

**Schedule A1. Contract Particulars**

<b>Conditions Precedent to Completion:</b> (Clause 1.1)	See Schedule A2
<b>Contract Documents</b> (Clause 1.1)	The General Conditions and the Schedules
Contractor: (Clause 1.1)	Laing O'Rourke Australia Construction Pty Ltd ABN 39 112 099 000 Level 4, 100 Arthur Street North Sydney NSW 2060
<b>Date for Completion:</b> (Clause 1.1)	See Schedule A2
<b>Defects Rectification Period:</b> (Clause 1.1)	The Defects Rectification Period for each Milestone is the period commencing on the Date of Completion of the Milestone and expiring [REDACTED] after the Date of Completion of the last Milestone to achieve Completion.
<b>Environmental Representative:</b> (Clause 1.1)	[REDACTED] – Healthy Buildings International Pty Limited
<b>Interface Contractors:</b> (Clause 1.1)	Sydney Trains, NSW Trains, UGL Limited (Lee St Substation contractor), Central Station main works contractor, Sydney Trains contractor(s) for OHW modernisation program, Central Station precinct contractor(s), Sydney Trains maintenance or renewals contractor(s), Sydney Trains major works contractor(s), Sydney Light Rail contractor(s), Sydney Metro City & Southwest enabling works contractor, Sydenham Strathfield signal box automation contractor
<b>Original Contract Price:</b> (Clause 1.1)	[REDACTED]
<b>Milestones:</b> (Clause 1.1)	See Schedule A2
<b>Principal's Representative:</b> (Clause 1.1)	[REDACTED]
<b>The Site:</b> (Clause 1.1)	See Schedule E1
<b>Third Party Agreements:</b> (Clauses 1.1 and 2.11)	See Schedule E5
<b>Working days:</b> (Clause 1.2(m))	Monday to Saturday excluding public holidays in Sydney and rostered days off, plus any other day included in a Track Possession.
<b>Order of Precedence:</b> (Clause 1.4)	The Contract excluding the Schedules; then (a) Schedule A1; then (b) the Sydney Metro Requirements (Schedule D1); then (c) the SWTC (Schedule C1); then

	(d) Schedules A2-A20, B1-B8, C2, D2, E1-E5, F1-F6
<b>Are Deed Polls in Schedule A11 and Schedule A10 required</b> (Clause 1.5)	Schedule A10 – Yes Schedule A11 - Yes
<b>Names of persons in whose favour the Deed Poll in Schedule A11 and Schedule A10 are required</b> (Clause 1.5)	Schedule A10 – Rail Transport Agency Schedule A11 – Sydney Trains and NSW Trains
<b>Contractor's Personnel</b> (Clauses 2.1(d), 9.4(a) and 9.4(b)(i))	Contractor's Representative – [REDACTED] See Schedule A8
<b>Amount for approval of Subcontracts:</b> (Clause 2.2(b))	Subcontracts with an initial price of [REDACTED] or greater.
<b>Subcontract prices for which security of payment provisions are required:</b> (Clause 2.2(e)(i))	Subcontracts with an initial price of [REDACTED] or greater.
<b>Subcontractors required to execute deed in form of Schedule A9:</b> (Clause 2.2(e)(iv))	Subcontracts with an initial price of [REDACTED] or greater.
<b>Warranties required from Subcontractors:</b> (Clause 2.2(f))	See Schedule A6
<b>Subcontractors to be novated to Contractor:</b> (Clause 2.2(g))	Nil
<b>Parent Company Guarantor:</b> (Clause 2.7(f))	Laing O'Rourke Australia Pty Limited
<b>The party responsible for payment of the Long Service Leave Levy is</b> (Clause 2.8)	Contractor
<b>Site access dates:</b> (Clauses 3.1(a) and 3.1(b)(i))	See Schedule E1
<b>Site access preconditions:</b> (Clause 3.1(c)(ii)E)	See Schedule E1
<b>Rate for determining increase in Contract Sum for failure to give access:</b> (Clause 3.1(e)(ii))	[REDACTED]
<b>Parts of the Site within which the Works must be located:</b> (Clauses 3.12 and 7.6(b)(i))	See Schedule C1
<b>The principal contractor under the WHS legislation is:</b> (Clause 4.7)	Contractor

