

Site-specific Ancillary Facilities Management Plan and D46 Report: Tolling Gantries – Kingsgrove, Bexley, Princes Highway and Marsh Street Interchanges

Project Name: WestConnex New M5

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Document Approval

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00	29/06/18	CDS-JV				
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Signature:						

Site-specific AFMP & D46: Tolling Gantries



Details of Revision Amendments

Document Control

The Project Director is responsible for ensuring that this Plan is reviewed and approved. The Support Services Director (SSD) is responsible for updating this Plan to reflect changes to the Project, legal and other requirements, as required.

Amendments

Any revisions or amendments must be approved by the Project Director before being distributed or implemented.

Revision Details

Revision	Details
00	Prepared for WCX M5 AT, RMS and ER review
01	Update to incorporate review comments
02	Update to incorporate DPE review comments



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1. Introduction

1.1 Context

The New M5 Project is the Stage 2 component of the WestConnex scheme, a NSW Government initiative to connect Sydney's west and south-west with the Sydney Airport and the Port Botany precinct. It is being delivered by the Sydney Motorway Corporation (SMC), formerly the WestConnex Delivery Authority (WDA).

The CPB Contractors Dragados Samsung Joint Venture (CDS-JV) will deliver the design and construction of WestConnex Stage 2 referred to as the New M5 (the Project). The Project will run from the existing M5 East corridor at Beverly Hills via tunnel to St Peters, providing improved access to the airport, south Sydney and Port Botany precincts. The Project will substantially improve the east - west corridor access between the Sydney CBD, Port Botany and Sydney Airport precincts and the South West growth areas.

The Project will deliver approximately nine kilometres of two-lane twin tunnels with capacity to operate three lanes in the future, motorway to motorway connections to the King Georges Road Interchange Upgrade at Beverly Hills, and a new interchange at St Peters. Infrastructure Approval was granted for the project on 20 April 2016. Major works commenced in mid 2016 and the New M5 tunnel is scheduled to open to traffic in early 2020.

The Construction Environmental Management Plan (CEMP) provides further background and a detailed description of the Project.

The Ancillary Facilities Management Plan describes the establishment and use of the approved ancillary facilities identified in the New M5 Environmental Impact Statement (EIS).

1.2 Purpose and scope

This Site-specific Ancillary Facilities Management Plan (SSAFMP) describes four ancillary facilities, additional to those approved under the EIS. The facilities are for the purpose of supporting the installation of tolling gantries and associated services along the existing M5 East and the New M5 motorway.

Tolling points are identified in the EIS at King Georges Road interchange, Kingsgrove Road interchange, Bexley Road interchange and St Peters interchange (refer to Figure 5-2, Figure 5-3 and Figure 5-7 of the EIS). An additional five tolling points have been added to the project and are the subject of an RMS Consistency Assessment. The additional locations include:

- Eastbound off-ramp to Princes Highway from M5 East
- Eastbound off-ramp to Marsh Street
- Westbound off-ramp to Marsh Street
- M5 East mainline eastbound at Marsh Street
- M5 East mainline westbound at Marsh Street

Final design for the tolling gantries has identified the need for additional ancillary facilities to enable construction of the tolling infrastructure. This SSAFMP describes and assesses ancillary facilities required for the construction of the Kingsgrove Road, Bexley Road, Princes Highway and Marsh Street tolling points.

The sites do not meet the locational criteria identified in condition of approval (CoA) D62 and do not meet the requirements of a minor ancillary facility (CoA D64) as they are located outside the approved project area. There are no approved routes that provide access to the sites at Kingsgrove Road, Princes Highway and Marsh Street and therefore a request to use local roads for access to these sites is also included in this document. This SSAFMP has been prepared for the approval of the Secretary, Department of Planning and Environment (DP&E), to satisfy CoA D63 and D46.

2. Environmental Planning Requirements

2.1 Compliance with CoA D63 and D46

Section 4 and Appendix E of the approved Ancillary Facilities Management Plan (AFMP) describe the approval pathways for ancillary facilities associated with the project. For proposed ancillary facilities that are not included in the EIS and are not compliant with CoA D62 or D64, a Site-Specific Ancillary Facilities Management Plan (SSAFMP) is required to be approved by the Secretary, DP&E.

The Tolling Gantries Ancillary Facilities are not included in the EIS and are located outside of the project area and therefore outside an active construction zone. Approval of an SSAFMP, under CoA D63 is therefore required. Table 1 identifies the requirements of CoA D63 and where they are addressed in this SSAFMP.

Table 1: Compliance with requirements of CoA D63 and D46

CoA Reference		Requirement	Where addressed
D46		Unless otherwise approved by the Secretary, heavy vehicle movements associated with the construction of the SSI are not permitted to use Wirega Avenue and Garema Circuit at Kingsgrove, or any other local road not identified for use in the documents referred to in conditions A2(b) and A2(c), unless approved by the Secretary. When seeking the Secretary’s approval for use of such local roads, justification must be provided as to why use of the local road(s) is the only feasible and reasonable route along with details on how impacts on surrounding sensitive receivers will be managed.	Section 3.1.5 Section 3.2.2
D63	a)	a detailed description of the ancillary facility, including proposed use and access arrangements;	Section 3.1
	b)	a review of the environmental and social impacts of the ancillary facility, including an analysis of compliance with the locational criteria specified in condition D62;	Section 3.2
	c)	measures to avoid, mitigate and manage environmental and social impacts associated with the ancillary facility; and	Section 5
	d)	demonstration that, with the measures proposed in accordance with (c), the impacts of the ancillary site are consistent with - i. the overall project impacts described in documents referred to in conditions A2(b) and A2(c), and ii. all relevant conditions of this approval.	Section 6

3. Identify and Assess

3.1 Detailed description of the ancillary facility

3.1.1 Site description

The proposed ancillary facility sites are located along the existing M5 East motorway at existing entry/exit points (refer to Figure 1). Specifically located:

- Kingsgrove Road interchange
- Bexley Road interchange
- Princes Highway interchange
- Marsh Street interchange

The use of these sites will be limited to the activities described in section 3.1.2 below. Existing compounds for the project at Kingsgrove, Bexley and Arncliffe will be used as much as possible to reduce further impacts to the receivers at these ancillary sites.

3.1.2 Site activities

3.1.2.1 Kingsgrove Rd Interchange

This area comprises of a single compound located to the north of the existing M5 at the end of Arinya Street to support the construction of the tolling gantry, technical shelter and utilities works (Figure 2). The ancillary activities to be undertaken for this compound include establishment of access from Arinya Street, installation of ATF fencing, establishment of erosion and sediment controls where required and installation of a portable toilet. The site will be used for laydown, storage and minor parking and to receive deliveries of concrete and equipment.

Works are due to commence in August 2018 and are expected to take approximately 2 months. Rehabilitation of the site will occur progressively through this time in accordance with CoA .

3.1.2.2 Bexley Rd Interchange

This compound will be located to the south of the existing M5 motorway to support the construction of the technical shelter with single car parking space as well as ITS works (figure 4). The ancillary activities to be undertaken include establishment of access along the shared pathway, installation of ATF fencing, establishment of erosion and sediment controls where required and installation of a portable toilet. The site will be used for laydown/storage and to receive deliveries..

