

## Pre-Construction Minor Works Approval Form

Minor Works are defined as any low impact activities that are undertaken prior to the commencement of 'construction' as defined in the project's applicable planning approval. However if Minor Works affect or potentially affect heritage items, threatened species, populations or endangered ecological communities, these works are defined as 'construction' unless otherwise determined by the applicable planning authority.

Minor Works approvals do not remove any obligation to comply with the project's applicable planning approval conditions (including requirements prior to 'any works' commencing) or obtain any other applicable permits, licenses or approvals as necessary.

This application and all supporting information must be submitted to TfNSW/the Environmental Representative as one (1) PDF file at least 10 business days prior to the commencement of the proposed Minor Works.

Part 1: Application	
<b>Contractor:</b>	METRON T2M
<b>Project:</b>	Southwest Metro Design Services (SMDS)
<b>Application Title:</b> (e.g. Smith St trenching works)	General site-wide invasive works
<b>Application Number:</b>	SMDS-PCMW-003
<b>Application Date:</b>	Rev 00: 18 October 2019 Rev 01: 28 October 2019 Rev 02: 29 October 2019
<b>Planning Approval:</b>	Sydney Metro City and Southwest – Sydenham to Bankstown – Environmental Impact Statement (EIS) Sydney Metro City and Southwest – Sydenham to Bankstown – Submissions and Preferred Infrastructure Report (SPIR) Sydney Metro City and Southwest Infrastructure Approval SSI-8256
<b>Minor Works Categories:</b> <ul style="list-style-type: none"> <li>Highlight as applicable.</li> <li>If Items 4, 8 or 11 are applicable, this form must be endorsed by an Environmental Representative.</li> </ul>	<ol style="list-style-type: none"> <li>Survey, survey facilitation and investigations works (including road and building dilapidation survey works, drilling and excavation).</li> <li>Treatment of contaminated sites.</li> <li>Establishment of ancillary facilities (excluding demolition), including construction of ancillary facility access roads and providing facility utilities.</li> <li>Operation of ancillary facilities that have minimal impact on the environment and community.</li> <li>Minor clearing and relocation of vegetation (including native).</li> <li>Installation of mitigation measures, including erosion and sediment controls, temporary exclusion fencing for sensitive areas and acoustic treatments.</li> <li>Property acquisition adjustment works, including installation of property fencing and utility relocation and adjustments to properties.</li> <li>Utility relocation and connections.</li> <li>Maintenance of existing buildings and structures.</li> <li>Archaeological testing under the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010) or archaeological monitoring undertaken in association with other Minor Works to ensure there is no impact on heritage items.</li> <li>Any other activities that have minimal environmental impact, including construction of minor access roads, temporary relocation of pedestrian and cycle paths and the provision of property access.</li> </ol>
<b>Planning Authority Determination:</b>	<i>If 'Yes', this completed form must be endorsed by an Environmental Representative, approved by TfNSW and submitted to the applicable planning authority to determine</i>

<p>Will the proposed works affect or have the potential to affect heritage items, threatened species, populations or endangered ecological communities?</p>	<p><i>that the works are not defined as 'construction'.</i></p> <p>No – it is anticipated that there will be no impacts associated with the works that will affect heritage items, areas of known or expected archaeological potential, threatened species, populations or threatened ecological communities. Please see Appendix 1 for the location of the works in relation to known sensitivities. In addition, Metron T2M will implement the Sydney Metro Unexpected Finds Procedure V2.0 throughout the investigation works.</p>
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**Part 2: Details**

<p><b>Describe the proposed Minor Works:</b></p> <p>Including work methodologies, site location(s) and site description(s) (e.g. landscape type, waterways, etc.).</p>	<p><b>Site Description Overview</b></p> <p>This overview is based on information from the Environmental Impact Statement (EIS) and Submissions and Preferred Infrastructure Report (SPIR).</p> <p>Survey works are to occur within and surrounding the T3 Bankstown Line. The T3 Bankstown Line is comprised of stations, overbridges, overhead wiring structures, track, services and ballast, extending from Sydenham Station to Bankstown Station.</p> <p>The T3 line runs adjacent to a number of land zoning types between Sydenham Station and Bankstown Station including industrial, business and community, infrastructure, residential and recreational.</p> <p>Roads cross the T3 line in a number of places, both by overbridges and underpasses. A number of footbridges also cross the T3 line along the length of its alignment. The T3 Line crosses the Cooks River in one location between Sydenham and Bankstown. Other local waterways such as channels, culverts and stormwater systems are present along the alignment.</p> <p>The majority of vegetation in the survey area comprises exotic or planted native species on highly modified landforms. A number of threatened ecological communities, threatened plant species and habitat trees are within the rail corridor and project area. Refer to Appendix 1.</p> <p><b>Description of Works</b></p> <p>Survey and site inspection works are critical to the design development phase and are required early on to inform the design. Without this information, detailed design cannot proceed effectively.</p> <p>The proposed survey works are outlined below. Survey will happen along the entire length of the T3 Bankstown Line, as shown in Appendix 1.</p> <p><b>Utility surveys – pot holes/slit trenches</b></p> <p>There will be three utility survey teams each consisting of machine operator (vacuum truck), operative, utility engineer, surveyor and chainman, and protection officer (PO). Each survey team will access from approved access gates.</p> <ol style="list-style-type: none"> <li>1. At the prework briefing the PO will advise all workers about the limits of the worksite, hazards and controls, safe places and protection arrangements.</li> <li>2. Each team member will have to sign onto the briefing of the PO along with the SWMS before starting work.</li> <li>3. All team members are required to have valid RIW card and PPE suitable for the rail corridor (orange rail hi-vis with long sleeves, long pants, hard hat, safety glasses, steel capped boots, gloves).</li> <li>4. Prior to work commencement, all survey locations will be scanned for underground services.</li> <li>5. All work will involve non-destructive digging (using a vacuum truck), hand digging, surveying, measuring, backfilling potholes/slit trenches and taking photographs.</li> <li>6. Excess soils will be assessed for contamination and disposed off-site appropriately according to its nature.</li> <li>7. The PO will accompany the survey teams at all times.</li> <li>8. All team members to notify and sign off with the PO before leaving site.</li> </ol> <p>Equipment:</p> <ul style="list-style-type: none"> <li>• Vacuum truck;</li> <li>• Hand digging equipment (Shovels, crowbar, trowels etc.);</li> <li>• Plate compactor;</li> <li>• Surveying equipment; and</li> <li>• Service locating equipment.</li> </ul>
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#### Ground investigations - test pit (excavator dug) + DCP