<b>Applicability of Building Code:</b> (Clause 4.11)	Clause 4.11 does apply.								
<b>Number of copies of Design Documentation and survey information:</b> (Clause 5.5)	4 (3 bound and 1 unbound) plus one copy in electronic format								
<b>Percentages to be applied to Change and daywork costs:</b> (Clauses 6.4 and 6.7)	<table border="0"> <thead> <tr> <th>Clause No.</th> <th>percentage</th> </tr> </thead> <tbody> <tr> <td>6.4(b)(iii)</td> <td>█</td> </tr> <tr> <td>6.4(b)(iv)</td> <td>█</td> </tr> <tr> <td>6.7</td> <td>█</td> </tr> </tbody> </table>	Clause No.	percentage	6.4(b)(iii)	█	6.4(b)(iv)	█	6.7	█
Clause No.	percentage								
6.4(b)(iii)	█								
6.4(b)(iv)	█								
6.7	█								
<b>Provisional Sum Work:</b> (Clauses 7.3)	Nil								
<b>Percentages for Overhead Costs and profit:</b> (Clause 7.3(b)(ii)B.2)	█								
<b>New Defects Rectification Period:</b> (Clause 8.6)	█								
<b>Rate to be used in determining delay damages:</b> (Clause 10.12)	█								
<b>Percentages to be applied for Compression</b> (Clause 10.14(e)(ii)B.1)	█								
<b>Liquidated damages:</b> (Clause 12.7(a))	See Schedule A2								
<b>Limit of liability for liquidated damages for delay:</b> (Clause 12.7(e))	█ of the Contract Sum exclusive of GST								
<b>Insurance of the Works</b> (Clause 13.4)									
(a) Alternative applying	Alternative 2 - an amount equal to the Contract Sum on a reinstatement and replacement basis								
If Alternative 2 applies									
(b) Provision for demolition and removal of debris	An amount equal to █ of the Contract Sum								
(c) Provision for consultants' fees and Principal's consultants' fees	An amount equal to █ of the Contract Sum								
(d) Value of materials or things to be	Not applicable								

supplied by the Principal

(e) Additional amount or percentage An amount equal to [REDACTED] of the Contract Sum

**Public and products liability insurance**  
(Clause 13.5)

(a) Alternative applying Alternative 2

If Alternative 2 applies

(b) Amount per occurrence shall be not less than [REDACTED] for any one occurrence and unlimited in the aggregate; [REDACTED] in the aggregate for products

**Amount of Contractor's insurance:**  
(Clauses 13.6(a) and 13.6(f)(iii))

- Workers compensation insurance or similar insurance as required under clause 13.5(f) for an amount as required by Law
- Construction Plant Insurance  
Not less than the current market value of the Construction Plant
- Professional Indemnity Insurance  
[REDACTED] any one claim and in the annual aggregate
- Motor Vehicle Insurance  
[REDACTED] third party property damage per occurrence
- Asbestos Liability Insurance  
[REDACTED] for each and every occurrence and in the annual aggregate
- Marine transit insurance in an amount equal to the maximum value of any one shipment
- Insurance required by Law or Change in Law  
As required by Law
- Insurance of materials fabricated overseas  
Replacement and reinstatement value

**Period for Professional Indemnity Insurance:**  
(Clause 13.8(d))

7 years

**Person in Insolvency Event:**  
(Clause 14.4(a)(i)C)

Laing O'Rourke Australia Pty Ltd  
 ABN 71 111 023 431  
 Level 4, 100 Arthur Street North Sydney NSW

**Amount for termination for convenience:**  
(Clause 14.10(a)(vi))

[REDACTED] of the cost determined under clauses 14.10(a)(ii), 14.10(a)(iv) and 14.10(a)(v)

**Clauses in respect of which disputes concerning directions of a Principal's Representative must be submitted within 14 days of date of direction:**  
(Clauses 15.1(d) and 15.2)

2.3(d)(ii) (Change in Law), 2.11(c) (Third Party Agreements), 3.1(e)(ii) (Access), 3.8(d) (Artefacts), 3.9(e) and 3.9(f) (Contamination), 6.4 (Valuation of Changes), 6.7 (Valuation of Daywork), 7.3 (Provisional Sum Work), 8.5 (Acceptance of defective work), 8.6 (Extension of Defects Rectification Period), 9.8(c)(ii) (Submission of Document for review), 10.9 (Extension of time), 10.10 (Reduction in extension of time), 10.12 (Delay damages), 10.13(b) (Suspension), 11.3 (Payment statements), 12.3(b) and 12.3(d) (Inspection before Completion), 14.6(b) (Principal's entitlements after take-out), 14.10(a) (Termination for convenience), and 14.12(a) (Termination by frustration)