Works are expected to begin in August 2018 and take approximately 3 months. Rehabilitation will occur progressively through this time.

3.1.2.3 Princes Highway Interchange

The area will comprise of a compound on either side of the existing M5 off-ramp, including the existing compound area accessed from Burrows Street and described in the Wolli Creek SSAFMP (approved by DPE on 14/11/2016). The compound will support the construction of a single tolling gantry and the construction of a technical shelter with permanent access from Ann Street. The ancillary activities to be undertaken include establishment of access from Ann Street, installation of ATF fencing, establishment of erosion and sediment controls where required and installation of a portable toilet. The site will be used for laydown, storage and minor parking and to receive deliveries.

This work is expected to begin in August 2018 and take approximately 2 months. Rehabilitation will occur progressively through this time.

3.1.2.4 Marsh Street Interchange

The area will comprise of a compound located north of the existing M5 off-ramp to Marsh Street. The compound will support the construction of a tolling gantry and the construction of a technical shelter with permanent foot access from Marsh Street (local road, accessed from Valda Avenue) as well as other works in this area including installation of services along and across Marsh Street (arterial road), the installation of a gantry at the westbound on-ramp and gantries on the M5 Motorway south of Marsh Street and an underbore for the installation of conduit across Marsh Street. The ancillary activities to be undertaken at the compound include establishment of access from Marsh Street (local road, accessed from Valda Avenue), installation of ATF fencing, establishment of erosion and sediment controls where required, installation of a portable toilet and use of the site for laydown/storage/parking and to receive deliveries.

This work is expected to begin in September 2018 and take approximately 3 months. Rehabilitation will occur progressively through this time.

Refer to Table 5 for further details of the proposed activities at the site.

3.1.3 Hours of operation

The ancillary facilities would be operated during standard working hours, where possible:

- 7 am – 6 pm Monday to Friday, inclusive; and
- 8 am – 1 pm Saturday;
- At no time on Sundays or public holidays.

The ancillary facilities will also be operated during the evening and night time periods to support construction works conducted during the monthly M5 maintenance shutdowns. The shutdowns will be used for works that will impact on the operation of the M5 Motorway. The shutdowns occur over 4 consecutive nights with alternating eastbound, westbound and full road closures. Dates of the upcoming maintenance shutdowns are included in Table 2 below. The ancillary compounds will be used to support construction activities during these M5 shutdowns.

Table 2: Schedule of M5 Maintenance shutdowns

Month/Year	Date
July 2018	• Sunday 22 nd – Wednesday 25 th
August 2018	• Sunday 19 th – Wednesday 22 nd
September 2018	• Sunday 16 th – Wednesday 19 th
October 2018	• Sunday 21 st – Wednesday 24 th
November 2018	• Sunday 18 th – Wednesday 21 st
December 2018	• Sunday 9 th -Wednesday 12 th

Note: 2019 dates to be confirmed.

Deliveries would primarily be restricted to standard working hours. Some deliveries may need to occur outside of standard construction hours for safety and/or road network restriction reasons. These works will be carried out in accordance with the Infrastructure Approval (in particular CoA D15) and any applicable Road Occupancy Licences (ROLs).

Operation of the ancillary facilities would be in accordance with all requirements specified in the Ancillary Facilities Management Plan (AFMP), the Construction Environmental Management Plan (CEMP) and CEMP Sub-Plans.

3.1.4 Services and utilities

No temporary connections or modifications to services or utilities are required for the compounds.

3.1.5 Site access

Access to the compounds will be as follows for each of the sites. Avoidance of local roads has been maximised. Where local road use is necessary, the route with least impact on sensitive receivers has been selected.

3.1.5.1 Kingsgrove Rd Interchange



Access to the compound will be via Homer St and Arinya Street in the Canterbury-Bankstown Local Government Area. Homer Street and Arinya Street are classified as Local Roads and therefore will require approval under CoA D46 for use by heavy vehicles. All other deliveries including the tolling infrastructure will be made from the M5 during the monthly maintenance closures. Access to the compound will be required during these night time periods.

3.1.5.2 Bexley Rd Interchange

Access to the compound will be via the pedestrian access path from Bexley Road in the Canterbury-Bankstown Local Government Area. Deliveries of plant and equipment will be from the M5 during the monthly maintenance shutdowns. Access to this compound will be required at night during these periods.

3.1.5.3 Princes Highway Interchange

Access to the Ann Street compound will be via Allen Street to Argyle Street and Ann Street in the Bayside Local Government Area. Access to the Burrows Street compound will be as per the existing approved route via Brodie Spark Drive and Arncliffe Street. CoA D46 approval will be needed for the use of Allen, Argyle and Ann Streets.

3.1.5.4 Marsh Street Interchange

Access to the Marsh Street compound will be from the M5 eastbound motorway via Marsh Street (arterial road), Flora Street, West Botany Street, Valda Avenue and Marsh Street (local road) in the Bayside Local Government Area. The use of Flora Street, Valda Avenue and Marsh Street (local) will require CoA D46 approval.

3.1.6 Workforce and vehicle movements

The total number of light and heavy vehicle movements at the sites each day is likely to vary depending on activities that are occurring at the site. Generally up to 3 heavy vehicles (6 movements) per working day will be expected at each of the compounds. Once the site is established and plant has been delivered, light vehicles will be the predominant movements with limited heavy vehicle movements required for cement deliveries.

Table 3: Indicative vehicle movements and personnel numbers per day

Ancillary Facility	Light vehicle movements per day	Heavy vehicle movements per day	Personnel
Kingsgrove	14	6	10
Bexley	14	0	10
Princes Highway	14	6	10
Marsh Street	14	6	10

Note: all vehicle movements will occur during the daytime period, unless required for emergency purposes, safety or road network restriction purposes. Access to the compounds will be required at night during the monthly M5 maintenance shutdowns.

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3.1.7 Plant, equipment and materials

Major equipment and vehicles to be used at each site will include:

- Piling rig
- Concrete pump
- Concrete trucks
- Excavator (up to 12t)
- Compaction equipment
- Hand tools
- Crane (About a 150t)
- Franna
- HDD rig
- Float trucks
- Utility/light vehicles

