

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	
Contractor:	Laing O'Rourke
Project:	Sydney Metro City and Southwest - Northern Corridor Works Project
Application Title: (e.g. Smith St trenching works)	Week-End 19 and Mid-Week 19/20 Site Survey and Investigation Works – Portion 7a
Application Number:	NCW-005
Application Date:	Revision 5 – 31 st October 2017
Planning Approval:	SSI 15_7400
 Minor Works Categories: Highlight as applicable. If Items 4, 8 or 11 are applicable, this form must be endorsed by an Environmental Representati ve. 	 Survey, survey facilitation and investigations works (including road and building dilapidation survey works, drilling and excavation). Treatment of contaminated sites. Establishment of ancillary facilities (excluding demolition), including construction of ancillary facility access roads and providing facility utilities. Operation of ancillary facilities that have minimal impact on the environment and community. Minor clearing and relocation of vegetation (including native). Installation of mitigation measures, including erosion and sediment controls, temporary exclusion fencing for sensitive areas and acoustic treatments. Property acquisition adjustment works, including installation of property fencing and utility relocation and adjustments to properties. Utility relocation and connections. Maintenance of existing buildings and structures. 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. 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.
Planning Authority Determination: Will the proposed works affect or have the potential to affect heritage items, threatened species, populations or endangered ecological communities?	No. The proposed works do not have potential to impact on heritage items, threatened species, populations or endangered ecological communities.



Part 2: Details							
	The scope of work is to be carried out in the rail corridor between the south of Chatswood Station and to the north of Artarmon Station (Brand St, Artarmon to Albert Ave, Chatswood Chainages 10.500km to 11.650km:						
	31 trial pits and 23 boreholes will be excavated using drilling rig to take samples of soil to inform geotech investigation reports and design.						
	Works will be conducted during the weekend and out of hours on the following dates. It is expected that approximately 8 Boreholes and 16 trial pits will be completed. These works are located on the down side of the track and require no trains running and high voltage power to be isolated. If these works were to occur during standard construction hours then personnel would be at risk of being struck by trains and electrocution.						
	Saturday, 4 th November 2017:						
Describe the proposed	0600 - 2400						
Minor Works:	Sunday, 5 th November 2017:						
Including work methodologies,	0000 – 2400						
site location(s) and site							
description(s) (e.g. landscape type, waterways, etc.).	Works will be also conducted during normal construction hours as per the following dates. It is expected that the remaining 15 Boreholes and 18 trial pits will be completed. It should be noted these boreholes and trial pits are located on the up side of the track outside of the danger zone and as such can be completed during standard hours.						
	Road occupancy will be required for BH 20, which will be undertaken on Monday 6 th November. Approval has been provided from Willoughby City Council, refer to Appendix 1.						
	Note the traffic control plan has also been included in Appendix 1.						
	Monday 6 th November – Friday 10 th November 2017						
	0700 – 1800						
	Monday 13 th November – Friday 20 th November 2017 0700 – 1800						
Planned Commencement Date:	4 th November 2017						
Local Sensitivities: Describe the presence (if any) of local sensitive environmental areas and community receptors.	<u>Community</u> – Residents on Brand St, Drake St, Hawkins St, Hampden Rd and Hopetoun Ave have direct line of site to the works.						
Part 3: Environmental Risk	Assessment and Management						
	ssessment (in accordance with the Sydney Metro Risk Management Standard) and an e proposed Minor Works and attach as Appendix 1.						
lf an Environmental Risk Assessn	nent and/or an Environmental Control Map for the proposed Minor Works is/are already on, attach the relevant section(s) as Appendix 1.						
Documentation:	- Sydney Metro Construction Environmental Management Framework						
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, procedures, etc.).	 Sydney Metro City and Southwest, Chatswood to Sydenham, Planning approval SSI 15_7400 						



How will the environmental and community risks and associated mitigation measures of the proposed Minor Works be communicated to the contractor's workforce?	All workers will undertake NCW Project specific induction. In addition, there will be a pre-start briefing undertaken by the worksite manager at the start of shift for all work groups. This will detail the environmental and community risks.
Part 5: Community Consult	ation
What community consultation has been undertaken already?	The works will be covered by the notification issued by Sydney Metro.
What community consultation is planned to be undertaken?	Planned: - The works will be covered by the notification issued by Sydney Metro.