**Executive Negotiator:**  
(Clauses 15.5)

Principal: [REDACTED]

Contractor: [REDACTED]

**Addresses:**

(Clause 17.1(b))

Principal: 22 Giffnock Avenue Macquarie Park NSW 2113

Facsimile: (02) 8265 9501

Principal's Representative: 22 Giffnock Avenue Macquarie Park NSW  
2113

Facsimile: (02) 8265 9501

Contractor: Level 4, 100 Arthur Street North Sydney NSW 2060

Facsimile: (02) 9903 0333

Contractor's Representative: Level 4, 100 Arthur Street North Sydney  
NSW 2060

Facsimile: (02) 9903 0333

**Time for giving notices:**

(Clauses 18.1(a) and 18.3(a))

10 Business Days

**Time for written Claims:**

(Clauses 18.1(b) and 18.3(c))

20 Business Days

## Schedule A2. Milestones

(Clause 1.1, 3.1(c), 12.7)

### Part 1. General

Unless the context requires otherwise, terms which are defined in the SWTC have the same meaning where used in this Schedule A2.

### Part 2. Milestones

Milestone	Description	Date for Completion	Liquidated damages	Conditions precedent to completion
Milestone 1	All works necessary to allow the design vehicles specified in the SWTC to safely traverse from Regent Street into Sydney Yard and vice versa using the SYAB. In particular, the SYAB must be available for others (including Sydney Metro Central Station Main Works contractor, Sydney Metro enabling works contractor(s) and Sydney Trains) to use in both directions for a minimum of 6 hours each day in no more than 2 continuous periods between the hours of 6.30 am and 6.30pm	9 February 2018		Configuration Change CCB Gate 4 approval including resolution of any Milestone 1 conditions
Milestone 2	Those Works not included in Milestone 1 and any remaining Works following completion of Milestone 1	5 April 2018		Completion of the Works and Configuration Management Asset Assurance Committee (CMAAC) Gate 5 approval and resolution of any outstanding conditions

**Schedule A3.      Not used**

## **Schedule A4. Subcontract Terms**

(Clause 2.2(e)(i))

The following terms must be included in each Subcontract, and the Subcontracts let by those Subcontractors, as referred to in clause 2.2(e) of the General Conditions of this Contract.

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### **1. Options as to Form of Security**

A clause which allows the Subcontractor to lodge an approved unconditional undertaking from a bank or financial institution instead of a cash security or retention moneys as its security for performance of the Subcontract.

A clause which provides that if the Subcontractor does lodge an unconditional undertaking for the required amount, the Contractor must not deduct further retention moneys and any retention moneys or other cash security then held will be promptly released to the Subcontractor.

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### **2. Trust for Cash Security and Retention Moneys**

A clause which has the effect that:

- (a) cash securities and retentions under the Subcontract and the cash proceeds of any security converted to cash (other than in exercise of a contractual right of enforcement) is trust money and must be deposited into and held in a trust account with a bank within 24 hours of receipt or conversion;
- (b) the trust money is beneficially owned by the party which provided the security at all times unless the other party becomes entitled to receive them under the Subcontract;
- (c) the security holder must hold proper records and account to the security provider for the trust moneys; and
- (d) any interest earned by the trust account will not be held in trust, and will be owned by the security holder.

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### **3. Payment Provisions**

A clause which:

- (a) has the effect of requiring the Contractor to pay the Subcontractor (and Subcontractors their subcontractors) regular progress payments for 100% of the value of work (less only retention moneys, if any, paid into the trust account) for which payment is claimed by the Subcontractor and for which the Contractor has claimed payment from the Principal, no later than:
  - (i) in the case of the Contractor's Subcontractors, 7 days; and
  - (ii) in the case of the Subcontractor's subcontractors, 14 days,after the last day for payment by the Principal to the Contractor for such work;



- (b) states nothing in the clause referred to in paragraph (a) is to be read so as to prevent the Contractor from paying the Subcontractor an amount in excess of that claimed from the Principal, or before the time stipulated in that clause; and
- (c) states if anything in the clause referred to in paragraph (a) is inconsistent with any other provision in the Subcontract, the provisions of that clause will prevail to the extent of the inconsistency.