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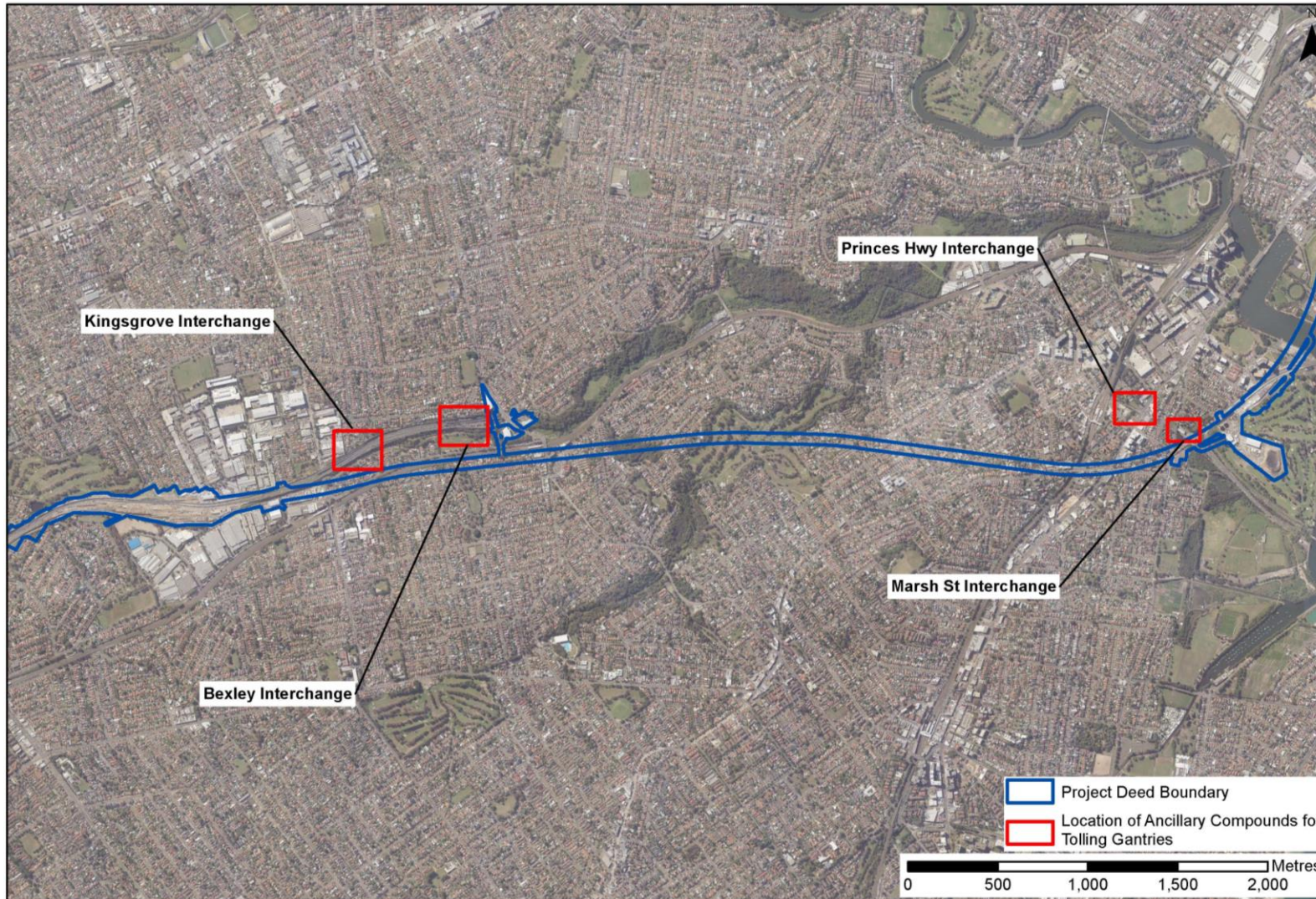


Figure 1: Site locations overview

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Figure 2: Kingsgrove Interchange site compound layout

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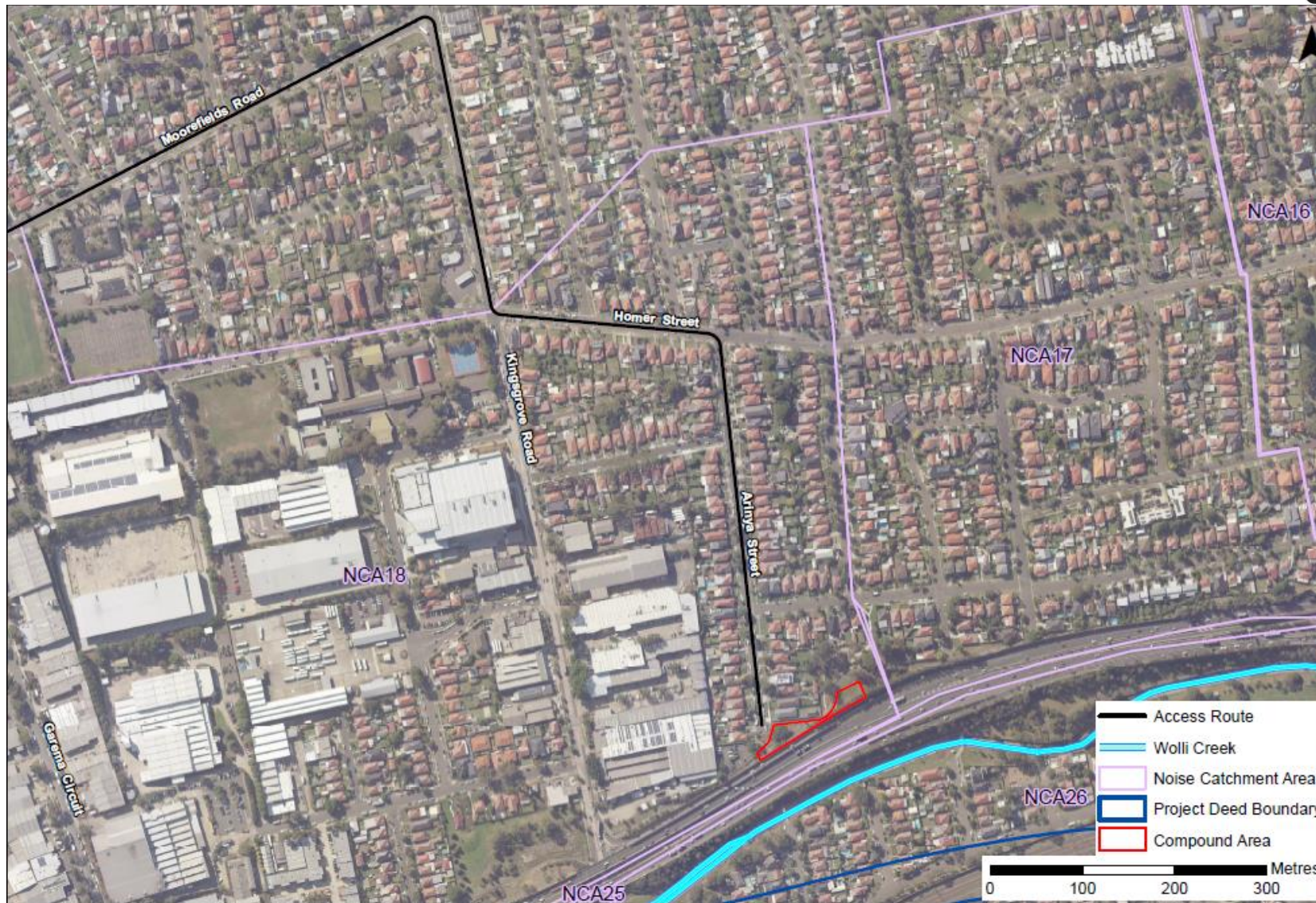


Figure 3: Kingsgrove Interchange site access route

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Figure 4: Bexley Interchange site layout and access route

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Figure 5: Princes Highway Interchange site layout

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Figure 6: Princes Highway interchange access route