If drafted already, attach applicable Community Notification as Appendix 3.

Nominat	e contractor's project man	ager, environmental a	nd communications contact(s).		
	Tony Deacy		Project Manager		0467 762 987
	Chris Standing Michael Lloyd		Environmental Manager		0431 338 578
Name:		Position:	Communications and Stakeholders Manager (Sydney Metro)	Phone:	0466 545 168
This sigr			orks will be undertaken in accor nstruction' in accordance with th		
		Chris Standin	g		
Name:					



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 pli applications)	Environmental Representative – Endorsement (required as necessary in accordance with the applicable planning approval, optional for all other circumstances)
Signature:	Amdreal	A.	
Name:	Elicabeth	FIL CERONE	
Date:	2.10.17	2/11/17	
Comments	: NO Commante		Supporting letter attached as Appendix 4 if necessary.
Conditions			Supporting letter attached as Appendix 4 if necessary.
App	roved (by TfNSW)		
End	orsed (by Environmental Representativ	/e)	
🗍 Reje	ected		12



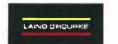
Appendix 1: Environmental Risk Assessment and Environmental Control Map.

Risk Assessment Rankings: >17 = Extreme 10 - 16 = High 5 - 9 = Medium 1 - 4 = Low

Issues or activities that represent an Extreme risk after the application of control measures are not to be undertaken

		Initial	Risk Rat	ting		Resid	lual Risk	Rating
Aspect	Potential Environmental Impact	ΡX	C =	Risk	Control Measures	ΡX	C =	Risk
Approvals and Licensing			*			ļ		
Not identifying appropriate approvals / licenses required or proceeding without them.	Works delayed, infringements, prosecution and reputational loss.	Р	3	М	Planning approval has been granted for the Sydney Metro - Chatswood to Sydenham works (SSD 15_7400).	U	1	L
					This minor works application is being completed to ensure appropriate documentation is completed to management environmental risk of the project.			
					Only investigative works are being undertaken. No permanent construction works are to be completed.			
Noise								
Noise from investigation activities.	Disturbance to residents or neighbouring businesses. Potential for complaints.	Ρ	3	М	Control measures as per Community Consultation Strategy (CCS) are to be implemented. Consult with the community in relation to upcoming activities that may result in concern (completed by Sydney Metro).	U	3	М
					For investigative excavations, use silenced lighting towers and equipment where practical.			
					The team will be made aware of noise monitoring trigger levels and requirements of changing work practices in the unlikely event of noise monitoring indicating noise levels approaching 30 dBA above RBL during evening and night periods. (In an unlikely event, if noise monitoring indicates noise levels are approaching 30dBA above RBL from construction activities, requirements of reducing the			

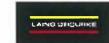
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					number of plant/equipment operating concurrently will be implemented). Any high noise impact works and activities will be in continuous blocks not exceeding 3 hours each with a minimum respite from those activities and works of not less than 1 hour between each block.			
Noise from investigation activities required to be undertaken out of standard working hours.	Disturbance to residents or neighbouring businesses with potential for complaints.	Ρ	3	Μ	Control measures as per Community Consultation Strategy (CCS) are to be implemented. Consult with the community in relation to upcoming activities that may result in concern (completed by Sydney Metro in conjunction with LOR). The team will be made aware of noise monitoring trigger levels and requirements of changing work practices in the unlikely event of noise monitoring indicating noise levels approaching 30 dBA above RBL during evening and night periods. (In an unlikely event, if noise monitoring indicates noise levels are approaching 30dBA above RBL from construction activities, requirements of reducing the number of plant/equipment operating concurrently will be implemented). Any high noise impact works and activities will be in continuous blocks not exceeding 3 hours each with a minimum respite from those activities and works of not less than 1 hour between each block.	U	3	Μ
Vibration								
Vibration intensive activities undertaken on the site in proximity to sensitive heritage structures and community.	Damage to listed heritage items. Disruption, annoyance and nuisance to residents. Potential damage to adjacent residential and commercial residences and structures. Disruption to businesses as a result of vibration nuisance	U	4	Μ	Consult with potentially affected parties prior to commencement of works for any activities that may create vibration impacts caused by the works. No heritage structures within close proximity of proposed minor works. No vibration intensive works to be undertaken.	R	3	М