A clause that prescribes an interest rate for overdue payments that is not less than the interest rate specified in clause 11.13 of the General Conditions of this Contract.

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#### **4. Alternative Dispute Resolution**

A clause that requires alternative dispute resolution procedures of the type required in this Contract.

A clause making it optional for the Subcontractor to comply with the alternative dispute resolution process if the only remedy it seeks is an order for payment of money which is not disputed to be due and payable under the Subcontract.

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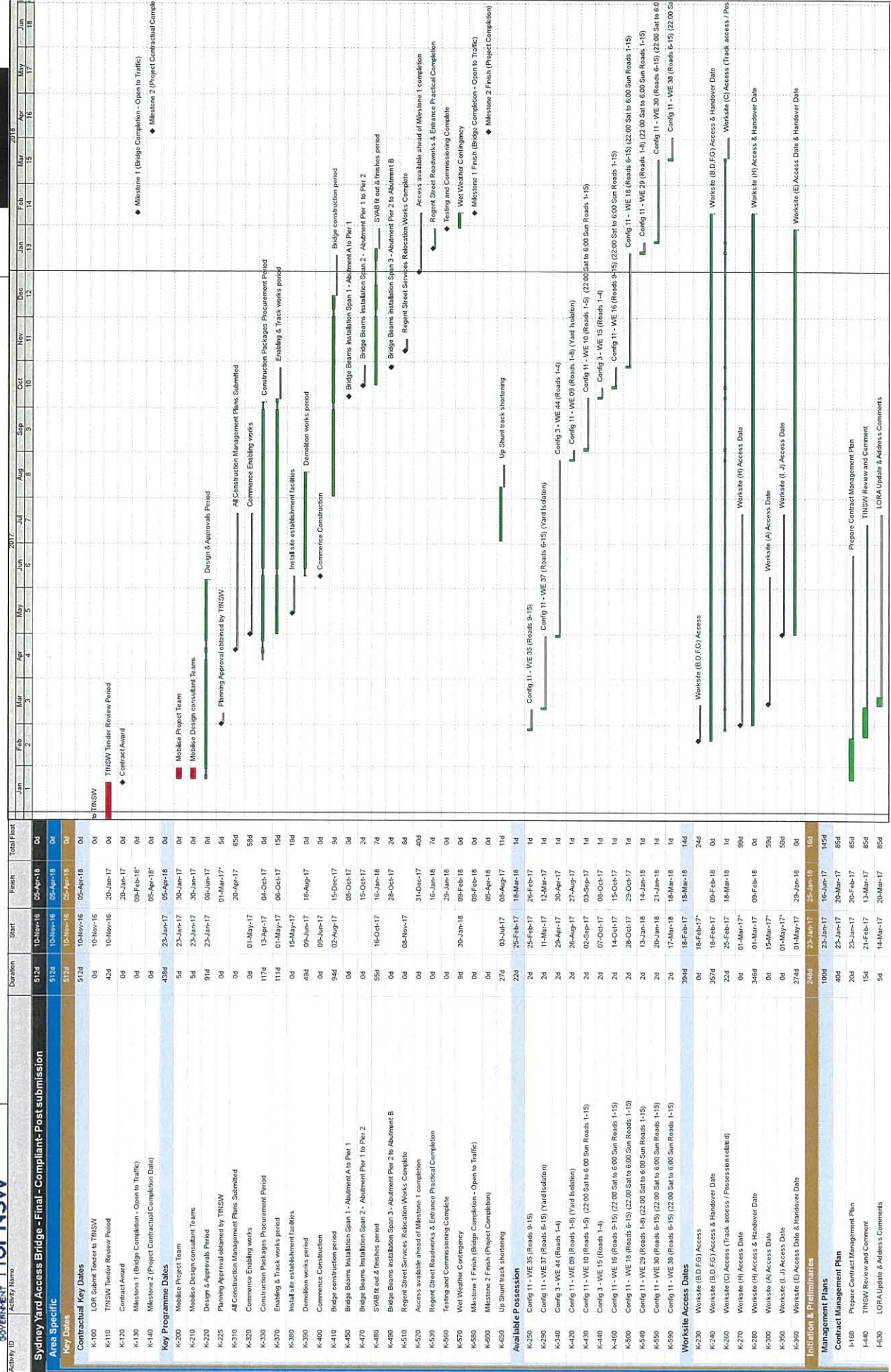
#### **5. Documents to be Provided to Subcontractors**