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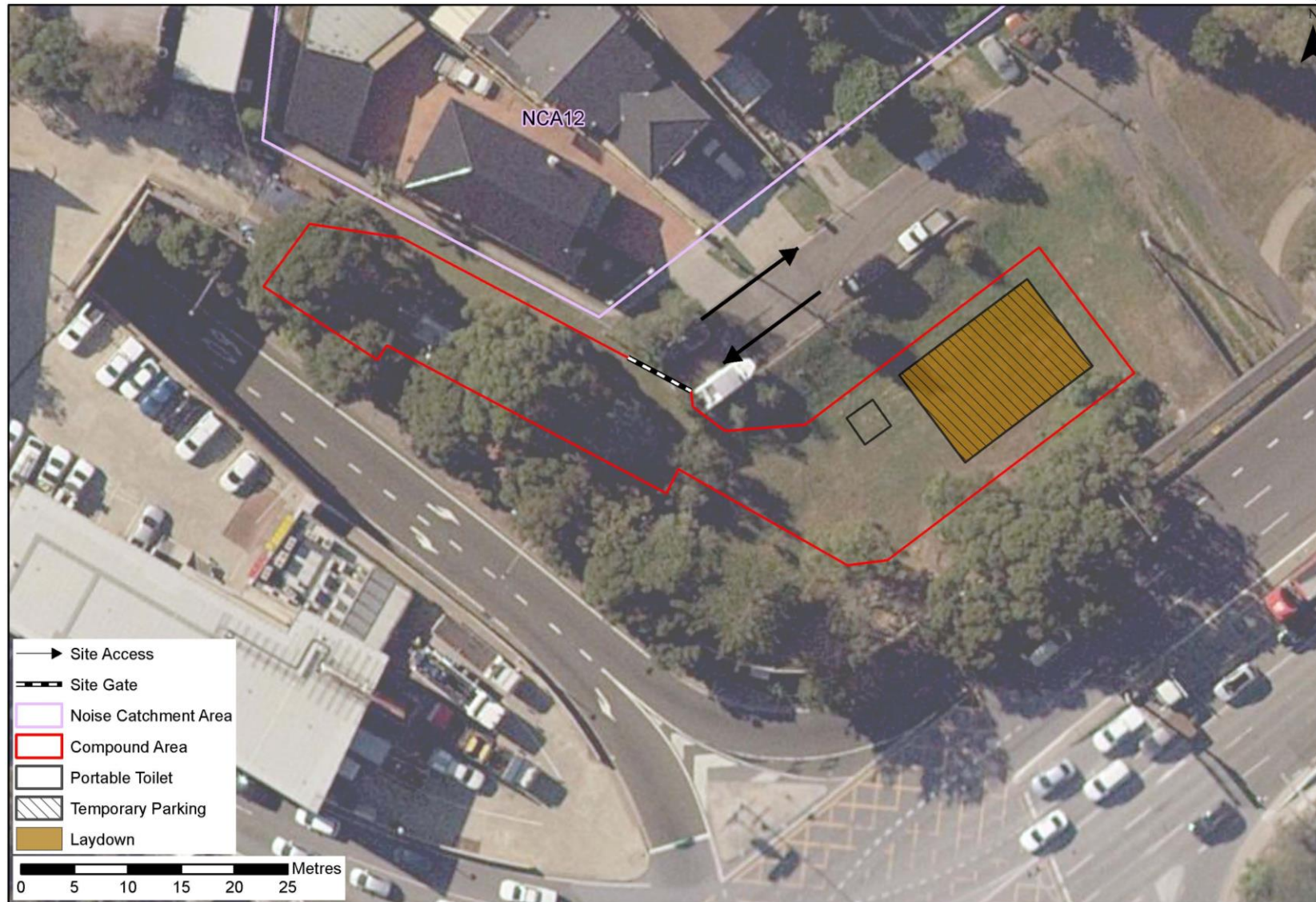


Figure 7: Marsh Street site layout



Figure 8: Marsh Street site access route

3.2 Construction aspects and environmental impacts

3.2.1 Locational criteria assessment

Table 4: Locational criteria for ancillary facilities (CoA D62)

CoA D62 Reference	Requirement	Compliant	Comments
a)	Be located more than 50 metres from a waterway;	✘	The Bexley compound does not meet this requirement as it will be situated within 50 m of Wollie Creek (5). Refer to Section 3.2.5 for further details and Section 5 for controls. All other sites comply.
b)	Be located within or adjacent to land where the SSI is being carried out;	✘	None of the sites meet this requirement. The sites are located along the existing M5 corridor and within the SSI area, but not directly adjacent to existing construction sites.
c)	Have ready access to the road network;	✓	All sites meet this requirement. Refer to section 3.1.5 and Figure 3, Figure 4, Figure 6 and 8 for further information on site access.
d)	Be located to minimise the need for heavy vehicles to travel on local streets and/or through residential areas;	✓	All sites meet this requirement. Refer to section 3.1.5 and Figures 2-8 for details on heavy vehicle access.
e)	Be sited on relatively level land;	✓	The Kingsgrove, Princes Highway and Marsh Street sites meet this requirement. The Bexley site has a slope running south towards Wollie Creek that will be levelled during establishment works in this area.
f)	Be separated from nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant);	✘	None of the sites meet this requirement. Kingsgrove, Princes Highway and Marsh Street Interchange sites border residential properties. Bexley is approximately 70 m from the nearest receiver. Refer to Sections 3.2.3 and 3.2.4 and Figures 2-8. Refer to Section 5 for controls.
g)	Not require vegetation clearing beyond that already required by the SSI;	✘	Additional vegetation is required to be removed at all sites as part of this work. Refer to 3.2.6 for additional information.
h)	Not impact on heritage items (including areas of archaeological sensitivity) beyond those already impacted by the SSI;	✓	All sites meet this requirement. Refer to Section 3.2.7.
i)	Not unreasonably affect the land use of adjacent properties;	✓	All sites meet this requirement. Use of the sites would have temporary impacts on users of the pedestrian paths at the Kingsgrove and Bexley Interchange sites and permanent impacts on 2-3 car parking spaces at Ann Street. With the

CoA D62 Reference	Requirement	Compliant	Comments
			implementation of the site-specific management measures in Section 5 of this SSAFMP, the use of these sites are not expected to unreasonably affect the land use of adjacent properties.
j)	Be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented; and	✘	The Kingsgrove Interchange site is within the 20 year ARI flood level. Flood contingency measures are provided in Section 5 of this SSAFMP. All other sites comply.
k)	Provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours.	✓	All sites are considered to have sufficient storage area for the plant, equipment and materials required for the works. Deliveries will occur during standard hours, except where required by a Road Occupancy Licence (ROL) or for safety reasons.

3.2.2 Traffic and transport

Compound access would be:

- Kingsgrove Interchange – access will be via Arinya Street from Homer Street (Figure 3). Arinya is a local road and will require DPE approval under CoA D46 for use. Note that this is the most direct way to the compound and the M5 noise barrier prevents entry from the south. In addition to Arinya Street, the M5 maintenance shutdowns will be utilised for large deliveries and construction works at this location.
- Bexley Interchange – access will be via the pedestrian footpath from MOC2 (Figure 4), which will remain open during the works. Traffic access will be limited here with personnel walking in from the existing Bexley carpark. In addition the M5 maintenance shutdowns will also be utilised for large deliveries and construction works at this location.
- Princes Highway Interchange – access will be via Allen, Argyle and Ann Street (Figure 6). These are local roads and will require DPE approval under CoA D46 for use. This is the most direct way to enter the site and passes the least number of residences. Access to the Burrows Street compound will be in accordance with the existing approval for use of this site (refer Site-specific Ancillary Facilities Management Plan for Wollie Creek). The M5 maintenance shutdowns will also be utilised for large deliveries and construction works in this location.
- Marsh Street Interchange – access will be from the M5 Motorway via Marsh Street, Flora Street, West Botany Street, Valda Avenue and Marsh Street (local road) (Figure 8). This is the most direct way to access the site from the arterial road network. DPE approval under CoA D46 will be required for the use of Flora Street, Valda Avenue and Marsh Street (local road). The M5 maintenance shutdowns will also be utilised for large deliveries and construction works in this location.