There will be one team undertaking these works. The team will consist of one PO, a number of labourers, track certifier, machine operator(s), geotechnical engineer and T2M supervisor.

1. Prior to drilling commencement, all test-pit locations will be scanned for underground services;
2. Following preliminary non-destructive digging, the test locations will either be excavated using a bucket or auger drilled using a 300 mm pendulum auger attached to an excavator to a depth up to 3m or prior refusal on weathered bedrock. The auger drilling will be completed slowly to ensure that changes in stratigraphy are observed and cross contamination of materials be avoided;
3. The test pit will be logged in accordance with AS1726-2017 Geotechnical Site Investigations and details of the stratigraphy will be recorded;
4. Disturbed soil samples will be collected for further observations and laboratory testing (if required);
5. The test pits will be measured and logged from safe vantage points;
6. Dynamic cone penetrometer (DCP) testing will be carried out from the ground surface to a depth of about 3m or prior refusal using portable hand equipment;
7. The excavated test pits will be backfilled in layers using excavated spoil and compacted using portable plate compactor; and
8. The excess soils will be assessed for contamination by qualified ADE Environmental Consultant and will be disposed off-site appropriately according to its nature.

Equipment:

- 5T Excavator with auger attachment (track mounted);
- 10000L vacuum truck & tipper truck;
- Surveying equipment;
- Plate compactor; and
- Service locating equipment.

#### Ground investigations - test pit (hand dug) + DCP

There will be two teams undertaking these works. The team will consist of one PO, a number of labourers, track certifier, geotechnical engineer and T2M supervisor.

1. Prior to excavation, the test pit locations will be scanned for underground services;
2. The test locations will be marked and hand dug using handheld equipment such as shovels, crowbars and trowels to a maximum depth of 1.5m or prior refusal;
3. The test pit will be logged in accordance with AS1726-2017 Geotechnical Site Investigations and details of the stratigraphy will be recorded;
4. Disturbed soil samples will be collected for further observations and laboratory testing (if required);
5. The test pits will be measured and logged from safe vantage points;
6. Dynamic Cone Penetrometer (DCP) testing will be carried out from the ground surface using portable hand equipment;
7. The excavated test pits will be backfilled in layers using excavated spoil and compacted using portable plate compactor; and
8. The excess spoil soils will be assessed for contamination by qualified ADE Environmental Consultant and will be disposed off-site appropriately according to its nature.

Equipment:

- Hand digging equipment (Shovels, crowbar, trowels etc.);
- Plate compactor;
- Surveying equipment; and
- Service locating equipment.

#### Ground investigations - cored boreholes (shallow/deep with standard penetration test (SPT))

The two cored borehole crews shall consist of a PO, track certifier, driller, drillers offsider and geotechnical engineer, T2M supervisor and surveyor.

1. Prior to drilling commencement, all the borehole locations will be scanned for underground services and Non-Destructive Digging (NDD) holes will be carried out;
2. The drill rig with rubber track will be transported by truck to the corridor access point nearest to the investigation site. The rig will be unloaded and will be tracked to the