A clause that requires the Contractor to provide the Subcontractor with a copy of extracts from this Contract before the Subcontractor starts work under the Subcontract. The extracts to be provided are:

- (a) clause 2.2(e)(i);
- (b) this Schedule A4;
- (c) clause 11; and
- (d) clause 15.

**Schedule A5. Initial Contractor's Program**

# TfNSW - Sydney Yard Access Bridge Tender Programme Compliant Option Submission 17/1/17



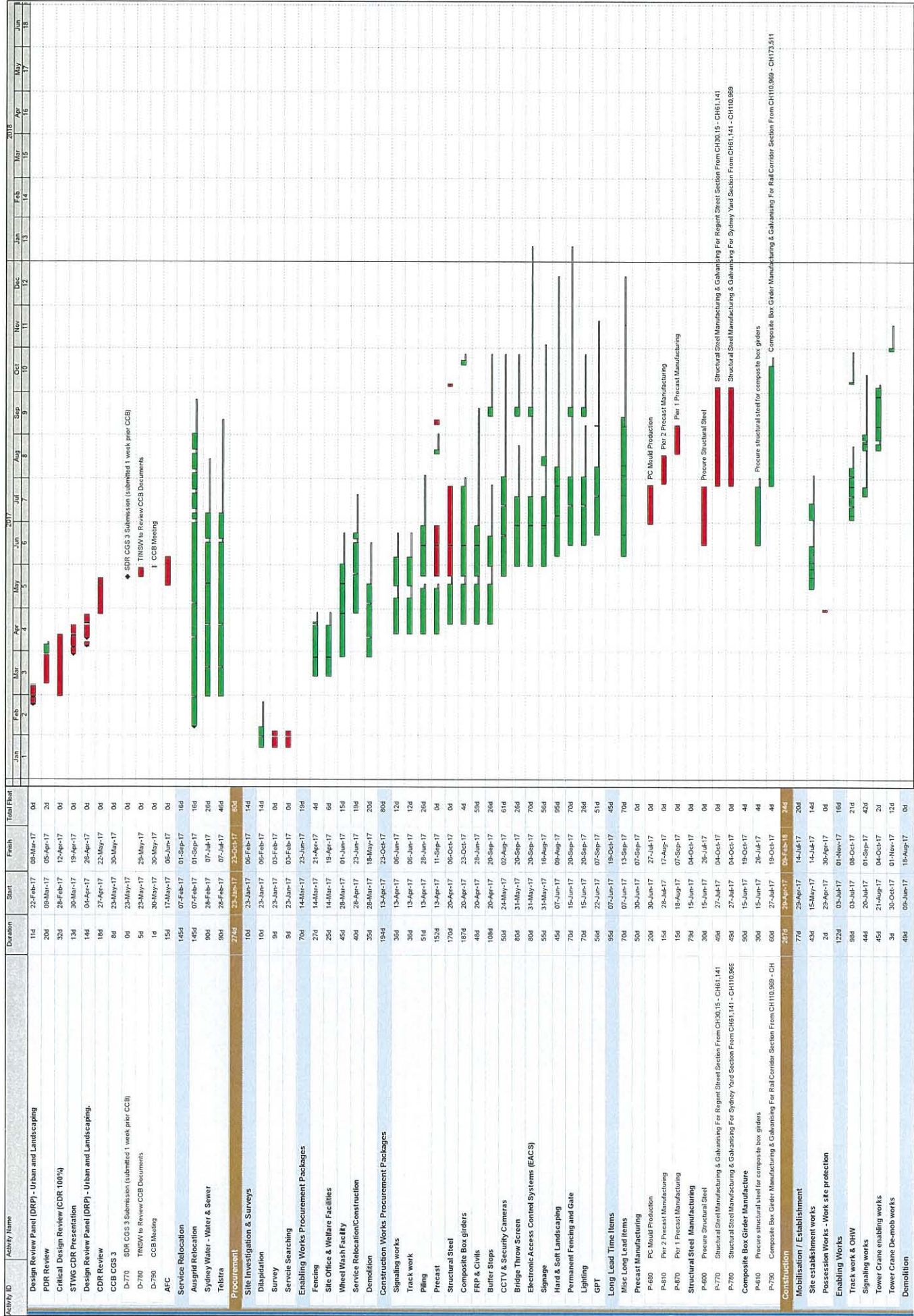
Activity Name	Start	Finish	Duration	Total Float
<b>Contractual Key Dates</b>				
K-100 LOP Submit Tender to TfNSW	10-Nov-16	05-Apr-18	512d	0d
K-110 TfNSW Tender Review Period	10-Nov-16	05-Apr-18	512d	0d
K-120 Contract Award	05-Apr-18	05-Apr-18	0d	0d
K-130 Mobilise Project Team	05-Apr-18	05-Apr-18	0d	0d
K-140 Mobilise Design consultant Teams	05-Apr-18	05-Apr-18	0d	0d
K-150 Planning Approval obtained by TfNSW	05-Apr-18	05-Apr-18	0d	0d
<b>Key Programme Dates</b>				
K-200 All Construction Management Plans Submitted	01-May-17	01-May-17	0d	0d
K-210 Commence Enabling works	01-May-17	01-May-17	0d	0d
K-220 Commence Construction	01-May-17	01-May-17	0d	0d
K-230 Install site establishment facilities	01-May-17	01-May-17	0d	0d
K-240 Demolition works period	01-May-17	01-May-17	0d	0d
K-250 Enabling & Track works period	01-May-17	01-May-17	0d	0d
K-260 Bridge construction period	01-May-17	01-May-17	0d	0d
K-270 Bridge Beams Installation Span 1 - Abutment A to Pier 1	01-May-17	01-May-17	0d	0d
K-280 Bridge Beams Installation Span 2 - Abutment Pier 1 to Pier 2	01-May-17	01-May-17	0d	0d
K-290 SYAB fit out & finishes period	01-May-17	01-May-17	0d	0d
K-300 Bridge Beams installation Span 3 - Abutment Pier 2 to Abutment B	01-May-17	01-May-17	0d	0d
K-310 Regent Street Services Relocation Works Complete	01-May-17	01-May-17	0d	0d
K-320 Access available ahead of Milestone 1 completion	01-May-17	01-May-17	0d	0d
K-330 Regent Street Roadworks & Entrance Practical Completion	01-May-17	01-May-17	0d	0d