Sites will be managed in accordance with the Construction Traffic and Access Sub-plan, including development of a Traffic Control Plan (TCP) for each site. Traffic impacts will be monitored during the works and consultation with the relevant stakeholders will be ongoing. Additional traffic control measures will be implemented if required.

Potential traffic and access impacts on the proposed routes are considered to be minor given the low number of vehicles, and in particular, low numbers of heavy vehicles, that would be accessing the sites (refer Section 3.1.6).

3.2.3 Noise and vibration

A construction noise and vibration impact statement (CNVIS) is being prepared for the toll gantry construction works to determine the relevant constraints on working hours and any additional noise mitigation required in accordance with the project's Conditions of Approval and the Construction Noise

and Vibration Management Plan (CNVMP). Noise impacts associated with the operation of and access to the ancillary facilities is considered to be minor in comparison to the associated construction impacts.

The nearest residential receivers are located directly adjacent to the Kingsgrove and Princes Highway sites. The nearest residential receivers to the Bexley site are approximately 70 m south of the site.

Other sensitive receivers in the surrounding areas include the passive recreational areas between Arinya and Bobadah Streets in Kingsgrove, Kingsgrove Avenue Reserve and the Masjid Darul Imaan Mosque at Eden Street, Wolli Creek.

Works conducted within or affecting the M5 East Motorway (eg. lifting of gantries and tolling shelters with a crane) will need to be conducted during the monthly scheduled M5 East Maintenance Shutdowns and therefore outside of standard construction hours. Works conducted outside the Motorway corridor will be undertaken during standard construction hours where possible (i.e. piling and concrete works and services installations).

Noise impacts associated with the works and access are expected to be relatively minor and short term in nature. Where noise impacts on surrounding receivers are not expected to comply with the relevant NMLs outside of standard construction hours, additional mitigation measures will be implemented in accordance with the CNVMP.

Section 5 of this SSAFMP identifies the relevant noise mitigation and management measures, including the requirement for a CNVIS to be prepared and implemented.

3.2.4 Visual amenity

The compound areas will be fenced for the duration of the construction works. The sites will be visible from residences and roads, however due to the short duration of this work the visual and light spill impacts associated with the use of the site are expected to be relatively minor and temporary. The sites would be rehabilitated to their existing condition except for the permanent infrastructure, including technical shelters, required in each location. Management measures outlined in Table 6 would be implemented to minimise visual amenity and light spill impacts at the sites.

3.2.5 Soil and water quality

Minor trenching and excavation will be required at each site for installation of services, piling for the gantries and footings for the technical shelters. The Bexley site is located in close proximity to Wolli Creek (refer to Figure 5). The Kingsgrove, Princes Highway and Marsh Street sites are not located in proximity to any waterways. All works will be conducted in accordance with an approved Erosion and Sediment Control Plan as prescribed by the Construction Soil and Water Sub-Plan. With the implementation of mitigation measures outlined in Table 6, it is expected that potential soil and water quality impacts at the site would be minor.

3.2.6 Flora and fauna

Impacts on flora and fauna at the proposed sites have been assessed as part of the Consistency Assessment for the Tolling Gantries. An inspection of all tolling gantry sites was also undertaken by a suitably qualified arborist over a few days in accordance with CoA B63. During these inspections it was noted that 230 trees/tree groups were assessed and:

- 199 are prescribed
- 31 are non-prescribed and therefore exempt from the need for a B63 approval
- 4 have high retention values
- 86 have medium retention values
- 136 have low retention values

Four Magenta Lily Pilly trees (*Syzygium paniculatum*) have been identified to be potentially impacted and are classified as “Endangered” species under the NSW Threatened Species Conservation Act 1995 and ‘Vulnerable’ under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999. It was noted that these specimens were planted within a road island and not planted to reinforce dwindling populations.

A Tree Report has been prepared in accordance with B63 and will be submitted for approval prior to any impacts on any trees.

Any damage to vegetation would be minimised, and the sites will be rehabilitated to their existing condition, subsequent to the completion of the works.

With the implementation of mitigation measures outlined in Table 6, it is expected that potential impacts on flora and fauna at the site would be minor.

3.2.7 Heritage

The project area was assessed for heritage potential in the EIS and no heritage items have been identified at or immediately adjacent to any of the proposed ancillary facility sites.

The EIS does not identify any known or potential Aboriginal heritage sites in the vicinity of the proposed sites. The Unexpected Heritage Finds Procedure would be implemented in the event of any potential heritage find.

With the implementation of mitigation measures outlined in Table 6, it is expected that potential impacts on heritage would be unlikely.

3.2.8 Air quality

Air quality impacts associated with the works would be consistent with construction works across the project in general and may comprise minor dust and exhaust emissions from plant and vehicle use associated with the works. Given the temporary and minor nature of the works, and with the implementation of measures outlined in Table 6, any impacts to air quality are expected to be minor.

3.2.9 Waste and contamination

Small amounts of waste materials will be generated during drilling and trenching. General construction waste will be segregated and collected in adequately labelled skips and disposed at licensed waste collection facilities. Waste collection and transfer will be documented and tracked. Any contamination would be dealt with as per the project Unexpected Contaminated Finds Procedure. With the implementation of the measures outlined in Table 6, impacts associated with waste are expected to be minor.

3.2.10 Socio-economic

Use of the proposed site has the potential for some minor impacts on the local community including pedestrian diversions at the Kingsgrove Interchange and the permanent loss of 2 parking spaces at Ann Street. Appropriate fencing and traffic management would be implemented at these sites during this period. The permanent loss of two parking spaces on Ann Street will be addressed in the Operational Parking and Access Strategy.

No property acquisition would be required for these sites and construction parking will be contained within the proposed sites. The affected stakeholders are being consulted in accordance with the Community Communication Strategy and communications will be maintained prior to and during the works. On the completion of the proposed works all temporarily impacted land would be restored to its original condition, or better. Permanent infrastructure will remain at the sites, including the gantries and technical shelters.

With the implementation of the mitigation measures outlined in Table 6, any potential socio-economic impacts associated with the site compound would be minor.

3.2.11 Rehabilitation

In accordance with CoA D65, ancillary facilities must be rehabilitated to at least their pre-construction condition or better, to the satisfaction of the Secretary, unless otherwise agreed by the landowner. Restoration works would include clean up, dismantling and removal of all temporary site facilities, as well as rehabilitation of vegetated areas where required, or as otherwise agreed with the landowner. Rehabilitation of each site will happen progressively through the works.