	<p>borehole location under supervision of ADE field engineer and PO. No high-rail movement is envisaged, where required, tracking mats will be used to avoid ground disturbance and track formation;</p> <ol style="list-style-type: none"> <li>3. Establishment of drill rig at approved site investigation location;</li> <li>4. Non-core vertical auguring of soil profile including logging, regular SPT in-situ testing at 1.5m intervals, and undisturbed sample collection (U50 or U75) where required;</li> <li>5. Core drill in rock (HQ) by diamond core drilling to at least 3m into Class III bedrock, the cores will be stored in core boxes, photographed, logged, Point Load Strength tests will be carried out at 1m intervals;</li> <li>6. Selected length of cores will be sent for laboratory Rock UCS testing;</li> <li>7. The core boxes will be loaded on to the support vehicle and transported to the ADE soil/rock testing laboratory for further observations and testing;</li> <li>8. Drilling fluid/water will be collected into portable tank and disposed off-site appropriately;</li> <li>9. On completion, all the boreholes will be reinstated using quick set grout; and</li> <li>10. The excess spoil soils will be assessed for contamination by qualified ADE Environmental Consultant and will be disposed off-site appropriately.</li> </ol> <p>Equipment:</p> <ul style="list-style-type: none"> <li>• Comacchio 205 Drilling Rig (non hi-rail tracked);</li> <li>• 10000L Vacuum truck &amp; 2 tonne tipper;</li> <li>• Surveying equipment; and</li> <li>• Service locating equipment.</li> </ul> <p><b>Working Hours</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="5">Week 18 (4/11/19 - 8/11/19)</th> </tr> <tr> <th></th> <th>Standard</th> <th>Day OOHW</th> <th>Evening OOHW</th> <th>Night OOHW</th> </tr> </thead> <tbody> <tr> <td>Test pit + DCP</td> <td>n/a</td> <td>n/a</td> <td>n/a</td> <td>n/a</td> </tr> <tr> <td>Core borehole</td> <td>07.00-18.00</td> <td>n/a</td> <td>n/a</td> <td>n/a</td> </tr> <tr> <td>Pot hole</td> <td>07.00-18.00</td> <td>n/a</td> <td>n/a</td> <td>n/a</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="5">Weekend 19 (9/11/19 - 10/11/19)</th> </tr> <tr> <th></th> <th>Standard</th> <th>Day OOHW</th> <th>Evening OOHW</th> <th>Night OOHW</th> </tr> </thead> <tbody> <tr> <td>Test pit + DCP</td> <td>08.00-18.00</td> <td>08.00-18.00</td> <td>n/a</td> <td>n/a</td> </tr> <tr> <td>Core borehole</td> <td>08.00-18.00</td> <td>08.00-18.00</td> <td>n/a</td> <td>n/a</td> </tr> <tr> <td>Pot hole</td> <td>n/a</td> <td>n/a</td> <td>n/a</td> <td>n/a</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="5">Week 19 (11/11/19 - 15/11/19)</th> </tr> <tr> <th></th> <th>Standard</th> <th>Day OOHW</th> <th>Evening OOHW</th> <th>Night OOHW</th> </tr> </thead> <tbody> <tr> <td>Test pit + DCP</td> <td>n/a</td> <td>n/a</td> <td>n/a</td> <td>n/a</td> </tr> <tr> <td>Core borehole</td> <td>07.00-18.00</td> <td>n/a</td> <td>n/a</td> <td>n/a</td> </tr> <tr> <td>Pot hole</td> <td>07.00-18.00</td> <td>n/a</td> <td>n/a</td> <td>n/a</td> </tr> </tbody> </table> <p>Work outside of standard working hours would be managed under an Out of Hours Works Approval and in accordance with the Sydney Metro City &amp; Southwest Out of Hours Work Protocol</p>	Week 18 (4/11/19 - 8/11/19)						Standard	Day OOHW	Evening OOHW	Night OOHW	Test pit + DCP	n/a	n/a	n/a	n/a	Core borehole	07.00-18.00	n/a	n/a	n/a	Pot hole	07.00-18.00	n/a	n/a	n/a	Weekend 19 (9/11/19 - 10/11/19)						Standard	Day OOHW	Evening OOHW	Night OOHW	Test pit + DCP	08.00-18.00	08.00-18.00	n/a	n/a	Core borehole	08.00-18.00	08.00-18.00	n/a	n/a	Pot hole	n/a	n/a	n/a	n/a	Week 19 (11/11/19 - 15/11/19)						Standard	Day OOHW	Evening OOHW	Night OOHW	Test pit + DCP	n/a	n/a	n/a	n/a	Core borehole	07.00-18.00	n/a	n/a	n/a	Pot hole	07.00-18.00	n/a	n/a	n/a
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<b>Planned Commencement Date:</b>	The survey works are targeted to commence from Monday 04 November 2019.																																																																											
<b>Local Sensitivities:</b> Describe the presence (if any) of local sensitive environmental areas and community receptors	<p><b>T3 Line between Sydenham Station and Bankstown Station</b></p> <ul style="list-style-type: none"> <li>• There are a number of residential properties located within close proximity to the corridor as identified in Appendix 1. Noise and air quality impacts from survey works are expected to be negligible.</li> <li>• There is a potential risk of contamination within the investigation area, with potential contamination sources being historical rail activities, and commercial</li> </ul>																																																																											

TS  
15/11/19 Date of proposed activities revised as per email appended following determination page.

	<p>and residential land use in surrounding areas. Potential contaminants include:</p> <ul style="list-style-type: none"> <li>○ Asbestos</li> <li>○ Hydrocarbons</li> <li>○ Heavy metals</li> <li>○ Solvents</li> <li>○ Herbicides.</li> </ul> <p>The extent of ground disturbance is limited for the proposed invasive ground investigations. Contractors will follow good working practices and implement an unexpected finds procedure to mitigate the risk of encountering significant contamination.</p> <ul style="list-style-type: none"> <li>• No invasive survey works will occur within designated heritage areas (Appendix 1) precluding the potential for an impact. Works will be undertaken in accordance with the Sydney Metro City and Southwest Unexpected Finds Procedure V2.0 for heritage.</li> <li>• A number of areas of threatened ecological communities and threatened plant species (<i>Acacia pubescens</i>) have been identified along the rail corridor. These areas are shown in Appendix 1. No invasive works will occur within these areas. Survey locations will be located on grassed areas and unvegetated land to preclude the requirement for trimming, removal or impact to other vegetation by the works.</li> <li>• Works within public footpaths would be required for a number of the investigation locations, as shown in Appendix 1. Investigation work that impact footpaths will be carried out under a council-approved traffic control plan (TCP), using a traffic control team to manage pedestrian flow. Controls will be implemented in accordance with the TCP. Road occupancy licences (ROL) and road opening permits (ROP) will be sought from council for the drop-off/collection of site investigation plant. Controls will be implemented in accordance with the ROL/ROP.</li> <li>• Council approval is being sought for all investigative works located within public areas.</li> </ul>
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### Part 3: Environmental Risk Assessment and Management

Prepare an Environmental Risk Assessment (in accordance with the [Sydney Metro Risk Management Standard](#)) and an Environmental Control Map for the proposed Minor Works and attach as Appendix 1.

If an Environmental Risk Assessment and/or an Environmental Control Map for the proposed Minor Works is/are already contained in existing documentation, attach the relevant section(s) as Appendix 1.

**Documentation:**

List any existing documents (including those referenced above) that the proposed Minor Works will be undertaken in accordance with and attach as Appendix 2 (e.g. plans, procedures, etc.).