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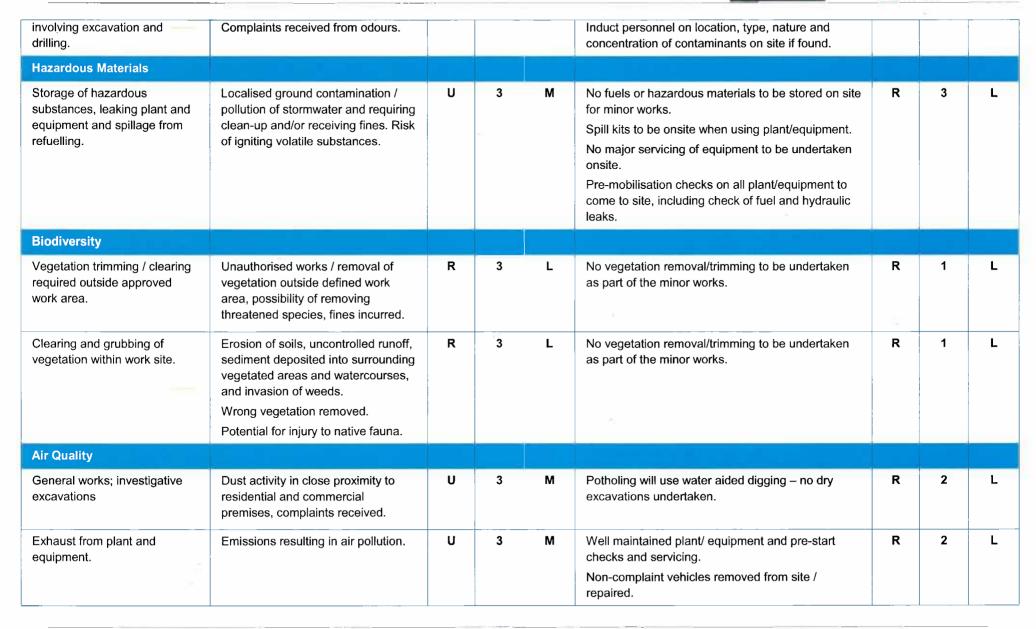
Water Quality, Erosion & Sedin	nentation							
Sediment laden runoff from investigation works leaving site.	Degradation of local watercourses. Increased turbidity in local water ways resulting in impact on aquatic life. Fines for sediment escaping site.	U	3	Μ	Control measures as per Environmental Control Map (ECM). Existing stormwater drainage points and swales will be identified prior to investigative excavation works. Limited excavation work – potholing only and test pits only. All vehicle wheels to be clean prior to exiting site.	R	3	L
Non-compliant water from investigation works discharged from site	Non-compliant water entering stormwater system waterways (i.e. polluting - not compliant with discharge criteria).	Ρ	3	М	No water discharge anticipated for minor works.	U	2	L
Ground water	Ground water entering excavations Without appropriate safeguards onsite could lead to ground water contamination	U	2	L	NSW Licenced driller to be used for the works. Proposed works are investigative only and will not be affecting groundwater table.	R	1	L
Waste								
Waste disposal during works.	Incorrect disposal of waste, further costs incurred for classifications and disposal, fines may be issued.	Ρ	2	М	Potholing contractor to take slurry waste to licenced waste facility only. To be checked prior to shift. Ensure accurate waste records are retained. Removal of wastes from the site would only be undertaken by a licensed contractor as required by the POEO Act and with appropriate approvals, if required, for contaminated materials, etc. All material that requires off-site disposal to be appropriately classified against the Waste Classification Guidelines (DECC, 2008).	R	2	L
Contamination								
Potential for discovery of unexpected contaminated spoil during investigation works	Health effects resulting from airborne contamination, e.g. asbestos.	Ρ	3	M	If contaminated soil is encountered, all works are to stop in the vicinity of the find and investigations commence.	U	2	L

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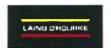


