low	Trim vegetation to 500mm o/s
43	309	M2P5	190			Sharp turning movements	May cause cyclist to cross centreline or become unstable at low speed	Likely	Property damage	Negligible	Construct fillet on left turn into underpass and adjacent left turn onto eastbound path

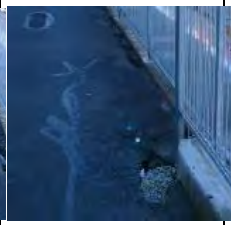
Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	Plan #	Control Line	Chainage								
44	309	M2P5	190			Existing way finding is out of alignment	Cyclist may miss directions	Likely	Property damage	Negligible	Turn sign blade 90 degrees
45	309	M2P5	205			Uneven side surface	Cyclist may hit and become unstable	Rare	Casualty	Negligible	Grind at concrete channel to remove lip; Path 3.2m
46	309	M2P5	240			Uneven path surface	Cyclist may hit and become unstable	Rare	Casualty	Negligible	Repair badly cracked concrete surround to square sewer manhole in path Paint concrete surround in yellow. This is a Sydney Water asset
47	309	M2P5	260			Insufficient sight distance	Cyclist may not see oncoming users	Likely	Casualty injury	Low	Provide edge line and centre line and mirror or reconstruct SW channel; Substandard on visibility due to fence with no offset to path at curve in path

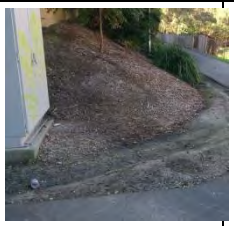
Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	Plan #	Control Line	Chainage								
48	309	M2P5	340			Uneven path surface	Cyclist may hit and become unstable	Rare	Casualty	Negligible	Grind tree root protuberance or repair pavement at large Moreton Bay fig tree; Path 3.2m
49	309	M2P5	366			Drop off	Cyclist may hit and become unstable	Rare	Casualty	Negligible	Rectify edge drop off with additional AC; Path 2.9m at fence
50	309	M2P5	380-410			Drop off	Cyclist may hit and become unstable	Rare	Casualty	Negligible	Top up soil and regrass to SW pond fence
51	310	MZP5	510			Way finding to Bexley Road missing	Cyclist may miss directions	Possible	Property damage	Negligible	Review signage at Lundy Avenue underpass M9U4 (west approach)

Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	Plan #	Control Line	Chainage								
52	311	MZP4 MTP1	540 297			Direct path missing	Cyclist may take short cut on uneven surface	Possible	Property damage	Negligible	Provide new path for a direct connection for right turn to Bexley Road overpass Replace turf and place edge lines on path to guide cyclists around corner
53	310	MZP4	00			Insufficient line marking at cross intersection	Cyclist may be confused	Possible	First aid injury	Negligible	Install hold lines to supplement Give Way signage at Maintenance access intersection
54	310	MZP4	60			End post protrudes into 500mm clear zone	Cyclist may strike post	Rare	Casualty injury	Negligible	Delineate fence end post with reflective tape; path 3.0m
55	310	MZP4	110			End post protrudes into 500mm clear zone	Cyclist may strike post	Possible	Casualty injury	Low	Delineate fence end post with reflective tape; install edge line from opposite light post to past fence end post path width varies 3.4m/ 2.95m /3.0m/ 3.0m

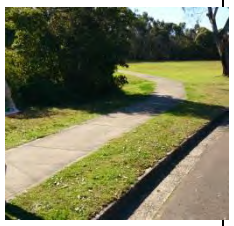
Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	Plan #	Control Line	Chainage								
56	311	MZP4	320			Loose fence post	Post may fall towards path	Rare	First aid injury	Negligible	Refix loose fence post
57	311	MZP4	420-440			Very smooth bitumen	Cyclist may skid in wet	Possible	Casualty injury	Very Low	Increase friction by heating and applying a sand or very small aggregate seal overlay
58	311	MZP4	420-560			Vegetation protrudes within 500mm of path	Cyclist may cross centreline	Possible	Casualty Injury	Very Low	Prune lower vegetation to Bexley Road at 500mm o/s
59	311	MZP4	525			Pit sits proud of path	Cyclist may hit and become unstable	Rare	Casualty	Negligible	Repair by AC infill

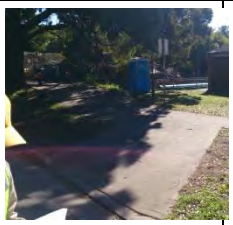
Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	Plan #	Control Line	Chainage								
60	310	MZP3	500			No warning to stop cyclist using dead end service access road to south	Cyclist may proceed on dead end path	Rare	Property damage	Negligible	Install signage on Maintenance track start “Maintenance Traffic Only”
61	309	MZP3	395-415			Steep unprotected batter	Cyclist may ride down batter and become unstable	Likely	Acute injury	low	Extend fence back to grass with tapered offset at grass end Minimum 1.8m high palisade fence at top of batter for entire length. Asphalt to fence posts and an edge line
62	309	MZP3	200 & 202			Bridge hand rail end posts not delineated	Cyclist may strike end posts	Possible	Casualty injury	Very low	Install reflective tape on Kooreela Bridge entry handrails;
63	308	MZP3	00			Sharp turning movements	May cause cyclist to cross centreline or become unstable at low speed	Likely	Property damage	Negligible	Construct corner fillet at Kingsgrove

Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	Plan #	Control Line	Chainage								
64	308	M3P3				No side clearances on either side	Cyclist may strike obstacles	Rare	Casualty injury	Negligible	3.0m between fence and retaining wall; substandard clearance but not perceived as issue to expected volumes and speeds Take this as "Do Nothing"
65	307	M3P3	955-965			Drop off	Cyclist may leave path	Possible	Casualty injury	Very Low	Install edge line at access to pedestrian bridge from taper in retaining wall on both sides; fill in blister chicane with ~~concrete~~ asphalt
66	307	M3P3	780			Path has subsided	Cyclist may strike subsidence	Possible	Casualty injury	Very Low	Repair subsidence; Install reflective material on fence end post
67	307	M3P3	760			Obstruction within 500mm	Cyclist may strike obstacle	Possible	Casualty injury	Very low	Delineate start of retaining wall at grated SW inlet sump

Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	Plan #	Control Line	Chainage								
68	305	M3P3	280			Steep batter	Cyclist may leave path and become unstable	Possible	Casualty injury	Very low	Top soil and re-grass batter fillet. Consider installing AC to maintenance track at cross over to reduce future erosion Minimum 1.8m high palisade fence at top of batter for entire length. Asphalt to fence posts and an edge line
69	304	M3P3	20			Sharp turning movements	May cause cyclist to leave path & become unstable at low speed	Likely	Property damage	Negligible	Construct AC infill fillet at SE exit from underpass at Tallawalla Street M9U1
70	304	M3P3	20			Sharp turning movements	May cause cyclist to leave path & become unstable at low speed	Likely	Property damage	Negligible	Construct AC infill fillet at NE exit from bridge
71	306	M3P3	620			Reduced path width and side erosion along desire line	May cause cyclist to leave path & become unstable at high speed or fall	Possible	Casualty	Very Low	Install AC fillet across SW pit

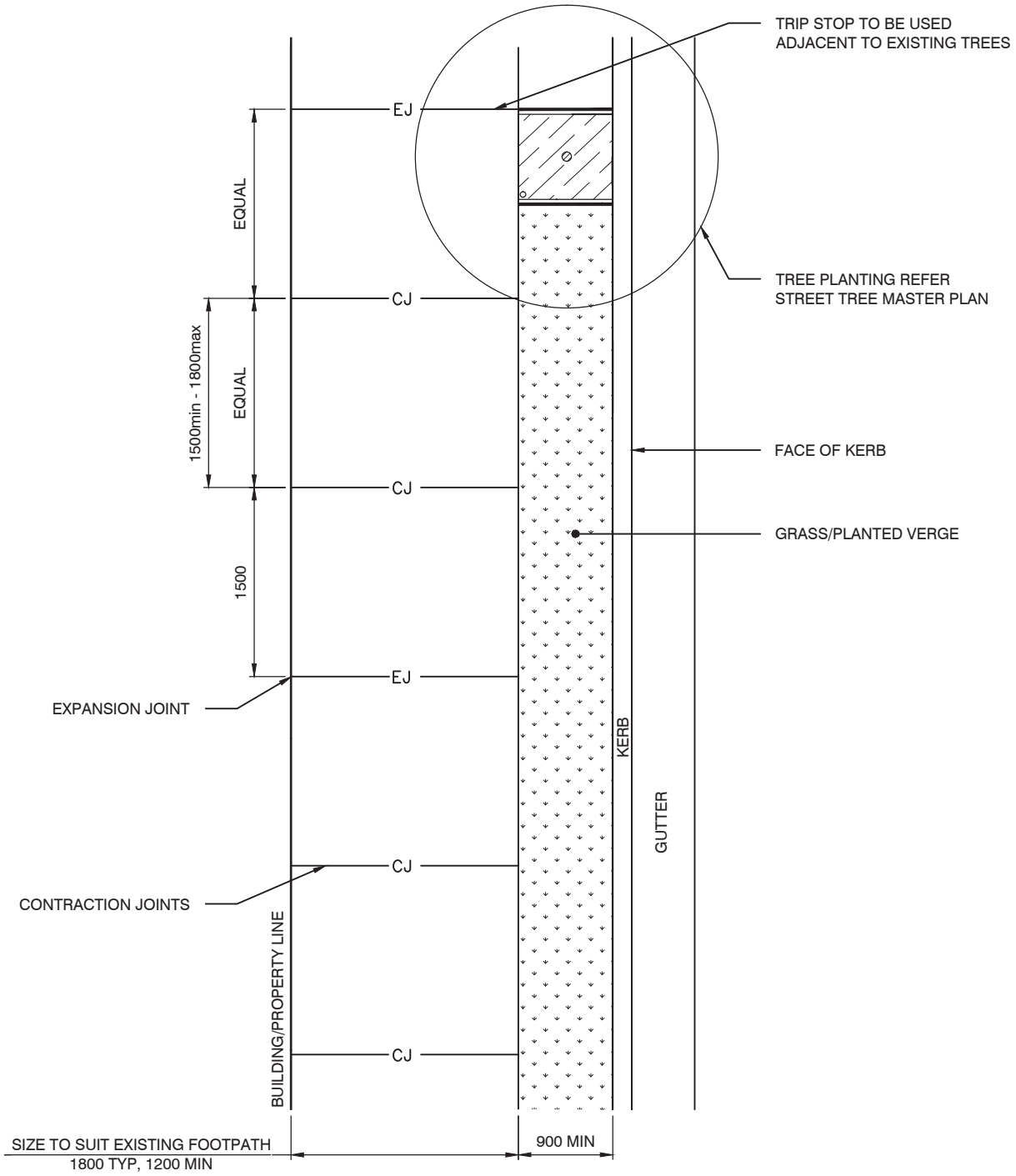
Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	Plan #	Control Line	Chainage								
72	306	M3P3	530-560			Uneven path surface	Cyclist may hit and become unstable	Rare	Casualty	Negligible	Consider resurface of path to improve quality in this section
73	304	M3PA	110			Bollards in path not adequately delineated	Cyclist may strike bollard in low light conditions or at night	Possible	Acute injury	Low	Replace reflective tape on bollards;
74	304	M3PA	110			Share path not secured	Wide access to path may enable unauthorised vehicles access which could collide with shared path users	Possible	Acute injury	Low	Consider shift rock back to close access to unauthorised vehicles

Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	Plan #	Control Line	Chainage								
75	304 / 303	M3P2	600-840			Alternative path is narrow	Cyclist not obeying signage may strike oncoming users	Possible	Casualty injury	Very Low	Widen 1.5m concrete path to 3.5m path by constructing additional path width only on one side to minimise joints. Southern side east of culvert; northern side west of culvert. Adjust fencing at culvert to suit Discuss with Hurstville City Council for Part 2 Strategy
76	303	M3P2	600			No access to on road cycling	Cyclist may cross high kerb and suffer bike damage or fall	Possible	Casualty injury	Very Low	Construct pram / vehicle crossing at kerb to allow access to on road cycling; install bollard(s) to prevent vehicle access Discuss with Hurstville City Council for Part 2 Strategy
77	303	M3P2	470-600 420-470			On road cycle path not delineated	Users may not be cognisant of cycle traffic on road	Possible	Acute injury	Low	Install Bicycle logo on road pavement on Tallawalla Street and Kooemba Road; Install wayfinding signage Discuss with Hurstville City Council for Part 2 Strategy

Ref No.	Location			Photo 1	Photo 2	Description of deficiency	Reason deficiency considered a safety issue	Probability	Severity of Consequence	Risk Level (1=negligible 7=extreme)	Action on Deficiency
	Plan #	Control Line	Chainage								
78	303	M3P2	400			Trip hazard	Cyclist may suffer bike damage or fall	Likely	Casualty injury	Low	Grind concrete to ameliorate lip at pedestrian bridge Discuss with Hurstville City Council for Part 2 Strategy
79	303	M3P2	400			Bike sign in front of Scout Hall wrongly aligned	Cyclist may proceed on footpath	Likely	Casualty injury	Low	Rotate “No Bike access” sign in Kooemba Road to face oncoming cycle traffic

APPENDIX 12

Council specifications on concrete pedestrian paving



NOTE:

1. ALL EXPOSED CONCRETE SURFACES MUST BE FINISHED WITH A MEDIUM BROOM FINISH GENERALLY PERPENDICULAR TO THE DIRECTION OF TRAVEL.
2. ALL CONCRETE SLABS MUST HAVE A JOINT ALONG THE BUILDING LINE, KERB LINE AND ANY PENETRATIONS (EXCEPT WHEN USING BRICK KERBS).
3. ANY FOOTPATH THAT MAY BE SUBJECT TO VEHICULAR LOADS (SUCH AS GARBAGE TRUCKS IN NARROW LANES OR AT INTERSECTIONS WITH A TIGHT TURNING CIRCLE WHERE VEHICLES MAY MOUNT THE FOOTWAY) MUST HAVE AT LEAST 150mm THICK REINFORCED CONCRETE BASE (SL72).
4. CONCRETE FOOTWAYS TO BE A MINIMUM OF 1.2m WIDE, OR AS DIRECTED BY COUNCIL.
5. TYPICALLY ALLOW FOR EXPANSION JOINTS AT 4.5m - 5.4m SPACING AND CONTRACTION JOINTS AT 1.5m - 1.8m SPACING IN PLAIN CONCRETE FOOTPATHS.

PLAN 1:50

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

CITY OF SYDNEY

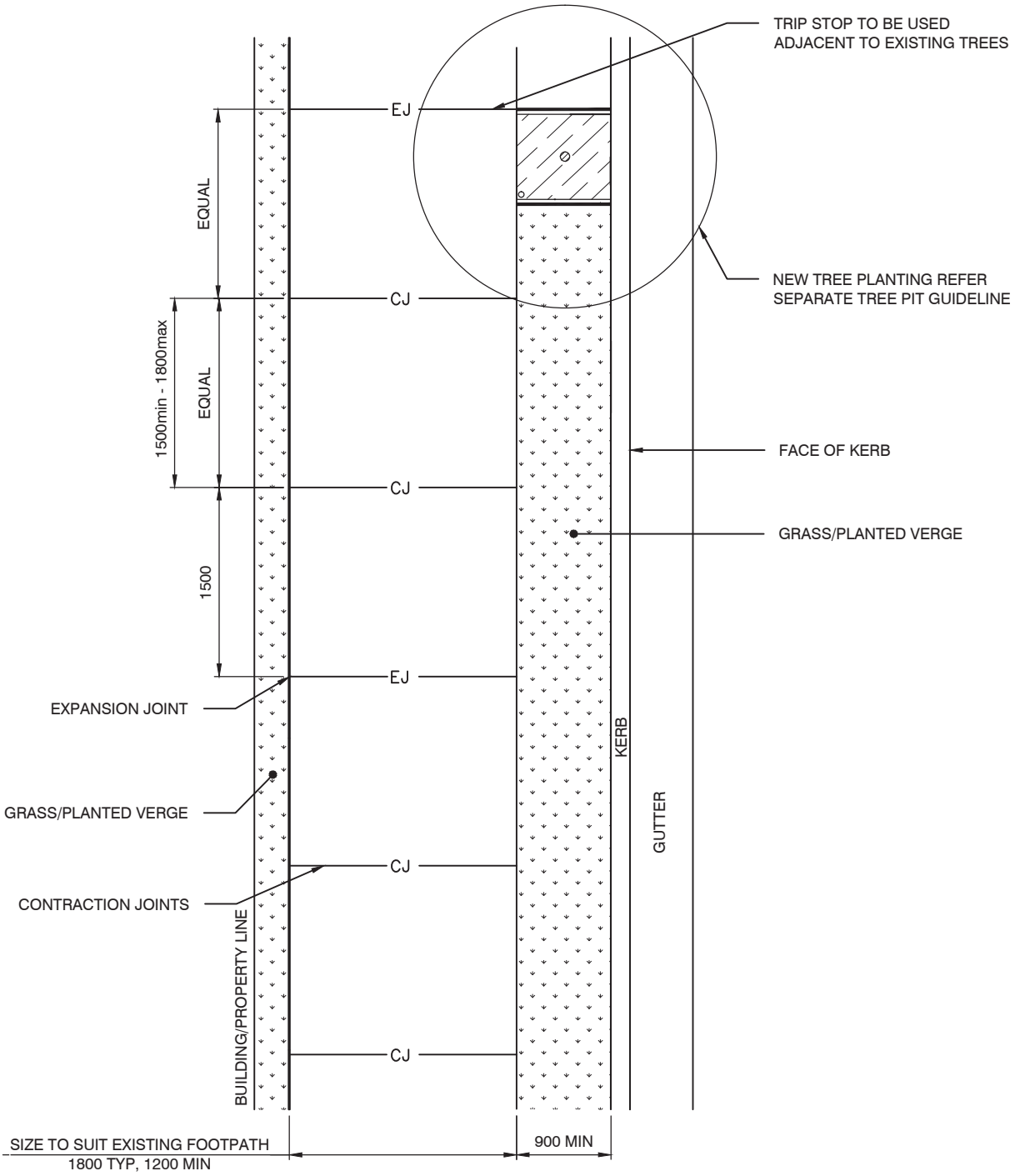
CONCRETE PAVING

INSITU CONCRETE PAVEMENT PLAN - NO PLANTING ON BOUNDARY

FOOTWAYS

Rev	B
Date	22.03.13
Approved	P S

Dwg No. 2.6.1



NOTE:

1. DETAIL ONLY TO BE USED IF MATCHING EXISTING, CITY REPRESENTATIVE TO APPROVE.
2. ALL EXPOSED CONCRETE SURFACES MUST BE FINISHED WITH A MEDIUM BROOM FINISH GENERALLY PERPENDICULAR TO THE DIRECTION OF TRAVEL.
3. ALL CONCRETE SLABS MUST HAVE A JOINT ALONG THE BUILDING LINE, KERB LINE AND ANY PENETRATIONS (EXCEPT WHEN USING BRICK KERBS).
4. ANY FOOTPATH THAT MAY BE SUBJECT TO VEHICULAR LOADS (SUCH AS GARBAGE TRUCKS IN NARROW LANES OR AT INTERSECTIONS WITH A TIGHT TURNING CIRCLE WHERE VEHICLES MAY MOUNT THE FOOTWAY) MUST HAVE AT LEAST 150mm THICK REINFORCED CONCRETE BASE (SL72).
5. CONCRETE FOOTWAYS TO BE A MINIMUM OF 1.2m WIDE, OR AS DIRECTED BY COUNCIL.
6. TYPICALLY ALLOW FOR EXPANSION JOINTS AT 4.5m - 5.4m SPACING AND CONTRACTION JOINTS AT 1.5m - 1.8m SPACING IN PLAIN CONCRETE FOOTPATHS.

PLAN 1:50

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

CITY OF SYDNEY

CONCRETE PAVING

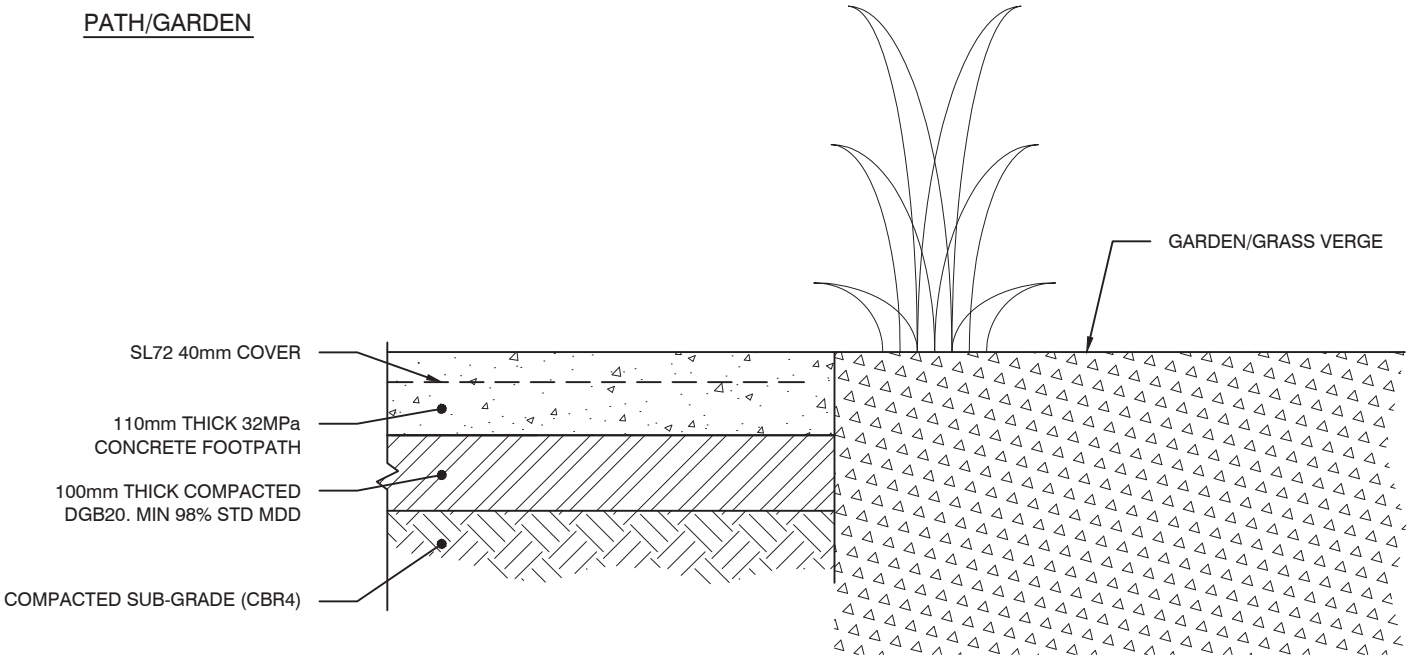
INSITU CONCRETE PAVEMENT PLAN - PLANTING ON BOUNDARY