Maps showing the local sensitivities discussed in Part 2 will be provided to the survey teams to ensure impacts are avoided. The maps are provided in Appendix 1.

The mitigation measures developed as part of the environmental risk assessment (provided in Appendix 1) will be provided to survey teams as part of the pre-survey induction.

Works will be undertaken in accordance with each contractor’s unexpected finds contamination procedures and the Sydney Metro City and Southwest Unexpected Finds Procedure V2.0 for heritage.

### Part 4: Workforce Notification

**How will the environmental and community risks and associated mitigation measures of the proposed Minor Works be communicated to the contractor’s workforce?**

A site induction will be provided to all personnel working on the project site. The induction will include relevant environmental aspects and risks associated with works on the project site.

**Part 5: Community Consultation**

<p><b>What community consultation has been undertaken already?</b></p>	<p>The Sydney Metro Sydenham to Bankstown monthly notifications for November 2019 include reference to all of the activities proposed (included in Appendix 3). The notifications were distributed to all properties within 200m of the corridor on 04 October 2019.</p> <p>Approval is being sought from Canterbury Bankstown Council and Inner West Council for investigations that fall outside of the rail corridor. Metron T2M will present to the councils on the scope of the work to gain their approval.</p>
<p><b>What community consultation is planned to be undertaken?</b></p>	<p>Reminder notifications will be sent out in early November 2019</p>
<p>If drafted already, attach applicable Community Notification as Appendix 3.</p>	


**Part 6: Contact Details**

Nominate contractor's project manager, environmental and communications contact(s).

<p><b>Name:</b></p>	<p>Luke Palmer</p>	<p><b>Position:</b></p>	<p>Project Manager</p>	<p><b>Phone:</b></p>	<p>██████████</p>
	<p>Jonny Steele</p>		<p>Environmental Manager</p>		<p>██████████</p>
	<p>Sushane Perera</p>		<p>Communications Manager</p>		<p>██████████</p>

**Part 7: Signature**

This signature acknowledges that the proposed Minor Works will be undertaken in accordance with this application, have minimal environmental impact and are not defined as 'construction' in accordance with the applicable planning approval.



<p><b>Name:</b></p>	<p>Jonny Steele</p>		
<p><b>Signature:</b></p>		<p><b>Date:</b></p>	<p>29/10/2019</p>

## Determination Page

(TfNSW/Environmental Representative Use Only)

### 12. Endorsement/Approval

These signatures represent formal endorsement/approval for the proposed Minor Works to commence in accordance with this application and the applicable planning approval requirements (subject to any determination from the applicable planning authority as may be required by the planning approval conditions).

	TfNSW Principal Manager, Communication & Engagement – Endorsement (required for all applications)	TfNSW Principal Manager, Sustainability, Environment & Planning – Approval (required for all applications)	Environmental Representative – Endorsement (required as necessary in accordance with the applicable planning approval, optional for all other circumstances)
Signature:			
Name:	May Li Foong	FIL CERONE	
Date:	30/10/19	31/10/19	
Comments:	—		Supporting letter attached as Appendix 4 if necessary.
Conditions:	—		Supporting letter attached as Appendix 4 if necessary.
<input checked="" type="checkbox"/> Approved (by TfNSW)			
<input type="checkbox"/> Endorsed (by Environmental Representative)			
<input type="checkbox"/> Rejected			

## Tim Solomon

**From:** Steele, Jonathan S <Jonathan.Steele@mottmac.com>  
**Sent:** Thursday, 14 November 2019 6:02 PM  
**To:** Tim Solomon  
**Cc:** Martin, Sean  
**Subject:** SMDS: PCMW3.2  
**Attachments:** SMDS-PCMW-03.2 - TfNSW Approval.pdf

Hi Tim

As discussed, the borehole shown in the figure below cannot be completed this week as planned because we are waiting for agreement from Optus. We propose that the investigation will be carried out during standard working hours over the coming weeks, depending on receiving approval from Optus. We cannot be more specific on the date at this time, but will inform you of the exact timing of the investigation when it has been finalised. Would it be possible to extend the period to do the work for two weeks, which should be sufficient to cover the investigation?



Kind regards

Jonny

**Jonny Steele**



MSc BSc (Hons) MIEMA CEnv  
Senior Environmental Consultant

D + [REDACTED]

T + [REDACTED]

M + [REDACTED]

F + [REDACTED]

jonathan.steele@mottmac.com

**METRON T2M**  
TRAINS TO METRO.  
AN EFFECTIVE  
TRANSFORMATION

A Joint venture of



Principal sub-consultants

**DesignInc**

## Appendix 1: Environmental Risk Assessment and Environmental Sensitivities Maps.

### Environmental Risk Assessment

The Risk Assessment has been undertaken in accordance with the requirements of the Sydney Metro Risk Management Standard.