3.2.12 Cumulative impacts

These construction compounds would be in addition to a number of other construction compounds/sites in the surrounding area. The New M5 Kingsgrove, Bexley and Arncliffe Construction Compounds will be operating in close proximity to the sites.



Construction activities in addition to the New M5 works also occur in the area, including new building developments in the Wollli Creek area. Given the minor nature and location of the proposed works, however, cumulative impacts are expected to be minor.

With the implementation of mitigation measures outlined in Table 6, it is considered that any potential cumulative impacts on the surrounding community would be temporary and minor.

3.2.13 Construction activities and associated impacts summary

Key construction activities to be conducted at all of the gantry sites are identified in Table 5 below, along with the associated impacts and corresponding environmental controls.



Table 5: Key site activities proposed during construction

Key work activities	Key environmental impacts	Key environmental controls
<ul style="list-style-type: none"> • Site establishment activities including: <ul style="list-style-type: none"> ▪ deliveries ▪ installation of fencing ▪ installation of environmental controls ▪ clearing for access and services work • Trenching and underbore works for services • Piling works for gantry footings • Deliveries of cement and structures • Craning in (lifting) of gantries and Technical Shelters • Decommissioning of site, including removal of all construction plant and materials, site rehabilitation and clean-up. 	<p>Spills or leaks of fuels or other hazardous substances</p> <p>Erosion/sedimentation impacts from removal of vegetation.</p> <p>Exposure of Potential and/or Actual Acid Sulfate Soils.</p>	<p>Refer to the management measures in Section 5</p> <p>Also refer to the Construction Soil and Water Quality Sub-plan (M5N-ES-PLN-PWD-0005) and the AFMP</p>
	<p>Generation of waste</p>	<p>Refer to the management measures in Section 5</p> <p>Also refer to the Construction Waste and Resource Sub-plan (M5N-ES-PLN-PWD-0008) and the AFMP</p>
	<p>Clearing/pruning of vegetation on site.</p>	<p>Refer to the management measures in Section 5</p> <p>Also refer to the Construction Flora and Fauna Sub-plan (M5N-ES-PLN-PWD-0007)</p>
	<p>Socio-economic impacts including use of shared user pathway</p>	<p>Refer to the management measures in Section 5</p> <p>Also refer to the Community Communication Strategy (M5N-CS-PLN-PWD-0008)</p>
	<p>Amenity impacts (visual, noise, light spill) on local residents.</p>	<p>Refer to the management measures in Section 5</p> <p>Also refer to the Construction Noise and Vibration Management Plan (M5N-ES-PLN-PWD-0003-14) and the AFMP</p>
	<p>Traffic and pedestrian/cyclist access impacts.</p>	<p>Refer to the management measures in Section 5</p> <p>Also refer to the Construction Traffic and Access Sub-Plan (M5N-ES-PLN-PWD-0004) and the AFMP.</p>

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Key work activities	Key environmental impacts	Key environmental controls
	Dust and emissions/air quality impacts due to removal of ground cover and use of vehicles and plant.	Refer to the management measures in Section 5 Also refer to the Construction Air Quality Sub-plan (M5N-ES-PLN-PWD-0002)
	Unexpected heritage finds	Refer to the management measures in Section 5 Also refer to the Construction Heritage Sub-plan (M5N-ES-PLN-PWD-0006)



4. Consultation

Consultation has been/will be undertaken with the following stakeholders affected by the proposed sites:

- Canterbury/Bankstown Council
- Bayside Council
- Businesses on Ann Street, Wolli Creek
- Local residents

A summary of the works has been provided to Canterbury-Bankstown Council and Georges River Council in July 2018. No response has been received from either of these councils to date. A meeting was held with Bayside Council in June 2018 and additional information provided in July 2018. Bayside Council did not raise any issues providing the local community are notified of the works.

Businesses on Ann Street have been consulted in regards to the proposed impacts on 2 parking spaces and have no concerns in regards to this change. They will receive further notification once timing of works is confirmed.

Residents in the Kingsgrove community have been doorknocked and letterboxed dropped explaining services investigation works and tolling works generally . They will receive further information as the work program progresses.

Community notification will be provided to advise the surrounding community of the proposed site use in accordance with the Community Communication Strategy.

Refer to Appendix B for evidence of consultation undertaken to date.

Site-specific AFMP & D46: Tolling Gantries



5. Implement Controls

The table below details mitigation and management measures to specifically address the identified potential environmental and social impacts resulting from the operation of the four tolling gantry site compounds. These measures will be implemented in addition to any relevant CDS-JV environmental procedures and controls described in the AFMP and CEMP. Implementation of all control measures will:

- Minimise any potential adverse impacts arising from the use of the site compounds, and
- Ensure compliance with environmental obligations and requirements.

Regular compliance activities, such as inspections, observations and monitoring will be undertaken throughout the operation of the compounds, inclusive of any subcontractor activities. These compliance activities and any non-conformances will be undertaken in accordance with Element 3 of the CEMP.

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Table 6: Site-specific environmental safeguards

No.	Impact	Environmental safeguards	Responsibility	Timing
WC1.	General	<ul style="list-style-type: none"> All relevant safeguards provided in the Ancillary Facilities Management Plan (M5N-ES-PLN-PWD-0026), the Construction Environmental Management Plan (M5N-ES-PLN-PWD-0001) and all sub-plans must be implemented. 	Project manager	Prior to and during site operation
WC2.		All environmental safeguards must be incorporated within the following: <ul style="list-style-type: none"> Construction Area Plan Work Pack (Including Site Environment Plan) 	Project manager	Prior to site operation
WC3.		<ul style="list-style-type: none"> Training will be provided to all Project personnel, including relevant sub-contractors on site management and emergency response requirements through inductions, toolboxes and targeted training where required. 	Project manager	Prior to and during site operation
WC4.		<ul style="list-style-type: none"> The weekly environmental inspection checklist will be completed and will record ancillary facility management related issues. 	Environmental coordinator	Site operation
WC5.		<ul style="list-style-type: none"> Measures to be implemented to ensure effective communication between grout plant area and grouting area. All personnel to be toolboxed/trained in emergency response protocols for the site. 	Project manager	Prior to and during site operation
WC6.	Community	<ul style="list-style-type: none"> CDS-JV will advise affected property owners and occupiers of the site use in accordance with the Community Communication Strategy. 	Community relations manager	Prior to and during site operation
WC7.		<ul style="list-style-type: none"> Stakeholders will be consulted regularly throughout the works to advise of status of the works, any delays to the expected program and where works may be required to be undertaken on a Saturday. 	Community relations manager	Prior to and during site operation
WC8.		<ul style="list-style-type: none"> Community complaints will be recorded and actioned in accordance with the Community Communication Strategy. 	Community relations manager	Site operation