K-340 Testing and Commissioning Complete	01-May-17	01-May-17	0d	0d
K-350 Wet Weather Contingency	01-May-17	01-May-17	0d	0d
K-360 Milestone 1 Finish (Bridge Completion - Open to Traffic)	01-May-17	01-May-17	0d	0d
K-370 Milestone 2 Finish (Project Completion)	01-May-17	01-May-17	0d	0d
K-380 Up Shunt track shortening	01-May-17	01-May-17	0d	0d
<b>Available Possession</b>				
K-390 Config 11 - WE 37 (Roads 9-15) (Yard Isolation)	25-Feb-17	18-Mar-18	22d	1d
K-400 Config 3 - WE 44 (Roads 1-4)	11-Mar-17	12-Mar-17	2d	1d
K-410 Config 11 - WE 09 (Roads 1-8) (Yard Isolation)	25-Feb-17	30-Apr-17	24d	1d
K-420 Config 11 - WE 10 (Roads 1-5) (22.00 Sat to 6.00 Sun Roads 1-15)	02-Sep-17	03-Sep-17	2d	1d
K-430 Config 3 - WE 15 (Roads 1-4)	07-Oct-17	08-Oct-17	2d	1d
K-440 Config 11 - WE 16 (Roads 5-15) (22.00 Sat to 6.00 Sun Roads 1-15)	14-Oct-17	15-Oct-17	2d	1d
K-450 Config 11 - WE 23 (Roads 1-8) (22.00 Sat to 6.00 Sun Roads 1-15)	28-Oct-17	29-Oct-17	2d	1d
K-460 Config 11 - WE 30 (Roads 6-15) (22.00 Sat to 6.00 Sun Roads 1-15)	13-Jan-18	14-Jan-18	2d	1d
K-470 Config 11 - WE 38 (Roads 6-15) (22.00 Sat to 6.00 Sun Roads 1-15)	20-Jan-18	21-Jan-18	2d	1d
<b>Worksite Access Dates</b>				
K-230 Worksite (B,D,F,G) Access	18-Feb-17	18-Mar-18	364d	14d
K-240 Worksite (C) Access (Track access / Possession etab)	18-Feb-17	08-Feb-18	357d	0d
K-250 Worksite (H) Access Date	01-Mar-17	08-Feb-18	348d	99d
K-260 Worksite (I) Access Date	01-Mar-17	08-Feb-18	348d	0d
K-270 Worksite (A) Access Date	15-Mar-17	08-Feb-18	356d	59d
K-280 Worksite (J) Access Date	01-May-17	29-Jan-18	274d	59d
K-290 Worksite (E) Access Date & Handover Date	23-Jan-17	25-Jan-19	249d	103d
<b>Management Plans</b>				
I-100 Prepare Contract Management Plan	23-Jan-17	20-Mar-17	40d	145d
I-110 TNSW Review and Comment	23-Jan-17	20-Mar-17	40d	85d
I-120 LORPA Update & Address Comments	21-Feb-17	13-Mar-17	15d	85d
I-130 LORPA Update & Address Comments	14-Mar-17	20-Mar-17	5d	85d