Aspect	Potential environmental impact	Initial risk rating			Control measures	Residual risk rating		
		Consequence	Likelihood	Risk		Consequence	Likelihood	Risk
<b>Air quality and noise emissions</b>	Noise and air quality impacts on nearby sensitive receivers.	6	5	Low	<ul style="list-style-type: none"> <li>Site equipment is to be turned off when not in use</li> <li>Stockpiles are to be covered during windy weather</li> <li>Visual observation of dust emissions will trigger dust suppression mitigation strategies, including wetting of the excavation area</li> <li>Induction and pre-start briefing to include noise mitigation and "good neighbour" approach</li> <li>Follow the appropriate approval process and submit OOHV applications for Environmental Representative approval.</li> <li>Mitigation measures to be implemented in accordance with the Sydney Metro City &amp; Southwest Construction Noise and Vibration Strategy (CNVS), including appropriate notification.</li> </ul>	6	6	Low
<b>Mobilisation of contamination</b>	Local contamination and health risk to surveyors	5	4	Low	<ul style="list-style-type: none"> <li>Surveyors will be vigilant for hazardous materials</li> </ul>	6	4	Low

Aspect	Potential environmental impact	Initial risk rating			Control measures	Residual risk rating		
					that may be uncovered during investigations <ul style="list-style-type: none"> <li>Surveyors will follow their organisations' unexpected finds procedure in case of discovery of hazardous material during invasive activities</li> <li>No refuelling will occur in the work area</li> <li>Spill kits will be kept near to work areas at all times and trained staff present in case of a spill</li> </ul>			
<b>Work in heritage areas</b>	No impact to heritage will occur because all invasive works will avoid designated heritage areas	6	6	Low	<ul style="list-style-type: none"> <li>Environmental sensitivities maps will be provided to surveyors as part of the site induction process to ensure heritage areas are avoided.</li> <li>No invasive work will occur with designated heritage areas</li> <li>Works will be undertaken in accordance with the Sydney Metro City and Southwest Unexpected Finds Procedure V2.0 for heritage.</li> </ul>	6	6	Low
<b>Work in biodiversity areas</b>	No impact to biodiversity. Invasive works will avoid designated biodiversity areas. Investigation sites would be restricted to grass areas and unvegetated land.	6	6	Low	<ul style="list-style-type: none"> <li>Environmental sensitivities maps will be provided to surveyors as part of the site induction process to ensure biodiversity areas are avoided</li> <li>Survey locations will be moved to grassed areas and unvegetated land to preclude the requirement for trimming, removal or impact to other vegetation</li> </ul>	6	6	Low

Aspect	Potential environmental impact	Initial risk rating			Control measures	Residual risk rating		
					by the works.			
<b>Erosion and sedimentation control</b>	Runoff of excavated materials into the local stormwater system. Potential for escape of contaminated materials causing local contamination.	5	4	Low	Stockpiled material will be stored outwith drainage channels and covered during inclement weather	6	5	Low
<b>Transport and access</b>	Negative impact to local roads, parking and footpaths from closures or obstructions during survey work.	5	5	Low	<ul style="list-style-type: none"> <li>• Surveyors will park within the rail corridor where possible.</li> <li>• Surveyors will minimise the number of vehicles used to travel to the site.</li> <li>• Surveyors will not block roadways or pathways</li> <li>• Surveyors will park legally and observe restrictions at all times</li> <li>• No investigation work will take place within roadways</li> <li>• Investigation work that impacts footpaths will be carried out under a council-approved traffic control plan (TCP), using a traffic control team to manage pedestrian flow. Controls will be implemented in accordance with the TCP.</li> <li>• Road occupancy licences (ROL) and road opening permits (ROP) will be sought from council for the drop-off/collection of site investigation plant. Controls will be implemented in accordance with the ROL/ROP.</li> <li>• The community would be</li> </ul>	5	6	Low

Aspect	Potential environmental impact	Initial risk rating			Control measures	Residual risk rating		
					notified of all planned footpath closures <ul style="list-style-type: none"> <li>Surveyors will be inducted on the required control measures that must be implemented</li> </ul>			
<b>Service strike</b>	Damage to services during excavation which cause an environmental incident	5	4	Low	Prior to any ground disturbance works, a service locator will check each excavation site is clear of services and provide a permit to excavate: <ul style="list-style-type: none"> <li>Service locator and surveyor will check all excavation locations with DSS and locating equipment to identify areas clear of services</li> <li>Where there is a clash of services and proposed excavation site the excavation site will be moved to a services-free area</li> <li>Excavation area will be sprayed with spray paint by service locator once confirmed clear, approx. 1m square section</li> </ul>	6	5	Low
<b>Waste</b>	Improper management of waste could result in an environmental incident	5	4	Low	The following measures would be implemented: <ul style="list-style-type: none"> <li>Induction of staff will include waste management practices.</li> <li>Non-liquid excess soil and wastes will be bagged and removed from site.</li> <li>Liquid wastes will be collected during works in a mud tank prior to disposal at a licenced</li> </ul>	6	5	Low

Aspect	Potential environmental impact	Initial risk rating			Control measures	Residual risk rating		
					facility <ul style="list-style-type: none"> <li>Excess soil and wastes will be tested in accordance with the Waste Classification Guidelines (NSW EPA, 2014) prior to disposal.</li> <li>Wastes will be lawfully transported and disposed of at an appropriate licenced facility.</li> </ul>			