FOOTWAYS

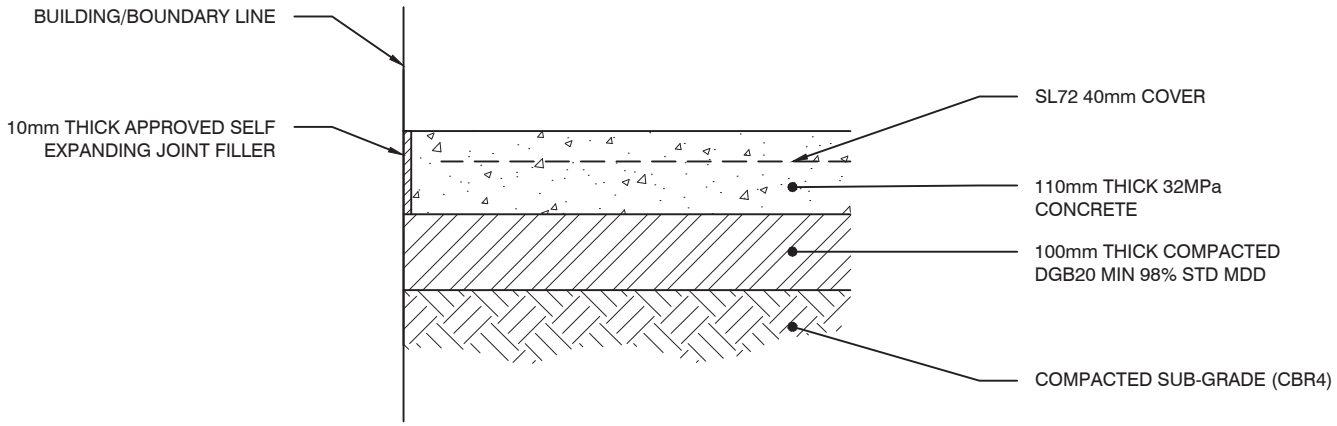
Rev	B
Date	22.03.13
Approved	P S

Dwg No. 2.6.2

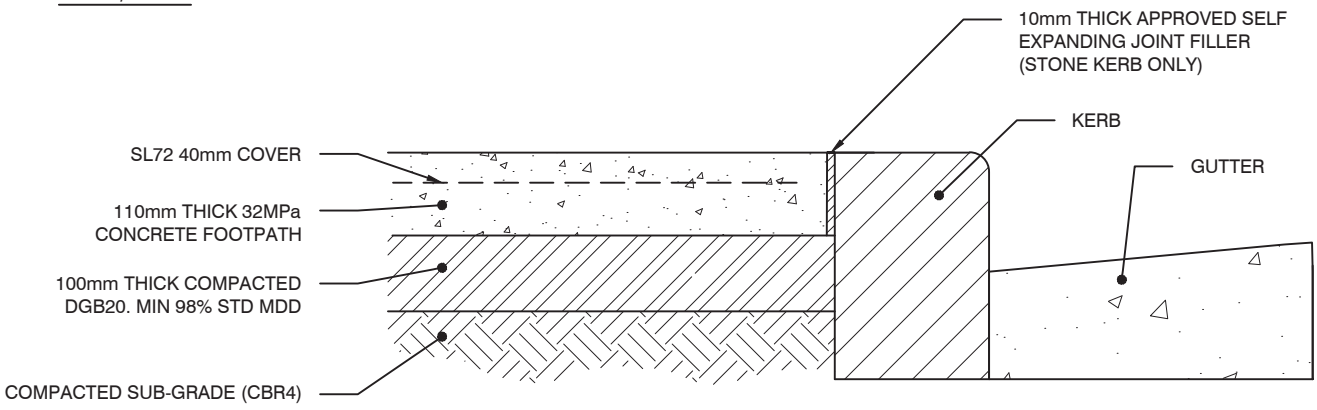
PATH/GARDEN



PATH/BUILDING LINE



PATH/KERB



SECTION 1:10

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

CITY OF SYDNEY

CONCRETE PAVING

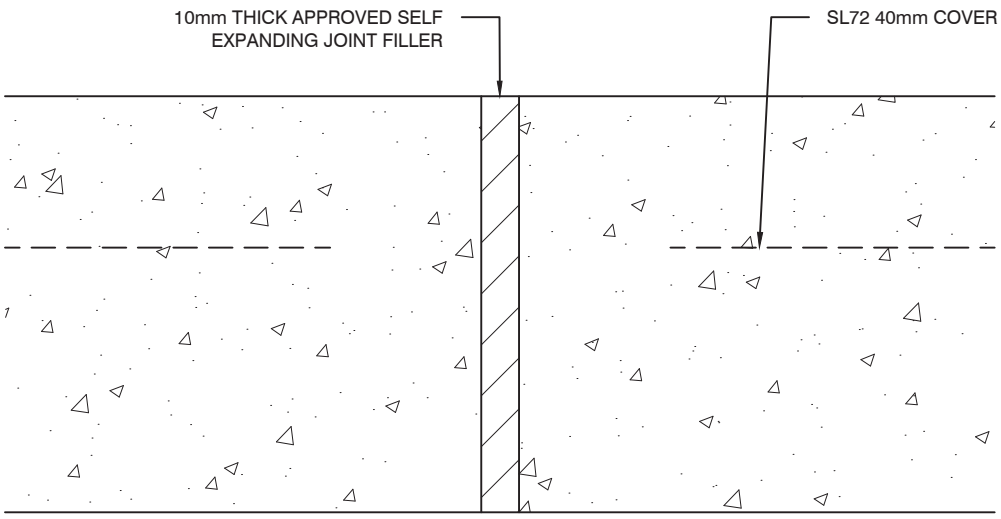
JUNCTIONS

FOOTWAYS

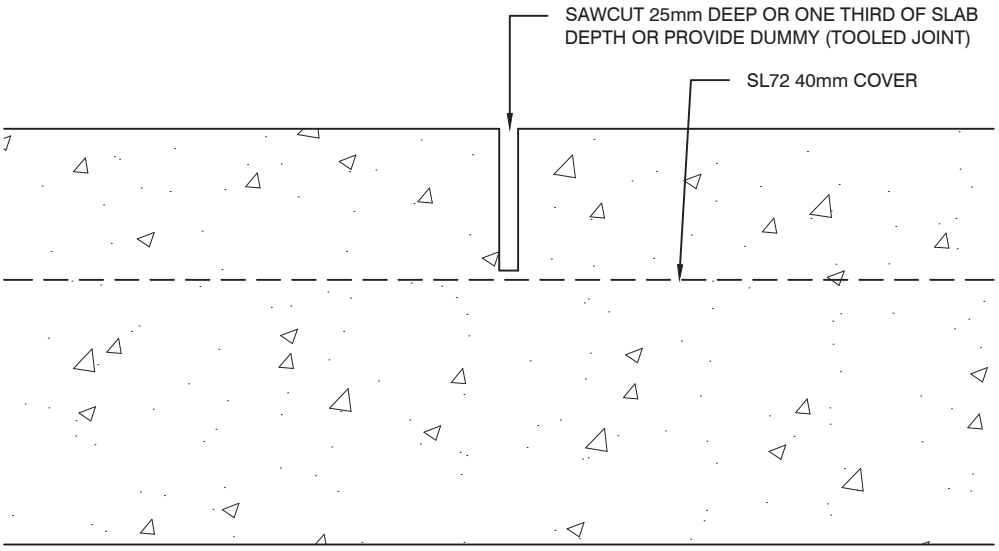
Rev	C
Date	21.11.13
Approved	P S

Dwg No. 2.6.3

EXPANSION JOINT



CONSTRUCTION JOINT



SECTION 1:2

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

CITY OF SYDNEY

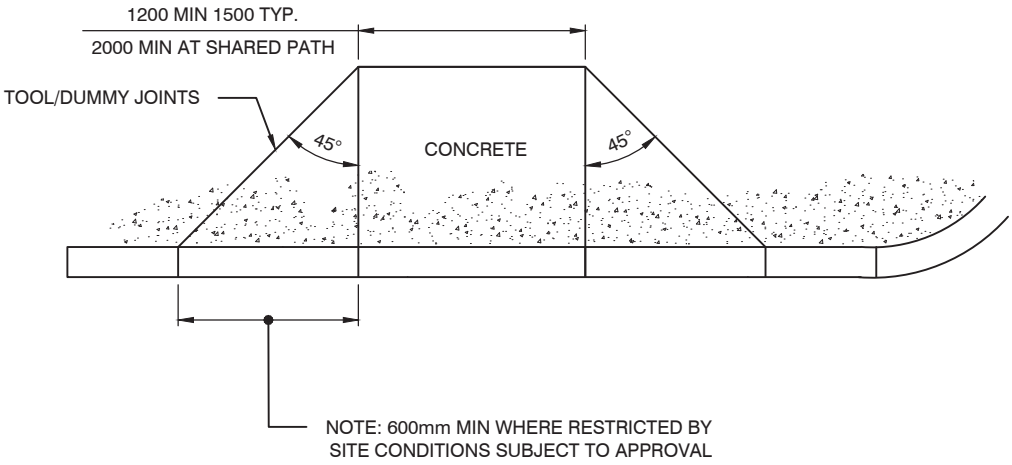