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No.	Impact	Environmental safeguards	Responsibility	Timing
WC9.	Traffic and access	<ul style="list-style-type: none"> Access to Kingsgrove Interchange site via Arinya Street and via the M5 during shutdowns Access to Bexley Site through pedestrian walkway from MOC2 and from the M5 during shutdowns Access to the Princes Highway sites from Allen, Argyle, Ann, Arncliffe and Burrows Streets Access to the Marsh Street site via Marsh St, Flora St, West Botany Street, Valda Avenue and Marsh Street (local road). 	Project manager Site supervisor	Site operation
WC10.		<ul style="list-style-type: none"> If closure of the shared pathway at Bexley is required at any time during service installation works, an alternative route to be implemented and sign-posted for path users. 	Project manager Site supervisor	Site operation
WC11.		<ul style="list-style-type: none"> Consultation to inform of any major events scheduled and any further traffic control (e.g. traffic controllers) that may need to be implemented. 	Community relations manager Project manager	Site operation
WC12.		<ul style="list-style-type: none"> Deliveries will be carried out during standard construction hours where feasible and reasonable. Project personnel to be made aware of appropriate access and parking requirements for the site during induction/toolbox talks. Project personnel to be encouraged to use public transport to access site. 	Site supervisor	Site operation
WC13.		<ul style="list-style-type: none"> Management and mitigation measures outlined in the CNVIS to be implemented where relevant 	Site supervisor	Site operation
WC14.	Noise	<ul style="list-style-type: none"> Works to occur during standard construction hours (7 am – 6 pm Monday to Friday, 8 am – 1 pm Saturday) where possible or during approved M5 East maintenance shutdowns. 	Project manager Site supervisor	Site operation

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No.	Impact	Environmental safeguards	Responsibility	Timing
WC15.		<p>Appropriate behavioural practices to be reinforced at site inductions / toolboxes, including:</p> <ul style="list-style-type: none"> • Relevant site approval conditions and site specific mitigation measures • Location of nearest sensitive receivers • No unnecessary loud swearing or unnecessary shouting, • No loud stereos/radios on site, • No dropping of materials from height where practicable or throwing of items, and • No slamming of doors. 	Site supervisor	Site operation
WC16.		<p>Plant that is brought to site should meet the sound power limits identified in the CNVIS. Where plant exceeds limits then the plant may require installation of 'noise control kits' to comply with the noise limits set in the CNVIS. Such 'noise control kits' comprise:</p> <ul style="list-style-type: none"> • high performance 'residential-grade' exhaust mufflers • additional engine cowling / enclosure lined inside with sound absorbent industrial-grade foam, and • air intake and discharge silencers / louvres. • The requirement of fitting 'noise control kits' onto the identified plant, shall be confirmed once each plant is tested prior to its regular use on site. 	Project Manager Site Supervisor	Site operation
WC17.		Ensure all deliveries occur during standard construction hours where reasonable and feasible.	Site supervisor	Site operation
WC18.		<ul style="list-style-type: none"> • Non-tonal reversing beepers (or an equivalent mechanism) must be fitted & used on all vehicles regularly used on site. 	Project Manager Site supervisor	Site operation
WC19.		<ul style="list-style-type: none"> • Plant and equipment would be switched off when not in operation for periods of greater than 15 minutes. Where reasonable and feasible, noisy equipment will be substituted for alternative low-emitting equipment particularly for activities or in locations that may impact on potential noise sensitive receivers. 	Site supervisor Environmental advisor	Site operation

Site-specific AFMP & D46: Tolling Gantries



No.	Impact	Environmental safeguards	Responsibility	Timing
WC20.		<ul style="list-style-type: none"> Noisy equipment and equipment with directional noise emissions will be orientated away from sensitive receivers where practicable. The distance between plant and noise sensitive receivers will be maximised where practical. Avoid/ limit simultaneous operation of noisy plant and equipment within discernible range of a sensitive receiver 	Site supervisor Environmental advisor	Site operation
WC21.		<ul style="list-style-type: none"> Site induction to include awareness of flora and fauna requirements on site, including Awareness of No-go zones and limits to clearing on site Any unexpected species finds on site to be reported to the Environment advisor/Environment & Sustainability Manager. 	Project Manager Site supervisor Environmental advisor	Site operation
WC22.	Flora and fauna	<ul style="list-style-type: none"> No-go zones to be implemented for all retained vegetation on site. No access to exclusion zones without a permit to enter no-go zones. 	Site supervisor Environmental advisor	Site operation
WC23.		<ul style="list-style-type: none"> Any vegetation pruning and clearing to occur in accordance with the Construction Flora and Fauna Sub-plan (M5N-ES-PLN-PWD-0007) and a Tree Report approved by DP&E 	Site supervisor Environmental advisor	Site establishment
WC24.		<ul style="list-style-type: none"> Equipment storage and laydown areas to be located in hardstand areas, outside the drip line of trees 	Project manager Site supervisor	Site operation
WC25.		<ul style="list-style-type: none"> Unexpected species finds to be managed in accordance with the Manage Flora and Fauna Procedure. 	Site supervisor Environmental advisor	Site operation
WC26.		<ul style="list-style-type: none"> If a threat to an animal is evident onsite, the Site supervisor and/or Environmental advisor must be notified immediately. Works may need to cease if the animal is in danger or harmed until it has been relocated. The handling of injured fauna must be carried out by licensed fauna handler such as fauna ecologist or wildlife carer. 	Site supervisor Environmental advisor	Site operation

Site-specific AFMP & D46: Tolling Gantries



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No.	Impact	Environmental safeguards	Responsibility	Timing
WC27.		<ul style="list-style-type: none"> Weed and pathogen management and control will be undertaken in accordance with the project Construction Flora and Fauna Sub-Plan (M5N-ES-PLN-PWD-0007), including ensuring vehicles and machinery are clean prior to entering site 	Site supervisor Environmental advisor	Site operation
WC28.		<ul style="list-style-type: none"> Rehabilitation of site to occur at the completion of site operations to at least its pre-construction condition (refer Section 3.2.11), or as otherwise agreed with the landowner. 	Project Manager	At the completion of site operation
WC29.		<ul style="list-style-type: none"> Erosion and sedimentation control plan (ESCP) to be developed for the site consistent with Managing Urban Stormwater – Soils and Construction Vols 1 and 2, 4th Edition (Landcom 2004). ESCP to include controls to protect waterway (Cooks River). 	Environmental advisor	Prior to site operation
WC30.	Soil and Water	<ul style="list-style-type: none"> The assessment, classification and management of Potential and Actual Acid Sulfate Soils will be managed in accordance with the Acid Sulfate Soils Sub-plan, part of the Construction Soil and Water Quality Sub-Plan (M5N-ES-PLN-PWD-0005). 	Project Manager	Site operation
WC31.		<ul style="list-style-type: none"> Sediment controls to be inspected and maintained as necessary, including after rain 	Site supervisor Environmental advisor	Prior to site operation
WC32.		The following measures are to be implemented where a forecast rainfall event poses a potential flood risk to the site: <ul style="list-style-type: none"> Mobile equipment to be moved to higher ground or flood mitigated land (i.e. Kingsgrove compound), Non-mobile equipment to be appropriately secured. 	Project Manager Site supervisor	Prior to rainfall event with potential flood risk