## Environmental Sensitivities Maps















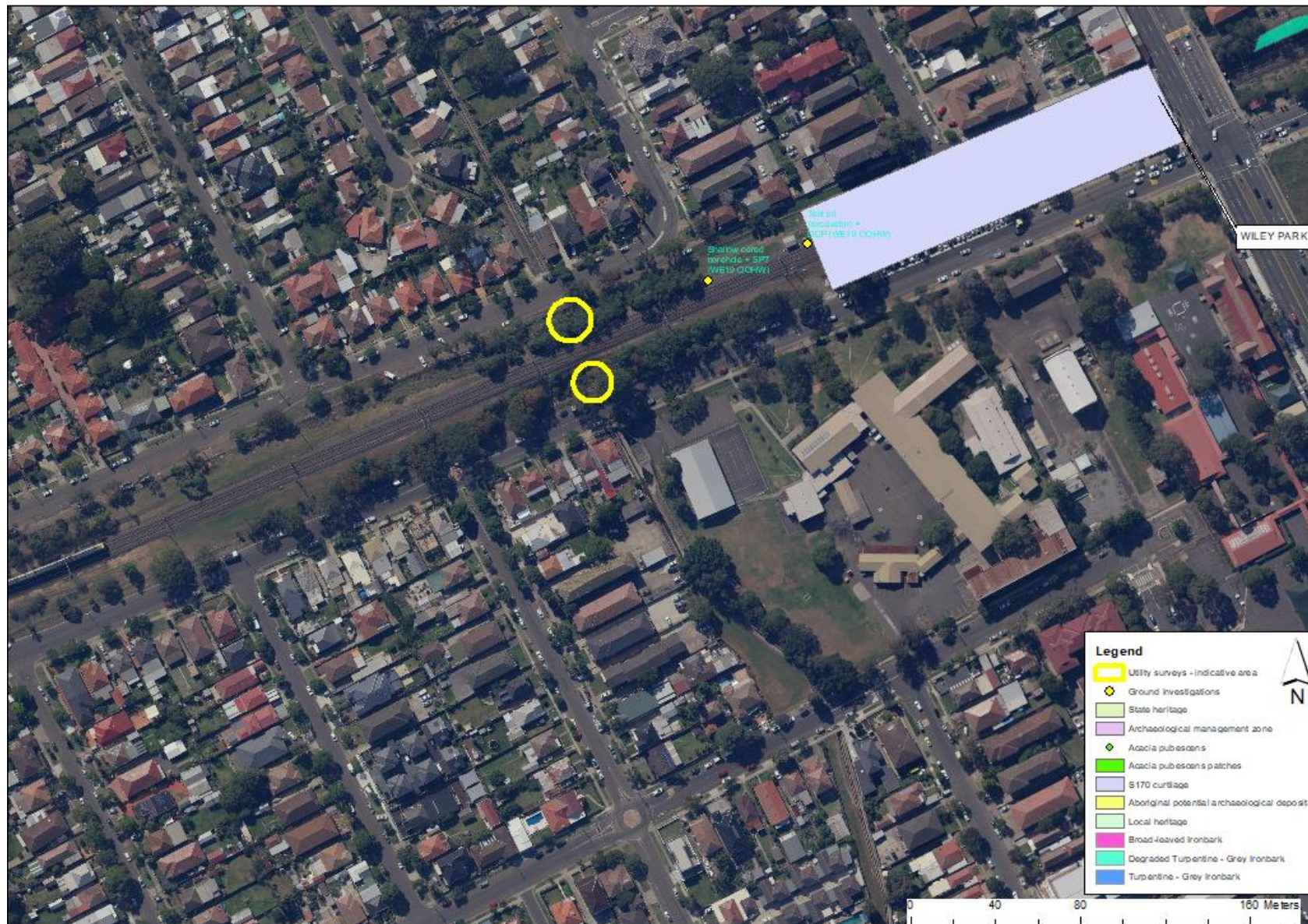
















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## Appendix 2: Environmental Management Documentation.

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## Appendix 3: Community Notification.

Sydney Metro is Australia’s biggest public transport project.

Services started in May 2019 in the city’s North West with a train every four minutes in the peak. Metro rail will be extended into the CBD and beyond to Bankstown in 2024. There will be new CBD metro railway stations underground at Martin Place, Pitt Street and Barangaroo and new metro platforms under Central.

In 2024, Sydney will have 31 metro railway stations and a 66 km standalone metro railway system – the biggest urban rail project in Australian history. There will be ultimate capacity for a metro train every two minutes in each direction under the Sydney city centre.

The upgrade of the T3 Bankstown Line to metro standards received planning approval on 19 December 2018.

## Bankstown Line metro upgrade

In October and November, construction will continue between Sydenham and Campsie stations (weather and site conditions permitting). Rail access gates along the corridor from Fraser Park to Campsie will be used for all activities including delivery and removal of plant, equipment and materials.

Day work	
Project standard working hours are Monday to Friday 7am - 6pm and Saturday 8am - 6pm.	
Location	Detail
<b>Whole rail corridor (Sydenham – Campsie)</b>	<ul style="list-style-type: none"> <li>• Activities within the rail corridor (unless specified) will include:               <ul style="list-style-type: none"> <li>○ Topographical surveys, non-invasive site investigations and soil resistivity testing throughout rail corridor and in nearby public areas</li> <li>○ Locating and confirming underground services which will involve using handheld equipment and non-destructive digging</li> <li>○ Geotechnical investigations which will include minor drilling and testing the ground</li> <li>○ Site establishment work including site preparation and installation of haul roads and temporary fencing through the rail corridor</li> <li>○ Installation of temporary site facilities in the rail corridor located at Canterbury</li> <li>○ Minor de-vegetation throughout the corridor where required</li> <li>○ Installation of cable routes including galvanised steel trough (GST) and ground level trough (GLT)</li> <li>○ Spoil and waste removal from Randall Street and Kays Avenue, Marrickville; and Ewart Street, Dulwich Hill</li> <li>○ Installation of security fencing</li> </ul> </li> <li>• Equipment used for the above work will include vacuum suction trucks, mulcher, drilling rig, dump trucks, excavators, crane trucks, lifting machinery, elevated work platform, forklift, water cart and power and hand tools.</li> <li>• Access to buildings and driveways will be maintained at all times. Some of this work may be noisy, however we will take every possible step to minimise noise such as switching off equipment when not in use and installing non-tonal reversing beepers on vehicles.</li> </ul>
<b>Dulwich Hill, Canterbury, Campsie</b>	<ul style="list-style-type: none"> <li>• Surface and ground water testing to obtain information on ground conditions for new power substations (see map overleaf for locations).</li> <li>• Equipment will include ground water testing equipment, cameras and hand held tools.</li> </ul>



## Out-of-hours work

Due to the nature of some activities and for the safety of workers, some work will occur outside standard construction hours when trains are not running. Some equipment will also be delivered outside standard construction hours in line with RMS requirements for transporting oversized vehicles.