CONCRETE PAVING

JOINTS

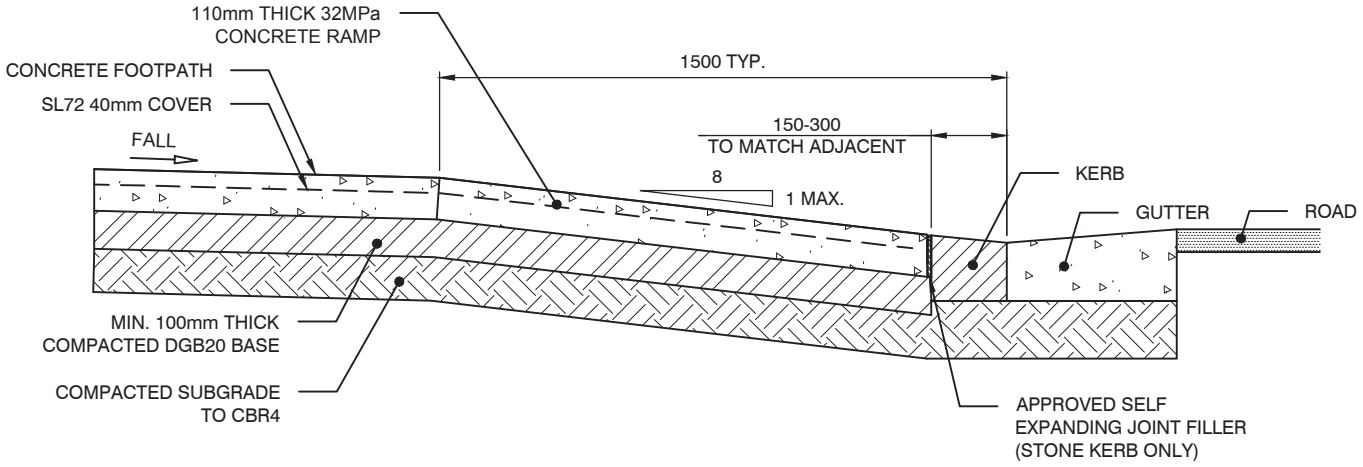
FOOTWAYS

Rev	B
Date	22.03.13
Approved	P S

Dwg No. 2.6.4



PLAN 1:50



SECTION 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

CITY OF SYDNEY

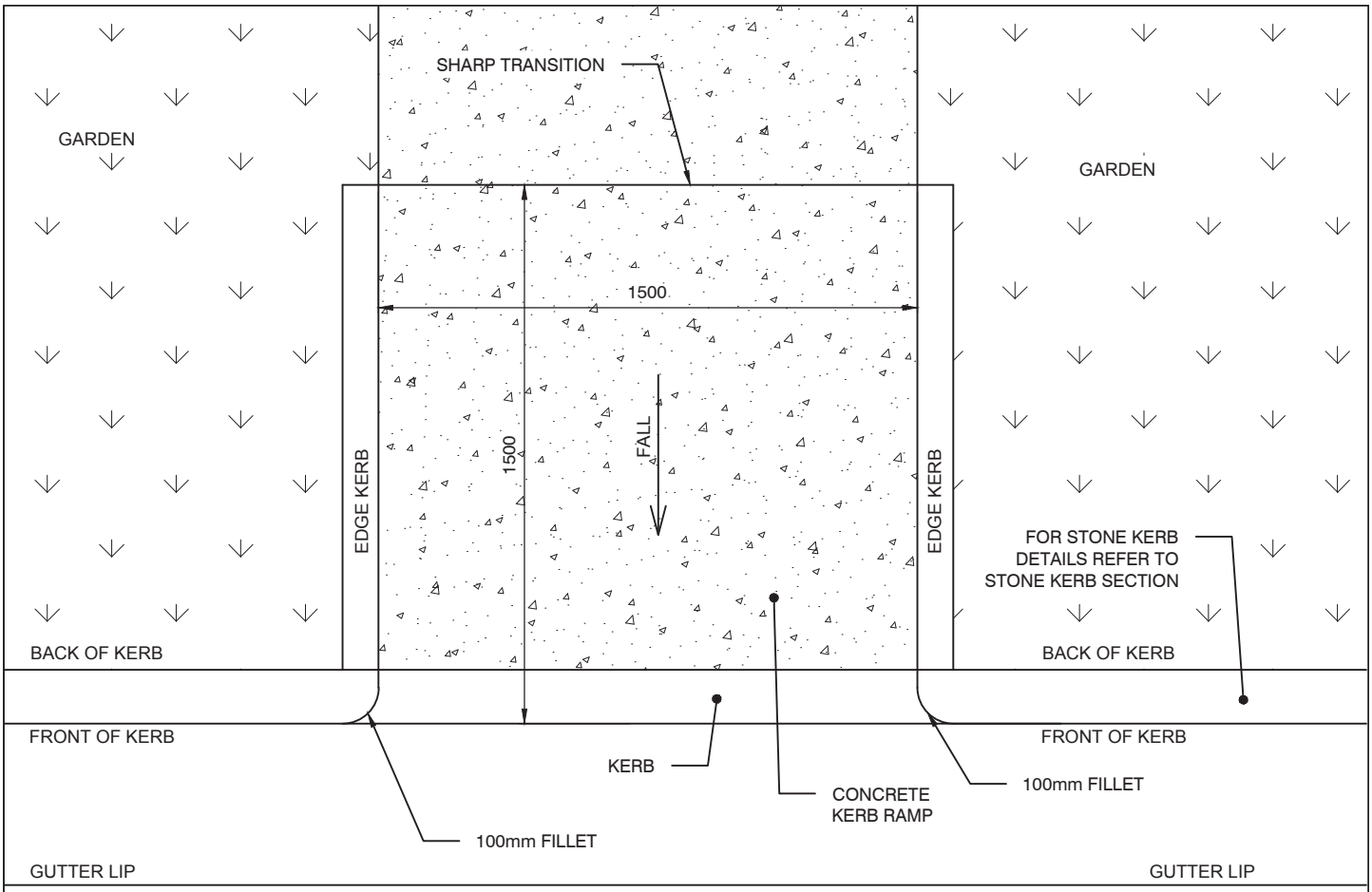
CONCRETE PAVING

PEDESTRIAN RAMP

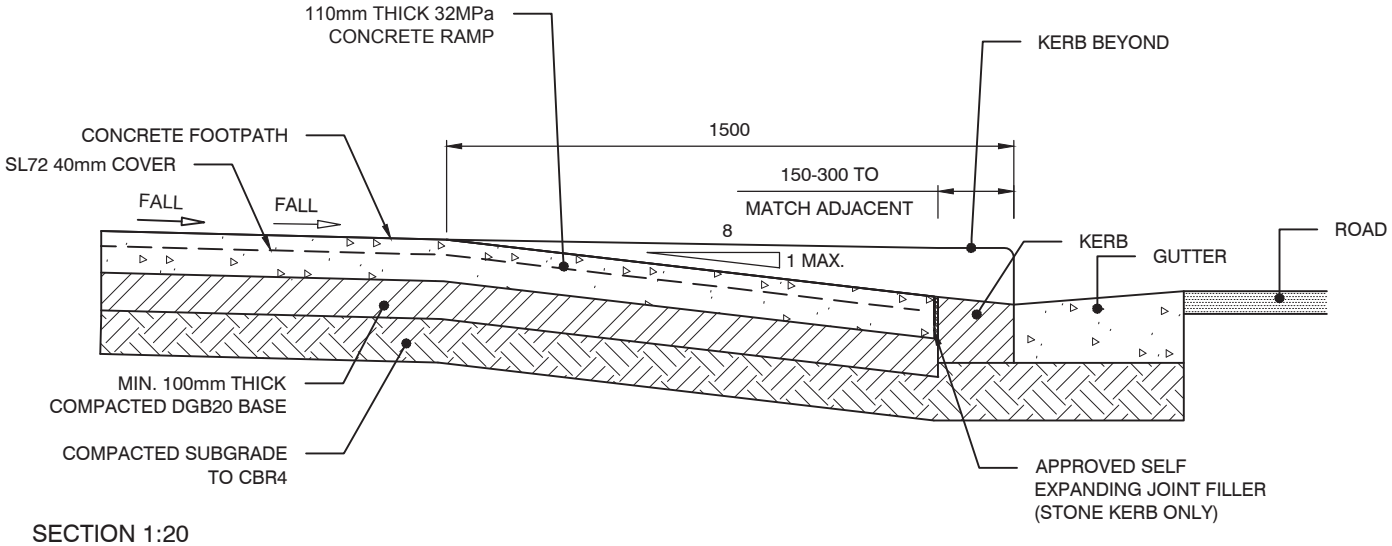
FOOTWAYS

Rev	C
Date	21.11.13
Approved	P S

Dwg No. 2.6.5



PLAN 1:20



SECTION 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

CITY OF SYDNEY

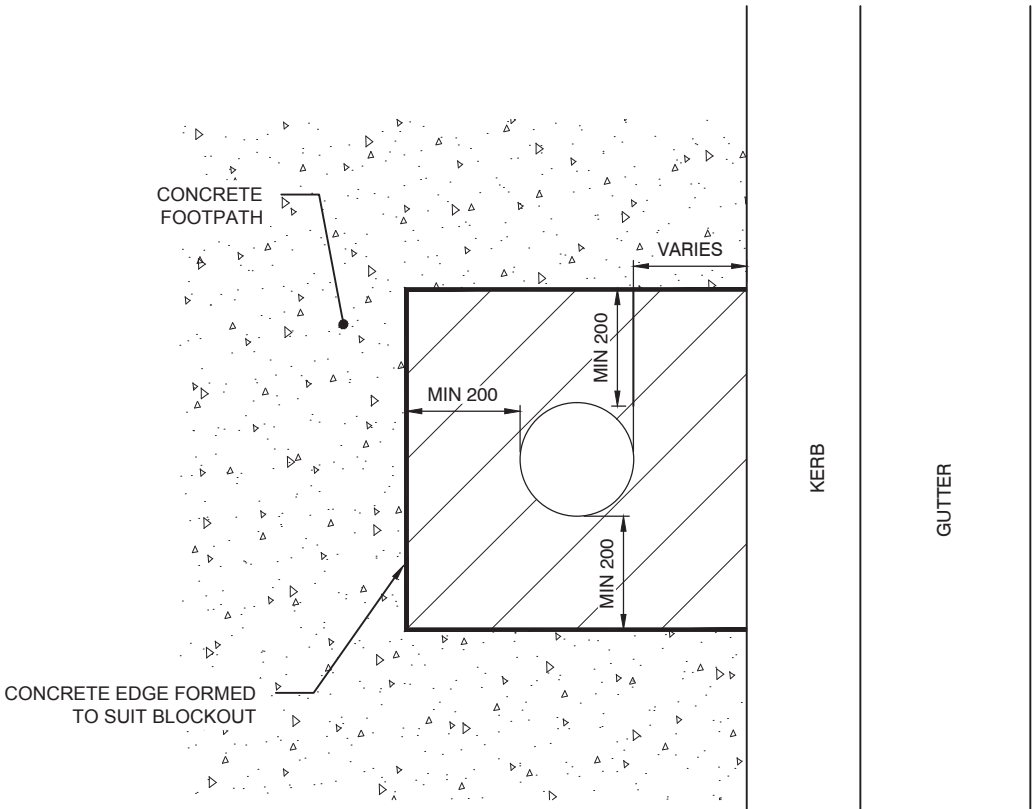
CONCRETE PAVING

PEDESTRIAN RAMP (ADJACENT GARDEN)