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Heritage								
Unexpected heritage items encountered.	Work delays, additional studies, approvals required, damage to heritage item.	Ρ	3	М	General inductions on heritage management 'stop- works' protocol. If suspected heritage item encountered. Works to stop immediately and Environmental Manager contacted. Label any known heritage items on Environmental Control Maps.	U	2	М
Flora & Fauna								
Removal of flora without approval.	Failure to identify flora prior to removal.	R	3	L	No vegetation removal/trimming to be undertaken as part of the minor works.	R	1	L
Traffic								
Loss of on-street car parking in adjacent residential streets and commercial areas during investigation works.	Loss of parking availability to adjacent residential and commercial properties could result in community complaints.	Ρ	3	М	Community notifications. Site vehicles shall be parked within the rail corridor and not affect public parking area No road/lane closures required.	U	3	L
Management of heavy vehicles / access routes.	Complaints from sensitive receivers due to increased level and frequency of noise.	Ρ	4	М	Deliveries of plant and materials shall be undertaken outside of peak periods where possible Site vehicles shall be parked within the rail corridor and not affect public parking areas Scheduled road movements shall be minimised where possible Oversized deliveries would be undertaken in accordance with the requirements of NSW Police or Roads and Maritime Services. Designated access routes given to contractors/suppliers. Community Notifications. Pedestrian management with traffic controller in place where required.	U	3	L





Truck deliveries out of normal working hours (un-approved). Resources and Energy Use	Noise impact to community / potential complaints.	Ρ	3	M	Induction on approved working hours for deliveries. Communication of delivery times to suppliers. Community Notifications on project activities occurring locally. Approved traffic/access routes. Planning and staging of works in approved hours as much as practical.	U	3	М
Energy consumption by plant and equipment.	Inappropriate energy use, waste of energy recourses, energy wastage costs, increased greenhouse gas emissions.	U	2	L	No idling of plant equipment where possible onsite. Equipment / plant equipment inspections must be undertaken prior to use on site.	R	2	L
Resource usage (e.g. building materials, water, fuels, packaging), waste generation and disposal	Depletion of resources due to wastage (e.g. wastage of water / no recycling, poor management of procurement, ineffective removal of off-cuts, waste, i.e. no recycling).	U	2	L	No materials are required to be imported for these minor works.	U	2	L

For each identified issue, consider the 'maximum credible' (not absolute worst case) risk that could result with **minimal or no controls** other than existing and using normal work practices.

Note: Any one of the listed consequences must result in the use of the applicable consequence grading.