Date/Time	Location	Work
<p><b><u>Weeknights outside train operation hours</u></b></p> <p><b>Between 12.30am and 4am Monday to Friday:</b></p> <p>14 to 18 October 2019</p> <p>21 to 25 October 2019</p> <p><b>Between 10.30pm and 4am Monday to Friday:</b></p> <p>28 October to 1 November 2019</p> <p><b><u>During a scheduled rail shutdown weekend</u></b></p> <p>Between <b>2am Saturday 9 November</b> and <b>2am Monday 11 November 2019</b></p>	<p><b>Between Sydenham and Campsie</b></p>	<ul style="list-style-type: none"> <li>Activities will include:           <ul style="list-style-type: none"> <li>Topographical surveys, non-invasive site investigations and soil resistivity testing throughout rail corridor and in nearby public areas</li> <li>Locating and confirming underground services which will involve using handheld equipment and non-destructive digging</li> <li>Geotechnical site investigations which will include minor drilling and testing the ground</li> </ul> </li> <li>Equipment used for the above work will include vacuum suction trucks, drilling rigs, excavators, dump trucks, topographical survey equipment, power and hand tools.</li> </ul>

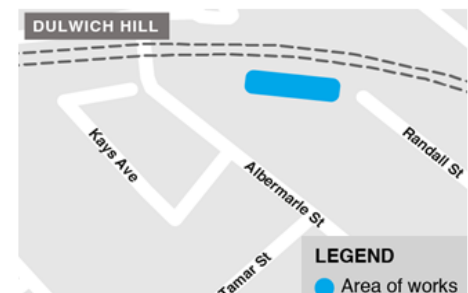
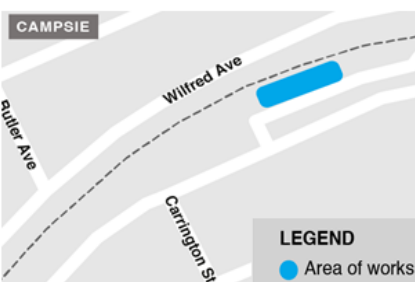
## Keeping you informed

Properties close to the rail corridor will receive notifications when work is scheduled to occur. Sydney Trains will deliver notifications for work done during scheduled rail maintenance periods and Sydney Metro will keep you informed of all other work. If you'd prefer to receive updates by email, please contact us using the details below.

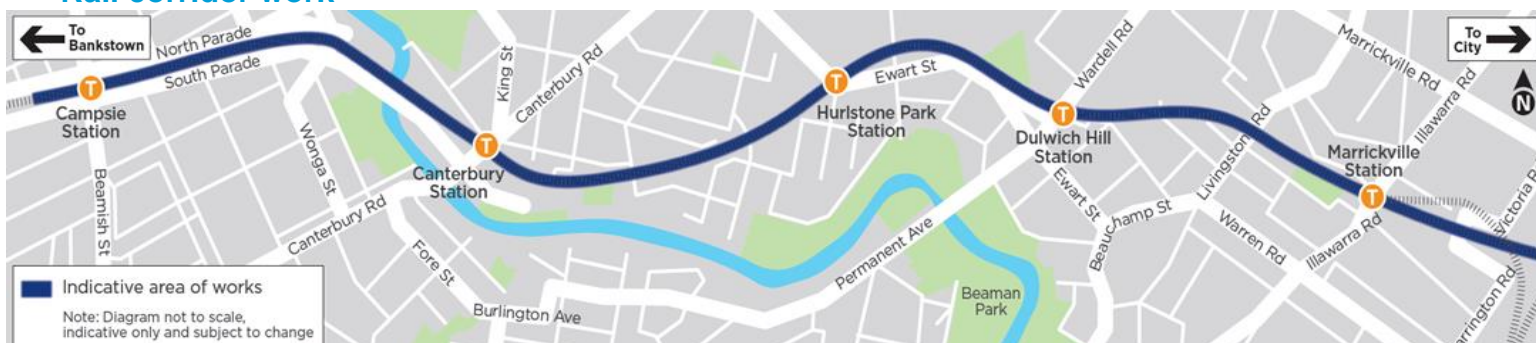
**Thank you for your cooperation while we complete this essential work.** If you have any questions please contact **Melanie** on **1800 171 386** (24 hour community information line) or e-mail

[SouthwestMetro@transport.nsw.gov.au](mailto:SouthwestMetro@transport.nsw.gov.au)

## New substation locations



## Rail corridor work





Sydney Metro is Australia’s biggest public transport project.

Services started in May 2019 in the city’s North West with a train every four minutes in the peak. Metro rail will be extended into the CBD and beyond to Bankstown in 2024. There will be new CBD metro railway stations underground at Martin Place, Pitt Street and Barangaroo and new metro platforms under Central.

In 2024, Sydney will have 31 metro railway stations and a 66 km standalone metro railway system – the biggest urban rail project in Australian history. There will be ultimate capacity for a metro train every two minutes in each direction under the Sydney city centre.

The upgrade of the T3 Bankstown Line to metro standards received planning approval on 19 December 2018.

## Bankstown Line metro upgrade

In October and November, early work will continue along the Bankstown Line between Belmore and Bankstown stations (weather and site conditions permitting). For all works, access to the rail corridor will be via existing rail corridor and pedestrian access gates.