Activity ID	Activity Name	Start	Duration	Finish	Total Float	2017	2018																	
						Jan 1	Feb 2	Mar 3	Apr 4	May 5	Jun 6	Jul 7	Aug 8	Sep 9	Oct 10	Nov 11	Dec 12	Jan 13	Feb 14	Mar 15	Apr 16	May 17	Jun 18	
I-710	Contract Management Plan Complete and Approved	20-Mar-17	0d	20-Mar-17	85d																			
	<b>Quality Plan</b>																							
	Engineering Management Plan	20-Mar-17	40d	20-Mar-17	85d																			
	Construction Traffic Management Plan (and Sub Plans)	20-Mar-17	40d	20-Mar-17	85d																			
	Construction Environmental Management Plan (CEMP and Sub Plans)	20-Mar-17	40d	20-Mar-17	85d																			
	Workplace Relocation Management Plan	20-Mar-17	50d	20-Mar-17	75d																			
	Construction and Site Management Plan	20-Mar-17	50d	20-Mar-17	75d																			
	Commuter and Passenger Management Plan	20-Mar-17	50d	20-Mar-17	75d																			
	Community Liaison Management Plan	20-Mar-17	50d	20-Mar-17	75d																			
	Property Management Plan	20-Mar-17	50d	20-Mar-17	75d																			
	Risk Management Plan	20-Mar-17	50d	20-Mar-17	75d																			
	Safety Assurance Plan (SAP)	20-Mar-17	50d	20-Mar-17	75d																			
	Project Health and Safety Management Plan (and Sub Plans)	20-Mar-17	50d	20-Mar-17	75d																			
	Training Management Plan	20-Mar-17	60d	20-Mar-17	35d																			
	Workplace Development and Industry Participation Plan	20-Mar-17	60d	20-Mar-17	35d																			
	Commissioning and Operational Readiness Management Plan	20-Mar-17	95d	20-Mar-17	24d																			
	Defects Management Plan	20-Mar-17	100d	20-Mar-17	145d																			
	Approvals	20-Mar-17	95d	20-Mar-17	19d																			
	Heritage Approvals	20-Mar-17	95d	20-Mar-17	0d																			
	EIS (Planning Approval/Rem)	20-Mar-17	70d	20-Mar-17	0d																			
	Traffic Management Approvals	20-Mar-17	60d	20-Mar-17	35d																			
	Other Approvals	20-Mar-17	46d	20-Mar-17	29d																			
	Construction planning	20-Mar-17	125d	20-Mar-17	46d																			
	Possession Planning	20-Mar-17	244d	20-Mar-17	16d																			
	WE 37 (11 - 12 Mar 2017)	20-Mar-17	20d	20-Mar-17	0d																			
	WE 44 (29-30 Apr 2017)	20-Mar-17	60d	20-Mar-17	0d																			
	WE 09 (28 - 27 Aug 2017)	20-Mar-17	80d	20-Mar-17	5d																			
	WE 10 (2 - 3 Sep 2017)	20-Mar-17	80d	20-Mar-17	0d																			
	WE 15 (7 - 8 Oct 2017)	20-Mar-17	80d	20-Mar-17	0d																			
	WE 16 (14 - 15 Oct 2017)	20-Mar-17	80d	20-Mar-17	0d																			
	WE 18 (28 - 29 Oct 2017)	20-Mar-17	80d	20-Mar-17	0d																			
	WE 29 (13 - 14 Jan 2017)	20-Mar-17	80d	20-Mar-17	16d																			
	Possession Works Community Notifications	20-Mar-17	194d	20-Mar-17	0d																			