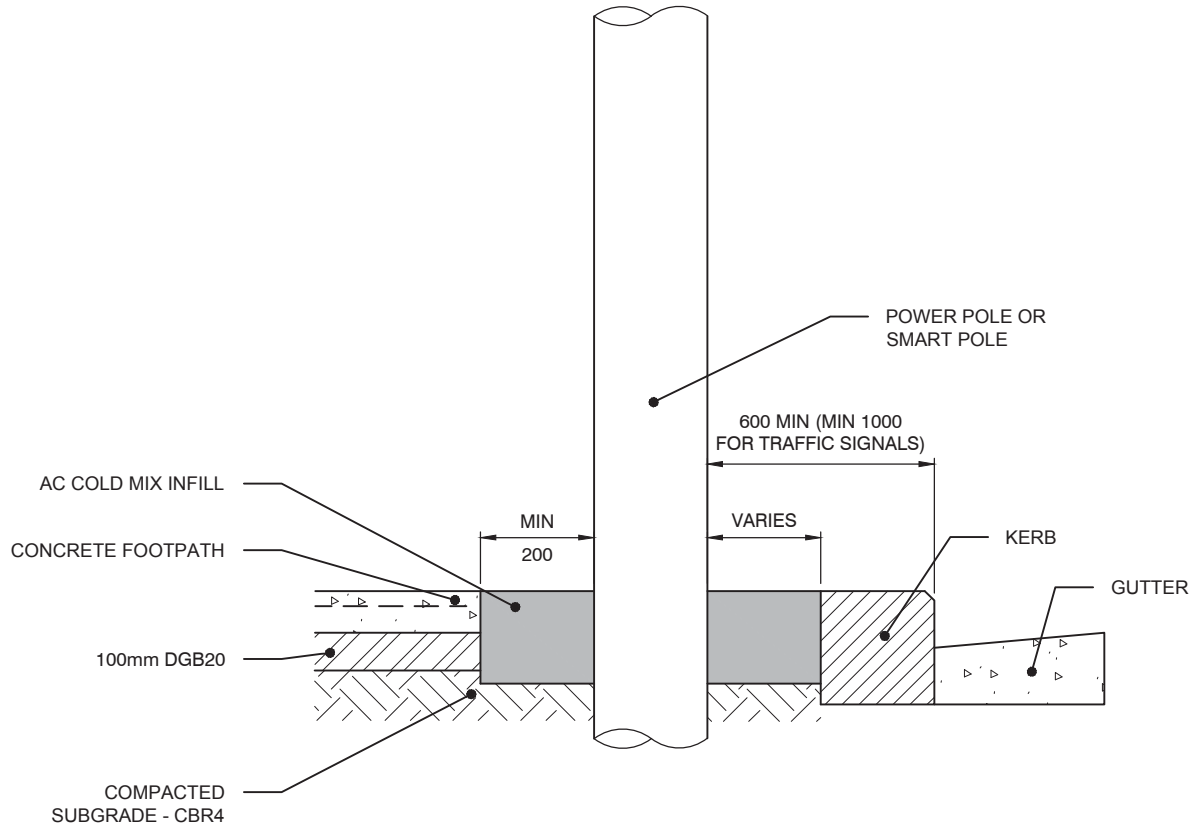
FOOTWAYS

Rev	C
Date	21.11.13
Approved	P S

Dwg No. 2.6.6



PLAN 1:20



SECTION 1:20

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

CITY OF SYDNEY

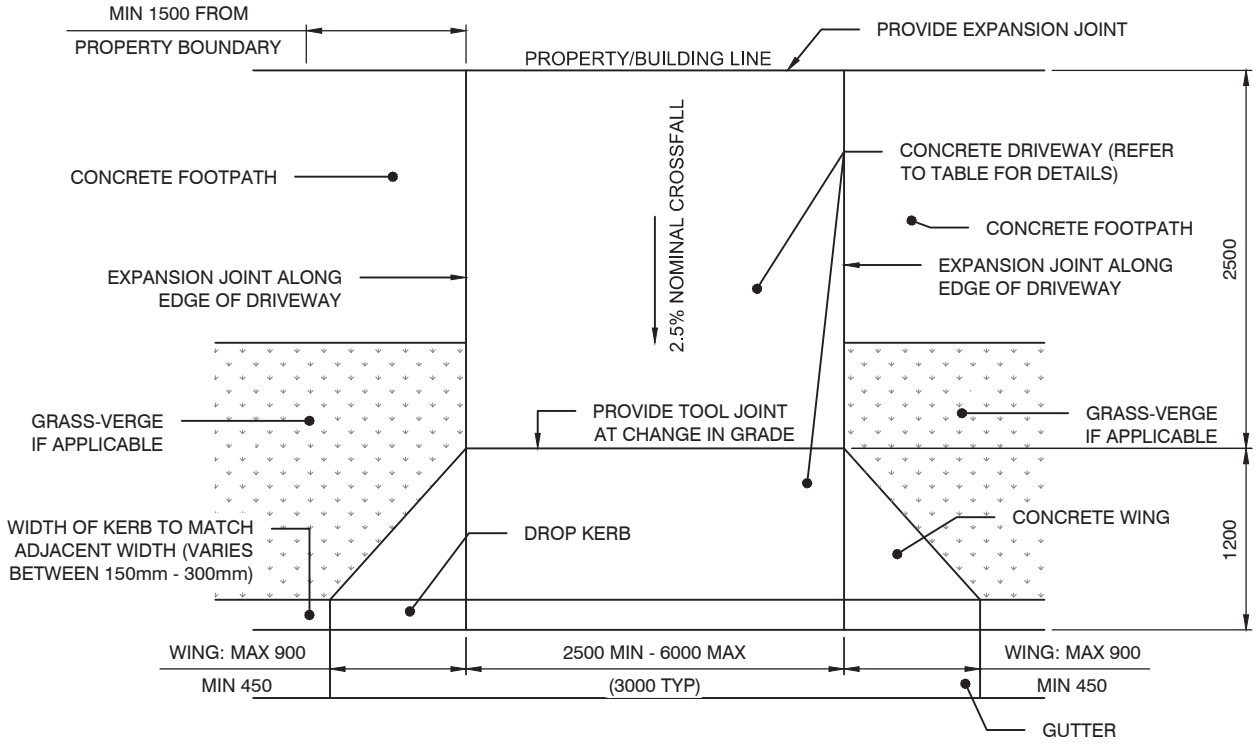
CONCRETE PAVING

PAVING AROUND LIGHT POLES AND SMARTPOLES

FOOTWAYS

Rev	B
Date	22.03.13
Approved	P S

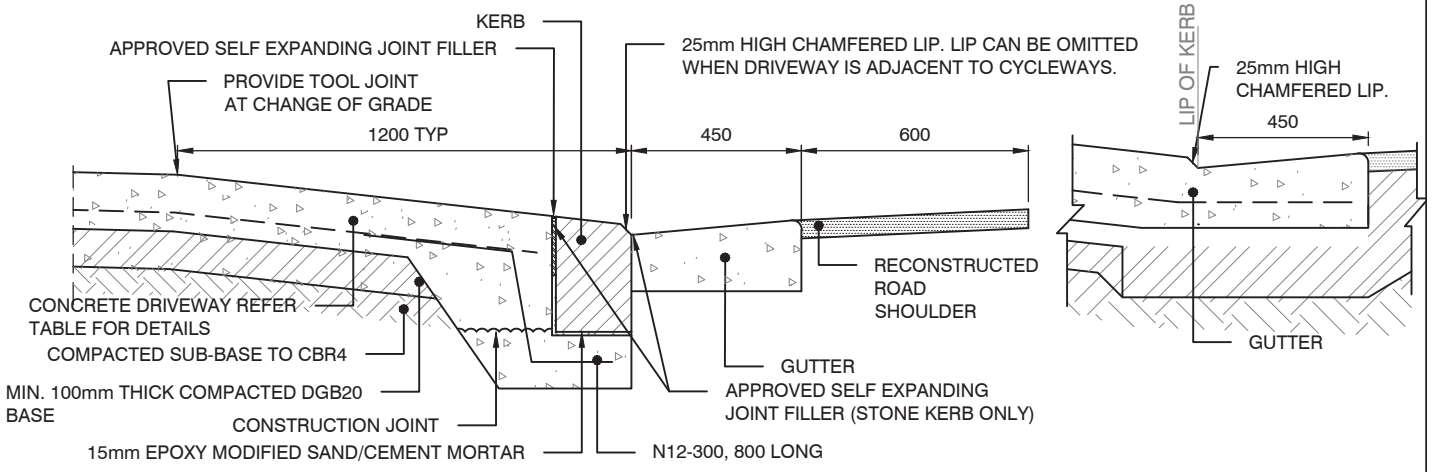
Dwg No. 2.6.7



NOTES:

1. DRIVEWAY TO BE GENERALLY PERPENDICULAR TO KERB LINE, UNLESS APPROVED OTHERWISE.
2. VERTICAL AND HORIZONTAL CLEARANCE SHALL BE CHECKED BY THE DESIGNER IN ACCORDANCE WITH AS2890.1.
3. FOR NARROW FOOTPATHS LENGTH OF RAMP TO BE AS SHORT AS POSSIBLE, OR LAYBACK ONLY TO BE USED IN APPROVED APPLICATIONS.
4. FOR DRIVEWAYS WIDER THAN 6.0m A TOOL JOINT SHALL BE PROVIDED ALONG THE CENTRE OF THE DRIVEWAY.
5. DRIVEWAY CONCRETE SHALL BE WOOD FLOAT FINISHED.

PLAN
1:50



SECTION (STONE KERB)
1:20

SECTION (CONCRETE KERB)
1:20

DRIVEWAY SPECIFICATIONS			
DRIVEWAY USE	CONCRETE STRENGTH	THICKNESS	REINFORCEMENT
SINGLE RESIDENTIAL	32MPa	150mm	SL82
MULTI RESIDENTIAL	32MPa	200mm	SL82
COMMERCIAL/ INDUSTRIAL	32MPa	250mm	TWO LAYERS SL82

NOTE: ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

CITY OF SYDNEY

CONCRETE PAVING

VEHICULAR CROSSING

FOOTWAYS

Rev	D
Date	10.06.16
Approved	P S

Dwg No. 2.6.8

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APPENDIX 13

Sydenham Station Connection

MCGREGOR COXALL

McGregor Coxall Pty Ltd. ACN 082 334 290
Sydney: +61 2 9977 3853
Melbourne: +61 3 9999 1608
sydney@mcgregorcoxall.com
melbourne@mcgregorcoxall.com
Web: www.mcgregorcoxall.com

Client
Roads and Maritime Service

Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
B51 Planning Condition

Key Plan

Scale & Orientation
1: 1200 @ A3
0 5 10 15 20 25 M
All dimensions are in millimetres unless otherwise noted. Do not scale from this drawing.