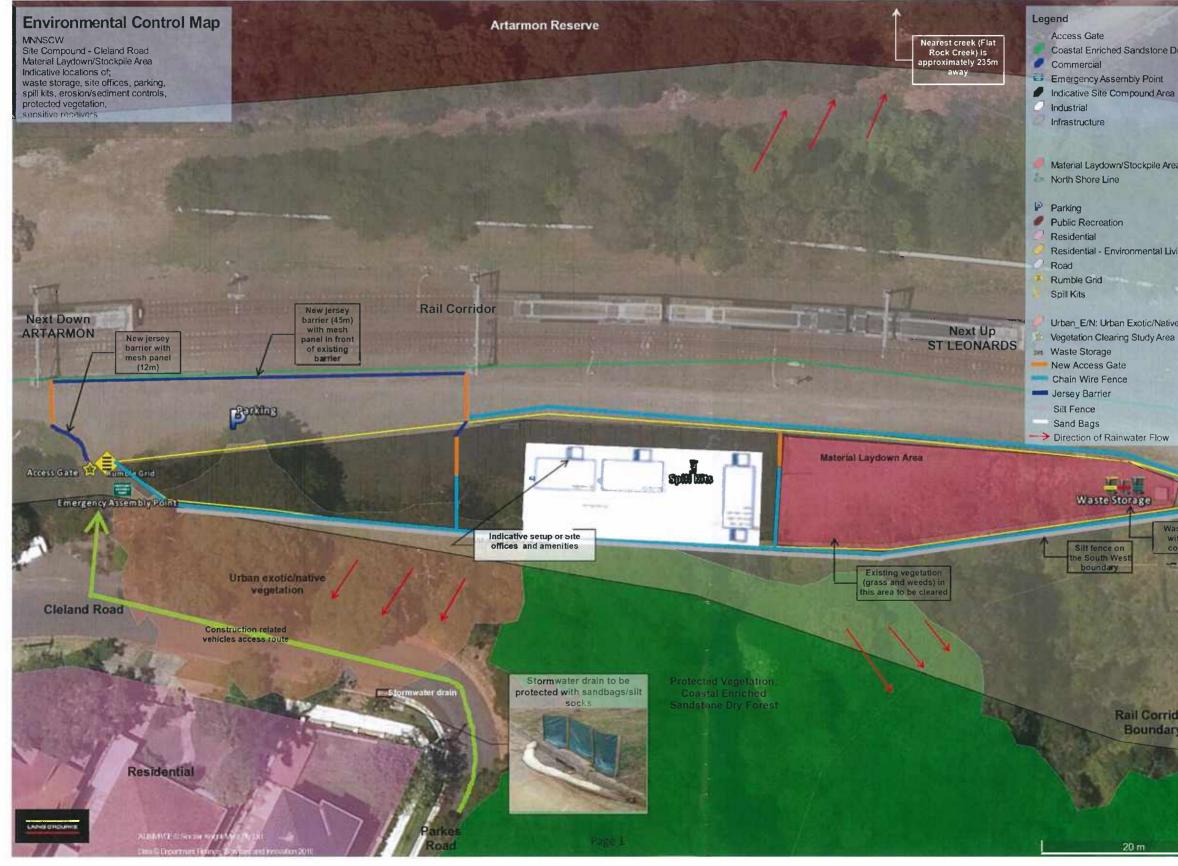
Proba	bilitv:			Consequence:					
5 = Ce	ertain 4 = Lik	ely 3 = Possible 2 = Unlikely 1 = Rare		5 = Severe 4 = Major 3 = Moderate 2 = Minor 1= Incidental					
<u>1-4</u> A	cceptable	<u>5 - 9</u> Acceptable with control measured	sures <u>10 - 16</u>	Requires the implementation of best practice <u>17 and Above</u> = UNACCEPTABLE					
5	Certain	 Common or repeating occurrence Consequence can reasonably be expected to occur in life of Project. 	5 Se	 An evere - Major pollution incident causing significant and widespread damage or potential to health or the environment Persistent reduction in ecosystem function and value. Ongoing disruption and loss of protected species. Major prosecution likely, outcome in excess of \$500,000 					
4	Likely	 Known to have occurred / "has happened" Conditions may allow the consequence to occur on the Project during its lifetime The event has occurred within the Business Unit within the previous 5 years. 	4 N	 Significant widespread and persistent changes to habitat, species or environmental media Significant pollution incident causing damage or potential damage to health or the environment external to the site. Potential for prosecution. Potential outcome between \$50,000 - \$500,000 Numerous substantial complaints Actual material environmental harm 					
3	Possible	 Could occur / "heard of it happening" Exceptional conditions may allow consequences to occur on the Project, or has occurred nationally within the Australian Business. 	3 Mo	 derate - Localised irreversible habitat loss or effects on habitat, species or environmental media Reportable incident to the relevant environmental regulator or other authority. Demonstrated breach of legislative, licence or guideline requirements. Likely infringement notice or fine, potential for prosecution up to \$50,000. Will cause complaints. 					
2	Unlikely	 Not likely to occur Reasonable to expect that the consequence will not occur on the Project. Has occurred in industry but not in Business Unit. 	2 N	 Localised degradation of habitat or short term impacts to habitat, species or environmental media. Pollution incident that marginally exceeds licence conditions or guidelines for acceptable pollution. Fine unlikely. Potential for complaints. 					





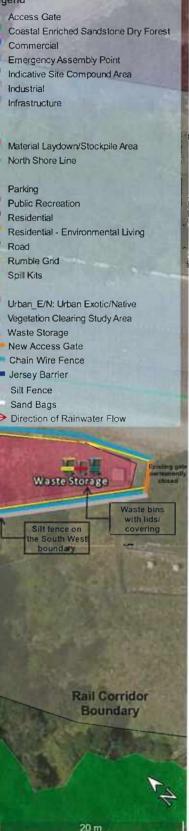
1	Rare	 Practically impossible Not known to have or industry or unheard or 	curred in		- Fully		effects on habitat, species or environmental media. and can be fully remediated. Little potential for fine or compla cident			
obability ►		CERTA		R .	LIKELY	POSSIBLE	UNLIKELY	RARE		
Cons	sequence		5			3	2			
5-	Severe		25		20	15	10	5		
4-	Major		20		16	12	8	4		
3 – Moderate 15		15		12	9	6	3			
2-	Minor		10		8	6	4	2		
1-	Incidental		6		4	3	2	8		