Day work		
Work will be carried out during standard construction hours Monday to Friday 7am - 6pm and Saturday 8am - 1pm.		
Location	Detail	
<b>Whole rail corridor (Belmore – Bankstown)</b>	<p>Activities will include:</p> <ul style="list-style-type: none"> <li>• Topographical surveys, non-invasive site investigations and soil resistivity testing throughout rail corridor and in nearby public areas</li> <li>• Locating and confirming underground services which will involve using handheld equipment and non-destructive digging</li> <li>• Geotechnical site investigations which will include minor drilling and testing the ground</li> </ul> <p>Equipment used for the above work may include vacuum suction trucks, drilling rigs, topographical survey equipment, excavators, dump trucks, power and hand tools.</p>	
<b>Lakemba Punchbowl</b>	<ul style="list-style-type: none"> <li>• Surface and ground water testing to obtain information on ground conditions for new power substations (see map overleaf for locations).</li> <li>• Equipment will include ground water testing equipment, cameras and hand held tools.</li> </ul>	
Out-of-hours work		
Due to the nature of some activities and for the safety of workers, some work will occur outside standard construction hours when trains are not running. Some equipment will also be delivered outside standard construction hours in line with RMS requirements for transporting oversized vehicles.		
Date/Time	Location	Detail
<p><b><u>Weeknights outside train operation hours</u></b></p> <p><b>Between 12.30am and 4am Monday to Friday:</b></p>	<p><b>Between Belmore and Bankstown</b></p>	<ul style="list-style-type: none"> <li>• Activities will include: <ul style="list-style-type: none"> <li>○ Topographical surveys, non-invasive site investigations and soil resistivity testing throughout rail corridor and in nearby public areas</li> </ul> </li> </ul>



<p>14 to 18 October 2019 21 to 25 October 2019</p> <p><b>Between 10.30pm and 4am Monday to Friday:</b></p> <p>28 October to 1 November 2019</p> <p><b><u>During a scheduled rail shutdown weekend</u></b></p> <p>Between <b>2am Saturday 9 November</b> and <b>2am Monday 11 November 2019</b></p>		<ul style="list-style-type: none"> <li>○ Locating and confirming underground services which will involve using handheld equipment and non-destructive digging</li> <li>○ Geotechnical site investigations which will include minor drilling and testing the ground</li> </ul> <ul style="list-style-type: none"> <li>● Equipment used for the above work will include vacuum suction trucks, drilling rigs, excavators, dump trucks, topographical survey equipment, power and hand tools.</li> </ul>
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### Keeping you informed

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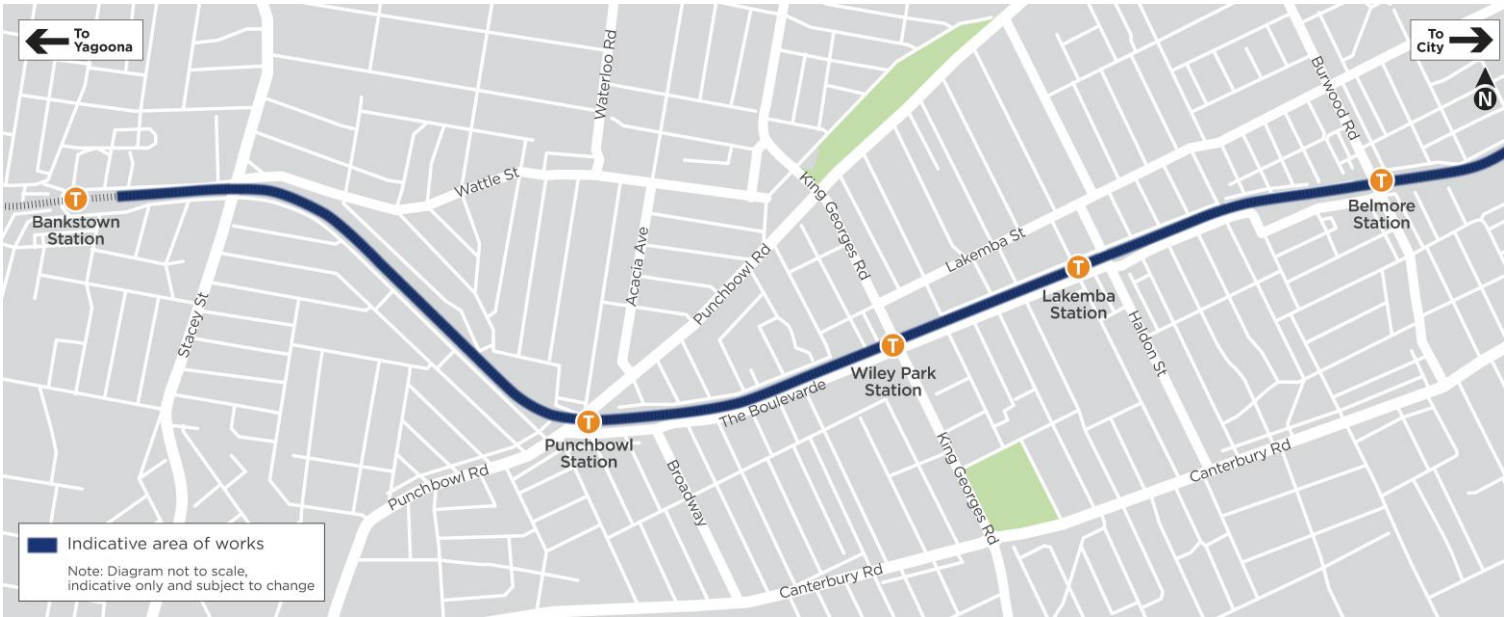
**Thank you for your cooperation while we complete this essential work.**

If you have any questions about the rail corridor work, please contact **Melanie** on **1800 171 386** (24 hour community information line) or email [SouthwestMetro@transport.nsw.gov.au](mailto:SouthwestMetro@transport.nsw.gov.au)

### New substation locations



### Rail corridor work



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## **Appendix 4: Environmental Representative Supporting Letter.**