Revision Log

Rev	Revision Description	By/Checked	Date
A	For Review	LP/DK	13/9/17

Sheet Title
Sydenham Station Connection (Option A)

Sheet No. 02-08a-00
Rev A

Legend

- Proposed cycle path
- Existing footpath
- Proposed planting
- Existing planting
- Concrete kerb raised
- Parking space removed
- Potential parking space
- Proposed on-road cycle path marking
- Existing tree
- Bicycle crossing activation button / lamp (Indicative)
- Existing crossing activation button / lamp
- Existing ATN route - Council
- Original kerb alignment
- B — Existing bus stop
- 01 — Existing traffic calming upgraded
- 02 — Bicycle storage with loop detectors for signalised crossing
- 03 — Gaps in existing barrier for cyclists only
- 04 — Proposed traffic calming
- 05 — Upgrade pedestrian crossing
- 06 — Car parks removed
- 07 — Proposed separated cycle path
- 08 — Raised threshold
- 09 — Maintain 2 vehicle turning lanes
- 10 — Signalised pedestrian / cyclist crossing
- 11 — Proposed planting
- 12 — Proposed contraflow lane
- 13 — Maintain vehicle parking
- A — Cycle link into Sydenham Green
- B — Sydenham Library
- C — Opportunity for bike racks

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Client
Roads and Maritime Service

Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
B51 Planning Condition

Key Plan

Scale & Orientation
1: 500 @ A3

0 2 4 6 8 10 M

All dimensions are in millimetres unless otherwise noted. Do not scale from this drawing.

Revision Log

Rev	Revision Description	By/Checked	Date
A	For Review	LP/DK	13/9/17

Sheet Title
Sydenham Station Connection (Option A)

Sheet No. 02-08a-01

Rev A

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Key Plan

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Revision Log

Rev	Revision Description	By/Checked	Date
A	For Review	LP/DK	13/9/17

Sheet Title
Sydenham Station Connection (Option A)

Sheet No. 02-08a-02

Rev A

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Revision Log

Rev	Revision Description	By/Checked	Date
A	For Review	LP/DK	13/9/17

Sheet Title
Sydenham Station Connection (Option A)

Sheet No. 02-08a-03

Rev A

Legend

- Proposed cycle path
- Existing footpath
- Proposed planting
- Existing planting
- Concrete kerb raised
- Parking space removed
- Potential parking space
- Proposed on-road cycle path marking
- Existing tree
- Bicycle crossing activation button / lamp (Indicative)
- Existing crossing activation button / lamp
- Existing ATN route - Council
- Original kerb alignment
- B — Existing bus stop
- 01 — Existing traffic calming upgraded
- 02 — Bicycle storage with loop detectors for signalised crossing
- 03 — Gaps in existing barrier for cyclists only
- 04 — Proposed traffic calming
- 05 — Upgrade pedestrian crossing
- 06 — Car parks removed
- 07 — Proposed separated cycle path
- 08 — Raised threshold
- 09 — Maintain 2 vehicle turning lanes
- 10 — Signalised pedestrian / cyclist crossing
- 11 — Proposed planting
- 12 — Proposed contraflow lane
- 13 — Maintain vehicle parking
- A — Cycle link into Sydenham Green
- B — Sydenham Library
- C — Opportunity for bike racks

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Client
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Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
B51 Planning Condition

Key Plan

Scale & Orientation
1: 500 @ A3

0 2 4 6 8 10 M

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Revision Log

Rev	Revision Description	By/Checked	Date
A	For Review	LP/DK	13/9/17

Sheet Title
Sydenham Station Connection (Option A)

Sheet No. 02-08a-04

Rev A

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Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
B51 Planning Condition

Key Plan

Scale & Orientation
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All dimensions are in millimetres unless otherwise noted. Do not scale from this drawing.

Revision Log

Rev	Revision Description	By/Checked	Date
A	For Review	LP/DK	13/9/17

Sheet Title
Sydenham Station Connection (Option B)

Sheet No. 02-08b-00
Rev A

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Client
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Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
B51 Planning Condition

Key Plan

Scale & Orientation
1: 500 @ A3

0 2 4 6 8 10 M

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Revision Log

Rev	Revision Description	By/Checked	Date
A	For Review	LP/DK	13/9/17

Sheet Title
Sydenham Station Connection (Option B)

Sheet No. 02-08b-01

Rev A

Legend

- Proposed cycle path
- Proposed shared path
- Existing footpath
- Proposed planting
- Existing planting
- Concrete kerb raised
- Parking space removed
- Potential parking space
- Proposed on-road cycle path marking
- Existing tree
- Bicycle crossing activation button / lamp (Indicative)
- Existing crossing activation button / lamp
- Existing ATN route - Council
- Original kerb alignment
- B — Existing bus stop
- 01 — Existing traffic calming upgraded
- 02 — Bicycle storage with loop detectors for signalised crossing
- 03 — Proposed shared path
- 04 — Proposed contraflow
- 05 — Narrowed vehicle lane
- 06 — Maintain car parking
- 07 — Raised threshold
- 08 — Proposed separated cycle path
- 09 — Signalised pedestrian / cyclist crossing
- 10 — Proposed planting
- 11 — Car parks removed
- A — Cycle link into Sydenham Green
- B — Sydenham Library
- C — Opportunity for bike racks

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Client
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Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
B51 Planning Condition

Key Plan

Scale & Orientation
1: 500 @ A3

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Revision Log

Rev	Revision Description	By/Checked	Date
A	For Review	LP/DK	13/9/17

Sheet Title
Sydenham Station Connection (Option B)

Sheet No. 02-08b-02

Rev A

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Client
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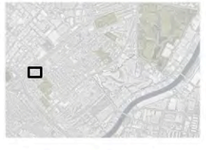
Project No. 0573SYD
WestConnex ATN Stage 2

Address
St Peters, Sydney

Phase
B51 Planning Condition

Key Plan



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Revision Log

Rev	Revision Description	By/Checked	Date
A	For Review	LP/DK	13/9/17

Sheet Title
Sydenham Station Connection (Option B)

Sheet No. 02-08b-03

Rev A

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Project No. 0573SYD
WestConnex ATN Stage 2

Address
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Phase
B51 Planning Condition

Key Plan

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Revision Log

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A	For Review	LP/DK	13/9/17

Sheet Title
Sydenham Station Connection (Option B)

Sheet No. 02-08b-04

Rev A

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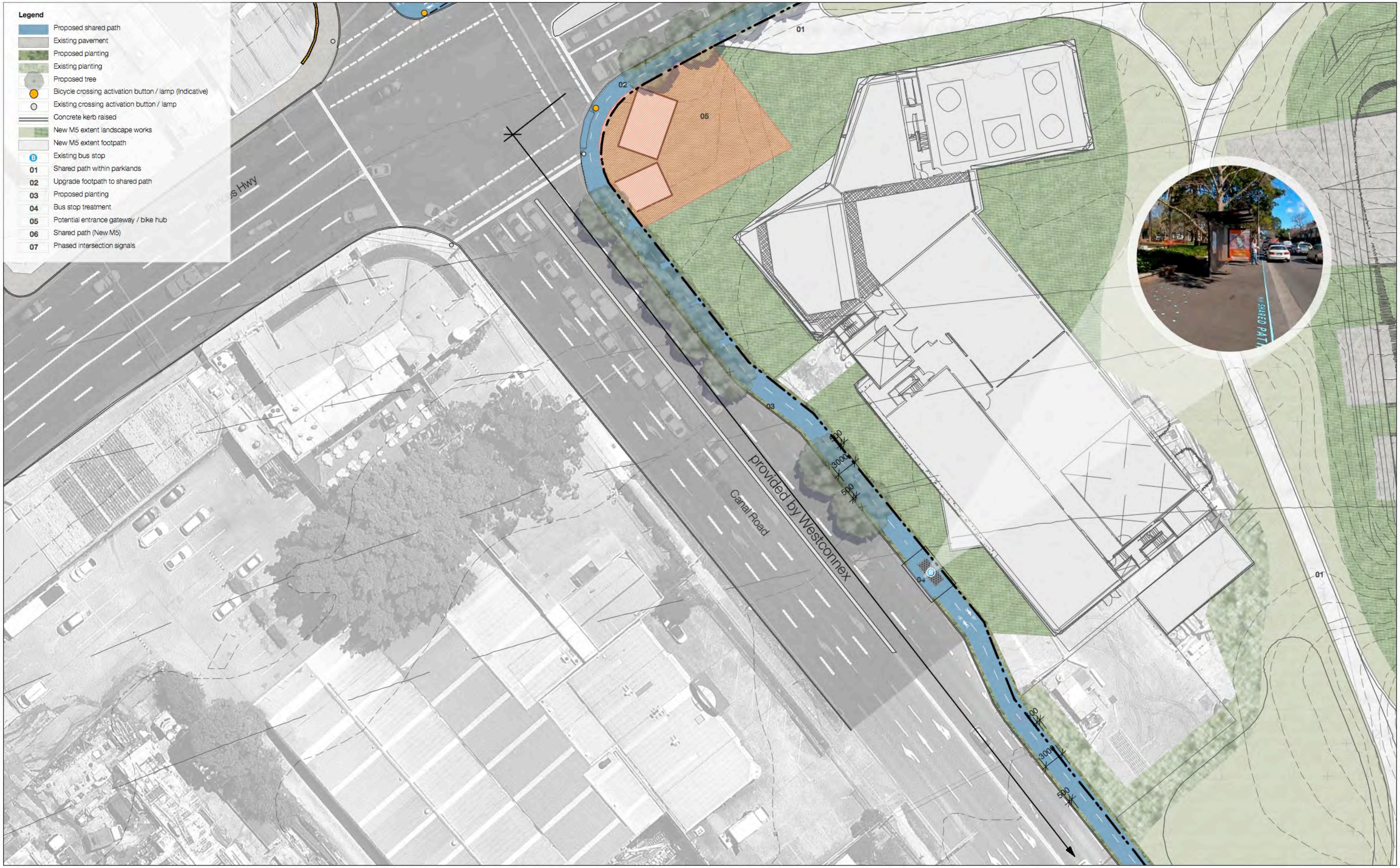
APPENDIX 14

Canal Road Shared Path



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Address
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Phase
B51 Planning Condition