Site-specific AFMP & D46: Tolling Gantries



SAMSUNG C&T

No.	Impact	Environmental safeguards	Responsibility	Timing
WC33.		<p>The following measures to be in place to avoid and manage spills:</p> <ul style="list-style-type: none"> No long-term storage of chemicals or hazardous substances on site Any temporary storage of fuels, chemicals and other hazardous materials to be in appropriately secure and bunded areas in accordance with EPA guidelines Spills or contaminated runoff would be captured and treated and / or disposed of at a licensed facility Any re-fuelling and wash down would be undertaken in bunded areas to mitigate risks in relation to spills or leaks of fuels / oils or other hazardous onsite construction material Any soil which has been contaminated with fuel, oils or other chemicals would be disposed as contaminated soil by a waste subcontractor. 	<p>Project manager Site supervisor Environmental advisor</p>	Site operation
WC34.		<ul style="list-style-type: none"> In the event of a spill the Spill Management Procedure will be implemented. Emergency spill kits will be kept onsite and Project personnel would be aware of the location of spill kits and trained in their use. 	<p>Site supervisor Environmental advisor</p>	Site operation
WC35.	Visual amenity	<ul style="list-style-type: none"> Site fencing to be maintained during site operation Only approved areas of vegetation to be pruned/cleared 	<p>Project Manager Site supervisor Environmental advisor</p>	Site operation
WC36.		<ul style="list-style-type: none"> Cut-off and/or directed lighting would be used at the site with lighting location and direction considered to ensure glare and light spill are minimised. Lighting to be generally consistent with the requirements of Australian Standard 4282-1997 Control of the obtrusive effects of outdoor lighting. Any residual night lighting impacts to adjoining or adjacent properties to be managed in consultation with affected landowners. 	Project Manager	Site operation
WC37.	Air quality	<ul style="list-style-type: none"> Dust suppression measures to be incorporated into the Erosion and Sedimentation Control Plan for the site. 	Environmental advisor	Prior to site operation

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SAMSUNG C&T

No.	Impact	Environmental safeguards	Responsibility	Timing
WC38.		<p>Control emissions on site, including:</p> <ul style="list-style-type: none"> • Ensure all construction vehicles comply with their relevant emission standards • Ensure that, where practicable engine idling is minimised when vehicles are stationary • Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable • Promote and encourage sustainable travel (public transport, cycling, walking, and car-sharing) • No bonfires and burning of any materials including waste. 	<p>Project Manager Site supervisor</p>	<p>Site operation</p>
WC39.	Waste	<ul style="list-style-type: none"> • All liquid and/or non-liquid waste generated on the site must be assessed and classified in accordance with Waste Classification Guidelines (DECCW, 2009) or any superseding documents. 	<p>Site supervisor Environmental advisor</p>	<p>Site operation</p>
WC40.		<ul style="list-style-type: none"> • All waste materials removed from the site must only be directed to a waste management facility or premises lawfully permitted to accept the materials. 	<p>Site supervisor Environmental advisor</p>	<p>Site operation</p>

6. Consistency with existing project impacts and approvals

The use of the Kingsgrove Interchange, Bexley Interchange, Princes Highway and Marsh Street Interchange site compounds will assist in achieving the environmental objectives for the New M5 project as identified in the EIS, the CEMP and associated Sub-plans. The proposed facilities are for the purpose of supporting tolling gantry works, which are required to meet the distance based tolling criteria as described in the EIS.

The impacts associated with the site, identified in Section 3.2, have been subject to an RMS Consistency Assessment and are considered to be minor and consistent with the impacts identified in the New M5 EIS and other project approval documentation. The identified impacts can be appropriately managed through implementation of the management measures identified in Section 5 of this SSAFMP as well as those identified in the AFMP, the CEMP and the relevant Sub-plans.

Site-specific AFMP & D46: Tolling Gantries

Appendix A: Ancillary Facility Application

Attachment 1: Ancillary Facility Application

Step 1 – Ancillary facilities information			
Site location (attach map for reference):		Kingsgrove Interchange Bexley Interchange Princes Highway Interchange Marsh Street Interchange	
Date works to commence: July 2018		Date works to finish: January 2019	
Proposed activities (select all that apply):			
Office and amenities		Construction compound	x
Laydown area	x	Parking	x
Batch Plant		Materials storage compound	
Maintenance workshop		Material stockpile area	
Other _____		Other _____	
Please provide details regarding the proposed ancillary facility.			
Is the proposed facility within the approved construction footprint?		No. The compounds are located along the existing M5 in order to facilitate the installation of tolling infrastructure.	
Distance to the nearest waterway?		<50m to Wolli Creek at the Bexley Compound. Erosion and sediment control measures will be implemented.	
Proposed access route?		Refer to Figures 3, 4, 7 and 8 of the SSAFMP for access routes.	
Do heavy vehicles need to travel through residential areas?		Yes. Local Roads will be used for the Kingsgrove, Princes Highway and Marsh St Compounds. DPE approval will be required for these routes.	
Is the proposed site on relatively level ground?		Yes	
Distance to nearest residential receiver?		Residential receivers are <10m away at the Kingsgrove Compound and <70m at the Bexley Compound. A CNVIS will be prepared for the works to identify appropriate mitigation measures.	
Is vegetation clearance or trimming required? If so, what is the area in hectares?		Yes. 155 trees are required to be removed as part of the work across the four compounds. A tree report is being prepared for DPE approval.	
Will the facility impact heritage?		No	
Will the facility affect the land use of adjacent properties?		Use of the site would have temporary impacts on users of the pedestrian paths at the Kingsgrove and Bexley Interchange sites and permanent	

	impacts on 2-3 car parking spaces at Ann Street. With the implementation of the site-specific management measures in Section 5 of this SSAFMP, the use of these sites are not expected to unreasonably affect the land use of adjacent properties
Is the facility above the 20 ARI flood level?	No, the Kingsgrove compound is within the 20 ARI. Flooding impacts are expected to be minor due to the type of works.
Will out of hours works be required to establish facility? During operation of the facility?	Yes. The existing M5 maintenance shutdowns which occur once a month will be utilised for the work in conjunction with standard hours.
Potential noise and vibration impacts?	Some impacts will be experienced by the residents at Arinya Street but works will be kept to standard hours as much as possible. A CNVIS will be prepared.
Potential dust or odour impacts?	Minor impacts may occur but water will be used to suppress any dust.
Potential visual or light spill impacts?	Impacts will be temporary and minor. Compound fencing will be visible from residents and the roadway.
Potential waste management impacts?	General construction waste will also be generated at the site. All general waste will be removed via a licenced contractor overseen by CDS-JV.
Potential soil and water impacts?	No impacts are expected but soil and water will be managed through on site controls in accordance with the site specific Erosion and Sediment Control Plan (ESCP).

Step 2 – Environmental and Sustainability Manager Review

Is additional assessment required (e.g. noise, biodiversity, heritage)?	Yes. A biodiversity assessment has been completed (WCX M5 AT). A CNVIS is being prepared.
Is the proposed facility compliant with CoA D62 criteria?	No
Is the ancillary facility included in the EIS?	No
Does the ancillary facility have minimal amenity impacts to surrounding residences?	Yes
Does the ancillary facility have minimal environmental impact?	Yes
Can potential impacts be managed through existing controls identified in the CEMP?	Yes

Step 3 – Sign off

Name:

[Redacted]

Community Relations Manager

Name:

[Redacted]

Environmental and Sustainability Manager

Name:

[Redacted]



Step 4 – Environmental Representative sign off

Is this a minor ancillary facility (CoA D64)?

No

Does this ancillary facility require DP&E approval?

Yes

Does the AFMP need to be updated?

Yes

Name:

[Redacted]

[Redacted]



Appendix B: Evidence of consultation