Environmental Control Map

















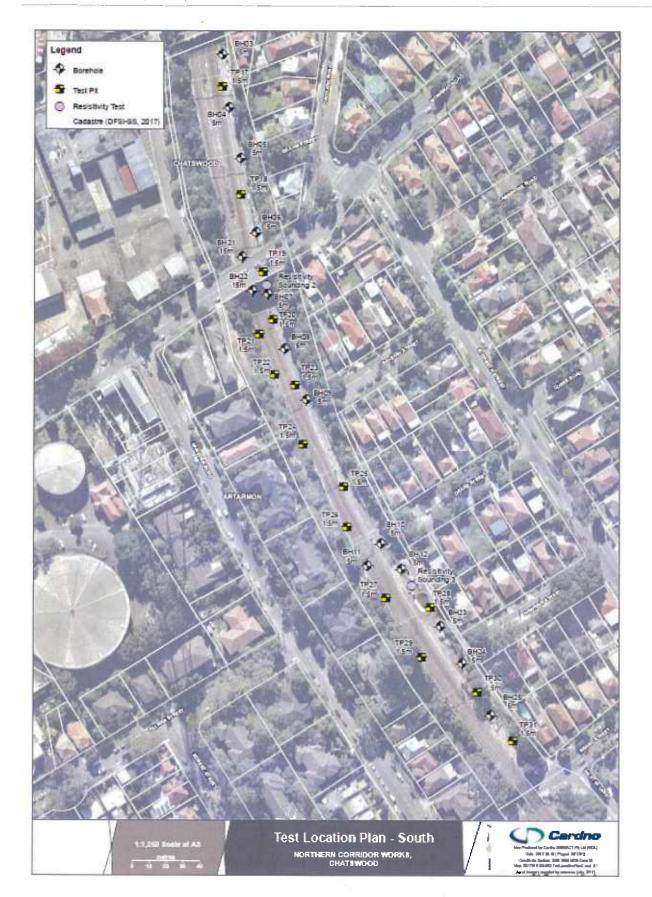






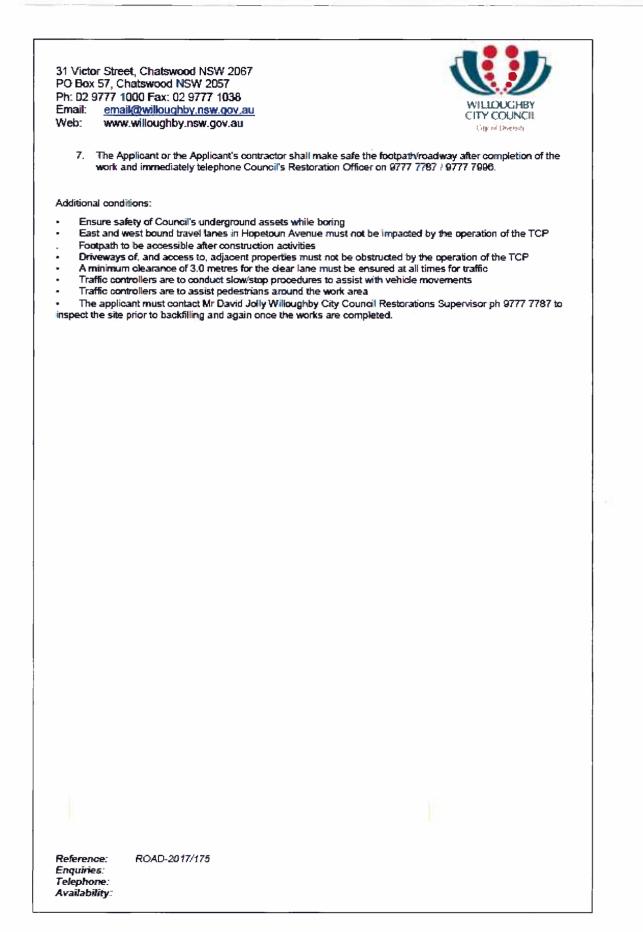
Test Pit & Borehole locations





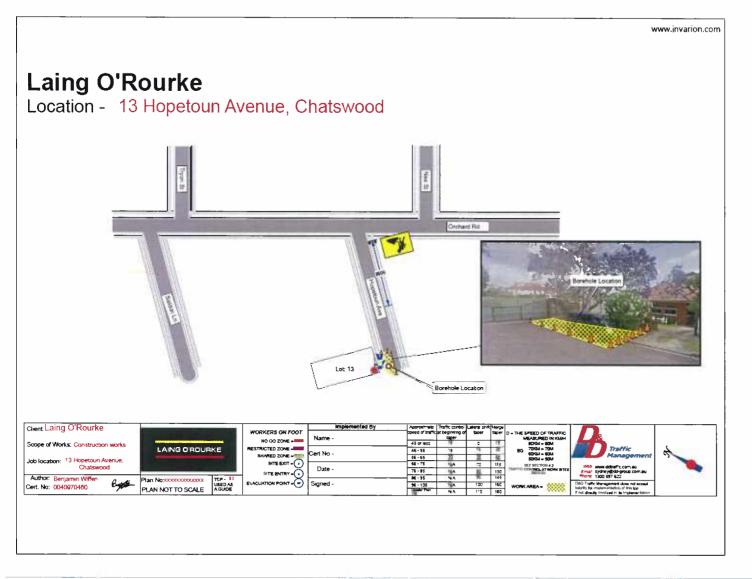
Road Occupancy Permit

PO Bo	or the second part of the of the p	N 2057 777 1038 .nsw.gov.au		WILLOUGHBY CITY COUNCIL City of Unersity	
		Road Openi Permit No: RO	-		
				26-Oct-2017	
Level	O'Rourke Australia 4/100 Arthur St 'H SYDNEY NSW	2060	12		
Permi Purpo	t Location: se:	•	Avenue, CHATSW0 itech borehole wor	DOD NSW 2067. ks for Sydney Metro	
Contac	t Telephone	Martin O'Brie	Martin O'Brien m# 0457 560 728		
Date R	equired From	06-Nov-2017	06-Nov-2017		
Date R	equired To	13-Nov-2017			
Total A	rea	5.0m2			
Fees	Or soline Respi	55.00	50.00	#0.00	
REOM	Opening Permit Fee	SD.00	\$0.00	\$0.00	
Permit	issued under Section	139 of the Roads Act 1993	subject to the follow	ving conditions:	
1.	stages of the work in a	pplicant's contractor shall p coordance with Australian 3 accordance with the requir	Standard AS1742.3. Al		
2.	submitted Traffic Cont	ty NSW, and NSW Dial 110	is and specification of t	nried out comply with the this Permit and the requirements rice applicable to this application	
3.	The Applicant or the Applicant's contractor shall indemnify Council against all loss of or damage to the property of others and injury or death to any persons which may arise out of or in consequence of the carrying out of the work and against all claims, demands, proceedings, costs charges and expenses whatsoever in respect thereof or in relation thereto. In this regard, the Applicant shall take out a public liability policy at the Applicant's own expense during the currency of the works in the sum of not less than twenty million dollars (\$20,000,000).				
4.	The Applicant or the Applicant's contractor shall ensure that no construction debris is left in Council's road reserve during all stages of work.				
5.	The Applicant or the Applicant's contractor shall ensure that pedestrian access will not be impeded and is maintained at all times.			access will not be impeded and	
6.		pplicant's contractor shall p r determines that a larger o		storation charges if Council's	
Referei Enquiri Teleph Availat	nce: ROAD-2017/ les: one:	-	G		