Key Plan

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Revision Log

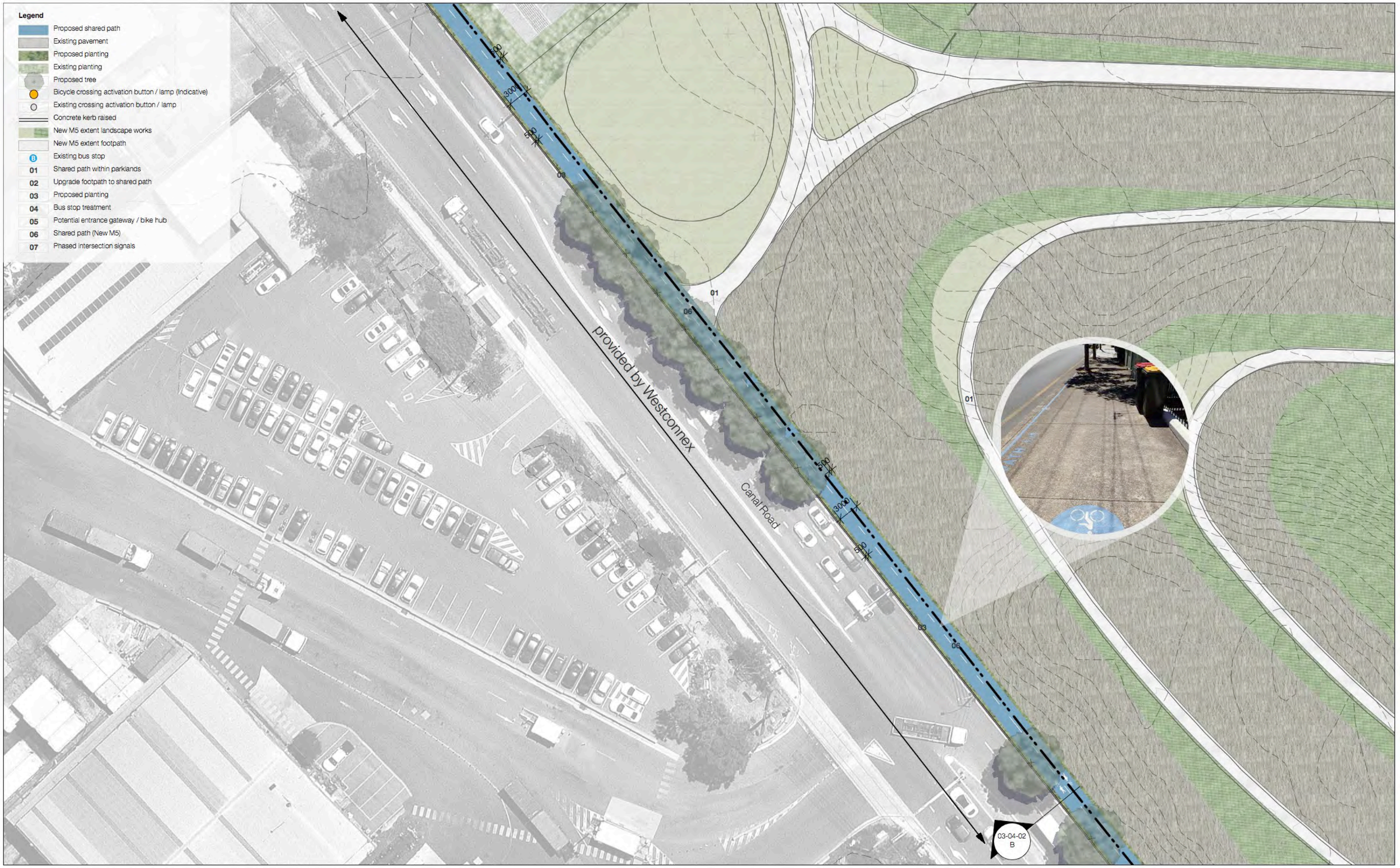
Rev	Revision Description	By/Checked	Date
C	For Review	LP/DK	8/9/17
B	Draft For Review	LP/DK	19/5/17
A	For Consultation	LP/DK	8/3/17

Sheet Title
Canal Road

Sheet No. 02-04-01
Rev C

Legend

- Proposed shared path
- Existing pavement
- Proposed planting
- Existing planting
- Proposed tree
- Bicycle crossing activation button / lamp (Indicative)
- Existing crossing activation button / lamp
- Concrete kerb raised
- New M5 extent landscape works
- New M5 extent footpath
- Existing bus stop
- 01 Shared path within parklands
- 02 Upgrade footpath to shared path
- 03 Proposed planting
- 04 Bus stop treatment
- 05 Potential entrance gateway / bike hub
- 06 Shared path (New M5)
- 07 Phased intersection signals



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Phase
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Key Plan

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C	For Review	LP/DK	8/9/17
B	Draft For Review	LP/DK	19/5/17
A	For Consultation	LP/DK	8/3/17

Sheet Title
Canal Road

Sheet No. 02-04-02

Rev C

Legend

- Proposed shared path
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Sheet Title
Canal Road

Sheet No.
02-04-03

Rev
C

Legend

- Proposed shared path
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Sheet Title
Canal Road

Sheet No.
02-04-04

Rev
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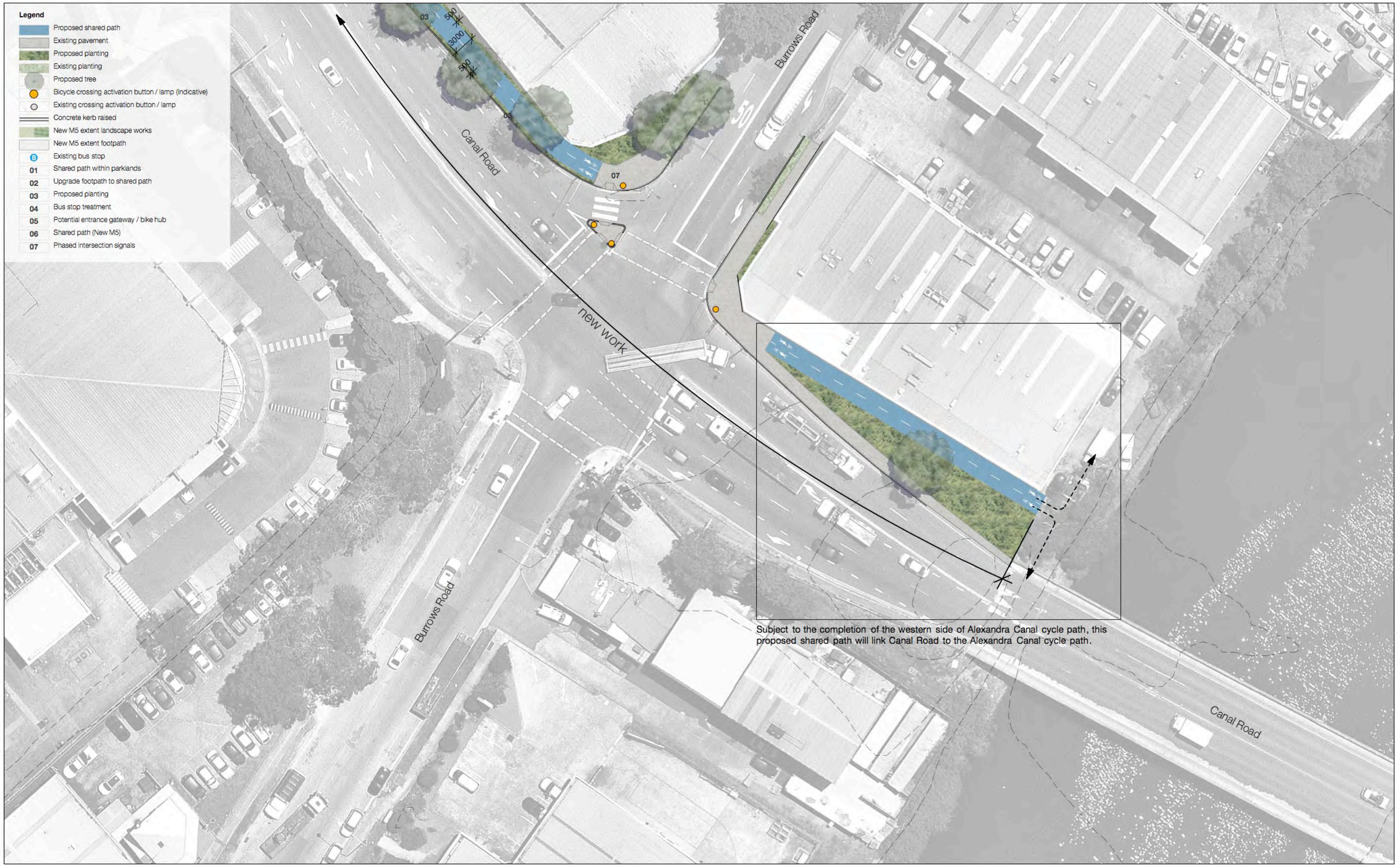

Subject to the completion of the western side of Alexandra Canal cycle path, this proposed shared path will link Canal Road to the Alexandra Canal cycle path.

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A	For Consultation	LP/DK	8/3/17

Sheet Title
Canal Road

Sheet No.
02-04-05

Rev
C

APPENDIX 15

Condition B51. Endorsement

20 September 2017

[redacted]
Project Manager – Special Projects
WestConnex Delivery Interface – Network Motorways
Roads and Maritime Services
PO Box 973
PARRAMATTA NSW 2124

[redacted]

Endorsement of Westconnex Stage 2 – New M5 Pedestrian and Cycle Implementation Strategy

Dear [redacted]

Further to your recent request I am pleased to provide the following advice in relation to the endorsement of the *WestConnex Stage 2 – New M5 Active Travel Network Planning Condition B51 Pedestrian and Cycle Implementation Strategy* as detailed the following Sections 2-8.

1 Background

The New M5 road project, Stage 2 of WestConnex, is being delivered by Sydney Motorway Corporation (SMC) on behalf of the NSW Government. The New M5 will run via twin tunnels from the existing M5 East at Kingsgrove to a new interchange at St Peters, more than doubling capacity of the corridor and substantially improving east-west corridor access between the Sydney CBD, Port Botany and Sydney Airport precincts and the South West growth areas. The New M5 will deliver approximately nine kilometres of new tunnels, motorway to motorway connections to the King Georges Road Interchange Upgrade at Beverly Hills and a new interchange at St Peters.

Included in the Minister for Planning's Infrastructure Approval of 20 April 2016, are a number of conditions relating to transport and access included to satisfy environmental performance of the project. Two conditions, B50 and B51 (see Page 2), specifically relate to Active Transport planning and provision and impacts on existing infrastructure.

To satisfy the requirements of Approval Condition B50, the project proponent, Roads and Maritime Services (RMS), engaged McGregor Coxall to undertake a review of Active Transport networks and facilities within the project area. Subsequent to the preparation of this review, RMS commissioned McGregor Coxall to prepare a detailed pedestrian and cycle implementation strategy to satisfy the requirements of Approval Condition B51.

A further requirement of Approval Condition B51 was that *this strategy shall be endorsed by a suitably qualified and experienced person(s) approved by the Secretary. The endorsement shall address each of the listed matters in this condition.*

The following sections provide details of this endorsement structured to address the points listed in the Approval Condition.

2 Engineering and safety standards

Section 3 of the *WestConnex Stage 2 – New M5 Planning Condition B51 Active Travel Network Pedestrian and Cycle Implementation Strategy* (the Strategy) provides the required advice to practitioners on design and construction guidelines for bicycle and pedestrian facilities.