Traffic Control Plan



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		Environmental Control Map	
ID	Environmental Aspect	Description	
1	Project	This ECM applies to Pre-Construction Minor Works for Portion 7a delivered under Northern Corridor Works (Enabling works for Sydney Metro City and Southwest, Chatswood to Sydenham).	
2	Site Access	Site access will be from existing Hopetoun Ave rail corridor access gate.	
3	Program of works	Refer Pre-Construction Minor Works Application Section 2 "Occasions" for possession program.	
4	General	 The team will be trained on this ECM, OOHW requirements, general environmental issues, and location of sensitive areas. Works will be subject to inspections by the ER, Sydney Metro Environment and Planning Manager and LOR Environmental Manager. This ECM will be displayed on site sheds. 	
5	Co ntamination	 Unexpected contamination finds will be managed onsite by occupational hygienist in attendance. All waste to be classified prior to disposal. 	
6	Air Quality	No air quality related issues are expected to be encountered.	
7	Waste	All waste will be transferred to bins located at Cleland Rd Site Compound.	
8	Soils and water	 No soil and water related issues are expected to be encountered. 	
9	Heritage	 Unexpected finds of heritage items must be reported to LOR Environmental Manager and Sydney Metro. 	
10	Noise and Vibration	 Noise monitoring will be carried out to validate noise predictions and also during any complaints. All works will be completed in compliance with Sydney Metro CEMF, SSD 15_7400 Planning Approval, Construction Noise Strategy and EPL 12208 requirements. All plant will have non-tonal alarms. Community notifications will be drafted and sent to Sydney Metro Community Liaison team separately. 	
11	Traffic and Transport	 Access to the site will be from existing access gate. All delivery drivers will be given an induction covering relevant environmental controls to their activities. No additional traffic controls are required for the works. 	
12	Utilities	 Any impacts to utilities will be reported to site HSE Manager, supervisors, Sydney Trains and Sydney Metro. 	
13	Biodiversity	 If vegetation other than grass and weeds needs to be trimmed or removed, further assessment would be undertaken and approval sought from Sydney Metro prior to trimming or removal. If threatened flora or fauna species are identified on site, work in the vicinity of these species would stop immediately. A spotter/catcher/botanist would be engaged to survey the site and advise on species management. Where trenching or excavation is required, the location or route would be modified to avoid any damage to trees or tree roots, where possible. 	
	,	 Trenches/excavations would be covered at the end of each day and inspected before they are backfilled to ensure no fauna species are harmed. Stockpiles, plant, equipment and materials will be located on existing cleared areas, away from the drip zone of trees and native vegetation. Soil and vegetation that could contain weed material should be removed from machinery prior to any movements off site. 	
14	Chemical, fuel storage and use	 No fuels and chemicals are expected to be brought to site as part of these works. All plant and equipment will be checked daily to ensure there is no leaking oil, fuel or other liquids. 	
15	Imported materials	No materials to be imported for these minor works.	
16	No-go zones	 Activities will be restricted to the rail corridor. All activities outside the NCW site boundary will undergo a review for potential environmental impacts and require approval from Sydney Metro. 	

(Uncontrolled when printed)



	Contact Information	
Position	Name	Phone
LOR Project Leader	Tony Deacy	0467 762 987
LOR Construction Manager	Martin O'Brian	0457 560 728
LOR/Sydney Metro Communications Manager	Michael Lloyd	0466 545 168
LOR Environment and Sustainability Manager	Chris Standing	0431 338 578
LOR WHS Manager	Clive Hunter	0428 412 130
ER	Alice Pryke	0451 084 390
Sydney Metro Environmental Manager	Andrew Hendy	0475 983 494
Sydney Metro City and Southwest Info Line		1800 019 989
Sydney Trains Info Line		131 500
Environmental Line / Pollution Incident Response L	ine	131 555
Office of Environment & Heritage Pollution Line		131 555
Emergency		000 or 112 (mobiles)
WIRES		1300 094 737

Audible construction works unless otherwise approved by the Environmental Manager will be restricted to:

- 7:00AM to 6:00PM Monday to Friday
- 8:00AM to 1:00PM Saturdays
- No work on Sundays or public holidays

Any works outside of the hours above require OOHW and Sydney Metro and LOR Environmental Manager's Approval

As per Sydney Trains EPL,

"High noise impact works and activities must only be undertaken:

- a) between the hours of 8:00am to 6:00pm Monday to Friday;
- b) between the hours of 8:00am to 1:00pm Saturday; and
- c) in continuous blocks not exceeding 3 hours each with a minimum respite from those activities and works of not less than 1 hour between each block"

Out-of-Hour Works

Saturday, 4th November 2017: **0600 - 2400**

Sunday, 5th November 2017:. **0000 - 2400**

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Appendix 2: Cover Page

Environmental Management Documentation - Not Used



Appendix 3: Cover Page

Community Notification - Undertaken by Sydney Metro in conjunction with LOR. Combined letter to be issued which will cover MNNSCW Portion 6 and NCW Portion 7a works.



Appendix 4: Cover Page

Environmental Representative Supporting Letter - Refer to Section 12 Determination Page above