In recent years there has been an ongoing process by RMS to update its traffic engineering and transport management guidelines to align with the multi-part national Austroads *Guides to Road Design and Traffic Management*. A number of these guidelines are currently under review or have been recently updated to include recent best practice in cycle facility design and provision.

Specific guidance for newer types of facilities proposed by this Strategy and currently in use by the City of Sydney, surrounding councils and RMS are listed in Section 3 of the Strategy and throughout the detailed drawings and concept design drawings.

Advice on the application of technical guidelines provided in Section 3 of the Strategy and related Appendices is considered sufficient and is endorsed.

3 Safety audit of existing facilities

Section 4 and Appendix 10 and 11 of the Strategy provide details of safety audits carried out on sites surrounding the St Peters Interchange (SPI) and paths adjacent to the M5 east of Bexley North.

The Westconnex – Stage 2 New M5, King Georges Road Interchange Upgrade project investigated options to improve the King Georges Road intersection for pedestrians and cyclists. This was addressed as part of the "Cyclist and Pedestrian Access Strategy: Part 2 Implementation". Westconnex completed a design review and feasibility assessment of the options presented in the EIS. An option to modify the signals at the intersection was also considered which included introducing a signalised crossing to the northern side of the

Approval Condition B50

The Proponent must undertake a Pedestrian and Cycleway Network Review. The Review must be prepared and approved by the Secretary within six months from the date of this approval (or as otherwise agreed by the Secretary) to identify pedestrian and cycle facilities that are to be provided by the Proponent as part of the SSI. The Review must be prepared by a suitably qualified and experienced person(s) that has been approved by the Secretary. The Review must be undertaken in consultation with the relevant councils and Bicycle NSW and address the matters raised during consultation. The Review must identify (and consider), but not be limited to:

a) current and future land use and associated pedestrian and cycle demand and needs;
b) pedestrian and cycle impacts associated with the project;
c) the King Street Gateway Project, including potential Princes Highway traffic calming initiatives;
d) Alexandra Canal initiatives;
e) regional and local pedestrian and cycling strategies;
f) pedestrian and cycle safety, accessibility and connectivity, including to the public realm;
g) intersection and signal phasing opportunities to reduce waiting and crossing times for pedestrians and cyclists;
h) provision of upgraded cycle and pedestrian facilities within 1,000 metres of the boundary of the St Peters Interchange, apart from the areas addressed in conditions 862(c) and 864; and
i) concept designs for pedestrian and cycleway infrastructure and implementation timeframes.

The Review is also to consider the delivery of the 'M5 East Green Link' between Kingsgrove and Mascot approved as part of the M5 East Motorway project. The review shall address past constraints to the delivery of this project and options to overcome these constraints.

The Review must not result in a reduced level of cycle and pedestrian infrastructure as identified in the documents referred to in condition 42, unless required by these conditions.

Approval Condition B51

A detailed Pedestrian and Cycle Implementation Strategy must be submitted to the Secretary within 12 months of the date of this approval (or as otherwise agreed by the Secretary) and implemented at the commencement of project operations, except as permitted by this approval. The strategy must be prepared in consultation with relevant councils and Bicycle NSW. The Strategy must be consistent with the approved Pedestrian and Cycleway Network Review and include:

a) pedestrian and cycle engineering and safety standards;
b) a safety audit of existing and proposed pedestrian and cycle facilities to address the above standards (including the shared path audit undertaken for the King Georges Road Interchange Project SSI-6547);
c) details of selected routes and connections to existing local and regional routes;
d) timing and staging of all works;
e) infrastructure details, including lighting, safety, security, and standards compliance;
f) signage and wayfinding measures; and
g) details of associated landscaping works.

The Strategy shall be endorsed by a suitably qualified and experienced person(s) approved by the Secretary. The endorsement shall address each of the listed matters in this condition.

All identified works arising from this condition are to be implemented by the Proponent.

intersection. This option was accepted and the design for a modified signal intersection was further progressed. The improved design is shown in the Figure 5.02 of the *WestConnex New M5 – Pedestrian and Bicycle Transport Network Review* for Planning Condition B50.

The audited sites generally corresponded to the proposed cycle/pedestrian infrastructure improvements detailed elsewhere in the Strategy and inform a number of actions proposed by the Strategy. These safety audits and the various actions resulting from them are endorsed.

4 Proposed infrastructure, network routes and connections

Section 5 of the Strategy proposes a number of cycle and pedestrian infrastructure improvements mostly in the vicinity of the SPI. These projects, listed below, are endorsed.

4.1 Campbell Street/Road between May Street and Bourke Road

The Strategy proposes a separated cycleway the full length of Campbell Street and Campbell Road between the Bedwin Road/May Street intersection and the Bourke Road/Campbell Street intersection with additional connections to the existing separated cycleway in Bourke Road. The proposed separated cycleway is associated with local road upgrades for the SPI (as detailed in the Green Link Sub-Plan for Campbell Street) and will be delivered as a part of the WestConnex New M5 Project. This cycleway is a valuable and important addition to the cycle and pedestrian networks in the region.

4.2 Euston Road and Sydney Park road intersection

As pedestrians and cyclists will take different routes through the existing road closure into Huntley Street, separate paths have been provided for each user group – pedestrian paths to link to existing footpaths and cycle-only paths to link to the Huntley Street roadway. These connections are located and designed to provide minimum detours along pedestrian and cyclist travel desire lines.

4.3 St Peters Interchange shared path

The path as proposed in Section 5.3 of the Strategy and its offshoots to and from the landscaped mound will also connect to the upgraded path along Canal Road as detailed in Section 5.12 of the Strategy.

4.4 M5 East Linear Park shared paths and M5 Green Link

The construction and relocation of shared paths are proposed in Section 5.4 of the Strategy and its Appendices.

4.5 Campbell Road land bridge

A concept design for a land bridge across Campbell Road linking Sydney Park to a new recreational/sporting area south of Campbell Road is provided in Section 5.5 of the Strategy.

The provision of a high quality separated path from the land bridge through the centre of Sydney Park to the intersection of Sydney Park Road and Mitchell Road is supported in preference to a cycle route along Euston Road. This path will connect with the new paths through the western side of the SPI (to Sydenham and Canal Road) and the City of Sydney Regional Route R8 at the intersection of Mitchell Road and Sydney Park Road.

4.6 City of Sydney Regional Cycle Route R8 connection north of Sydney Park

The proposal in Section 5.6 of the Strategy provides a separated cycleway link between the

intersection of Mitchell and Sydney Park Roads and the intersection of Huntley and Belmont Streets. The concept design, shown in Figure 5.12 and Appendix 5 of the Strategy, proposes a separated two-way bicycle path along the northern edge of Mitchell Road between Sydney Park Road and Huntley Street continuing along the northern edge of Huntley Street to Belmont Street.

4.7 Campbell Street and Bedwin Road connections

The separated cycleway along the northern edge of Bedwin Road between May Street and Darley Street is proposed in the Strategy (Section 5.7 and Appendix 6). This important network link connects routes associated with the New M5 project to Inner West Council Regional cycle routes linking with the City of Sydney regional cycle route R10 via the Lord and Darley Streets one-way pair.

The provision of cycleway or shared path connection to existing and proposed paths in Camdenville Park is supported as these provide important active transport connections to St Peters Station, King Street activity centre, Sydney Park (north) and the City of Sydney regional cycle route R8 along Sydney Park Road.

4.8 Princes Highway and Canal Road intersection

Section 5.8 of the Strategy proposes a pedestrian and cycle connection between the paths through the SPI (NW corner) and the local Sydenham street network at Bay street. This proposal links to the Sydenham Station connection as detailed in Section 5.11 and Appendix 13 of the Strategy.

4.9 King Street Gateway

Section 5.9 and Appendix 8 of the Strategy provides details of proposed pedestrian and cycle facility improvements in the vicinity of the intersection of King Street, Princes Highway and Sydney Park Road as part of the King Street Gateway project.

4.10 Airport Gateway

Key future bicycle and pedestrian network connections to be made between the SPI and Sydney Airport as listed in Section 5.10 of the Strategy are:

- Linkages to the proposed Alexandria Canal paths (both sides of canal)
- Links to the existing shared path along the southern side of Alexandria Canal between Coward Street and the International Terminal
- A safe and connected cycle link across the Cooks River on or adjacent to the Giovanni Brunetti Bridge.
- A future route between the SPI path network and the airport.

4.11 Sydenham Station connection

Section 5.11 and Appendix 13 of the Strategy includes concept designs for a regional cycle connection to Sydenham Station via local streets using a mixture of shared paths separated bicycle paths and new ‘bicycle boulevard’ treatments where LATM measures are introduced selectively to improve through bicycle access while reducing vehicle speeds to 30km/h by design and restricting motor vehicle traffic to local access only. The improvement of cycle access through the signalised crossings at the intersection of George Street and Unwins Bridge Road is also included as part of this project.

4.12 Canal Road between Princes Highway and Alexandria Canal

An upgraded shared path along the northern side of Canal Road between the Princes Highway and the Alexandria Canal is proposed in Section 5.12 of the Strategy connecting the path network surrounding the SPI to future Alexandria Canal path developments and future airport access routes.

5 Timing and staging of works

The construction timings and staging of proposed cycle/pedestrian facilities as detailed in Section 9 of the Strategy are endorsed.

6 Infrastructure details

Section 6 of the Strategy and Appendices 1 to 13 provide details of infrastructure and compliance with relevant technical guidelines for the cycle and pedestrian infrastructure improvements covered in Section 5 of the Strategy. These details are endorsed and are included in the comments in Section 4 above.

7 Signage and wayfinding

Section 7 of the Strategy recommends current design guidelines for cycle network directional and wayfinding signage to be used on proposed cycle and pedestrian infrastructure. A key issue in relation to bicycle route signage in the area covered by the New M5 project is that destination names used on wayfinding signage be consistent with the current version of the Inner Sydney Regional Cycle Network Focal Point Map for sign system planning. The current version of this map is included on Page 96 of the Strategy. Regional routes developed by the New M5 project will be added to this focal point map during a future update. Section 7 details relating to signage and wayfinding are endorsed.

8 Associated landscaping

Section 8 of the Strategy proposes a number of landscaping works associated with the project, mostly in the vicinity of the SPI. These projects are endorsed.

9 M5 Greenlink

The Strategy identifies a critical need to complete the important missing bicycle network link between Bexley North and Wolli Creek to connect existing path systems and to provide cyclists with a high quality facility offering safe comfortable travel comparable to motor traffic along this important transport corridor. The process recommended in Section 1.2 of the Strategy to develop a constructible cycle route connection between the current M5 path system at the overpass on Bexley Road at Bexley North and the existing path system at the intersection of Princes Highway and Brodie Spark Drive is endorsed.

Please do not hesitate to contact me should you require clarification or additional guidance on any of the matters raised in this endorsement.

Yours sincerely

[redacted]

Managing Director


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