	Community Notification development	20-Mar-17	60d	20-Mar-17	20d																			
	WE 37 (11 - 12 Mar 2017)	20-Mar-17	20d	20-Mar-17	0d																			
	WE 44 (29-30 Apr 2017)	20-Mar-17	20d	20-Mar-17	0d																			
	WE 09 (28 - 27 Aug 2017)	20-Mar-17	20d	20-Mar-17	5d																			
	WE 10 (2 - 3 Sep 2017)	20-Mar-17	20d	20-Mar-17	0d																			
	WE 15 (7 - 8 Oct 2017)	20-Mar-17	20d	20-Mar-17	0d																			
	WE 16 (14 - 15 Oct 2017)	20-Mar-17	20d	20-Mar-17	0d																			
	WE 18 (28 - 29 Oct 2017)	20-Mar-17	20d	20-Mar-17	0d																			
	WE 29 (13 - 14 Jan 2017)	20-Mar-17	20d	20-Mar-17	0d																			
	<b>Design &amp; Engineering</b>																							
	<b>Site Investigation</b>																							
	Documentation & approval	20-Mar-17	91d	20-Mar-17	119d																			
	Dilapidation Survey	20-Mar-17	20d	20-Mar-17	0d																			
	Site Investigation & Survey	20-Mar-17	10d	20-Mar-17	31d																			
	Service Search	20-Mar-17	14d	20-Mar-17	24d																			
	<b>Geotech</b>																							
	15d	20-Mar-17	17d	20-Mar-17	11d																			
	65d	20-Mar-17	30d	20-Mar-17	119d																			
	15d	20-Mar-17	13d	20-Mar-17	0d																			
	20d	20-Mar-17	27d	20-Mar-17	0d																			
	22d	20-Mar-17	31d	20-Mar-17	24d																			
	<b>Initial Design Review Panel (DRP) Presentation</b>																							
	D-100 Organise Initial DRP presentation	20-Mar-17	5d	20-Mar-17	0d																			
	D-110 Prepare DRP presentation material	20-Mar-17	5d	20-Mar-17	0d																			
	D-150 Issue Presentation to DRP For Review	20-Mar-17	0d	20-Mar-17	0d																			
	D-160 Presentation Review By DRP	20-Mar-17	3d	20-Mar-17	0d																			
	D-170 Presentation Approved By DRP	20-Mar-17	0d	20-Mar-17	0d																			
	D-180 Finalise DRP Presentation	20-Mar-17	6d	20-Mar-17	0d																			
	D-200 Present to DRP	20-Mar-17	1d	20-Mar-17	0d																			
	<b>Full Design Package</b>																							
	127d	20-Mar-17	05-Jun-17	20-Mar-17	0d																			
	<b>Preliminary Design Review (PDR 60%)</b>																							
	20d	20-Mar-17	27-Feb-17	20-Mar-17	0d																			
	13d	20-Mar-17	07-Mar-17	20-Mar-17	0d																			
	0d	20-Mar-17	17-Feb-17	20-Mar-17	0d																			
	D-240 PDR Presentation Review & Comment By STWG	20-Mar-17	3d	20-Mar-17	0d																			
	D-260 PDR Presentation Approved By STWG	20-Mar-17	0d	20-Mar-17	0d																			
	D-270 Finalise PDR Presentation	20-Mar-17	6d	20-Mar-17	0d																			
	D-440 Present PDR Design to STWG	20-Mar-17	1d	20-Mar-17	0d																			
	D-480 STWG Comments Addressed by LORA	20-Mar-17	3d	20-Mar-17	0d																			

■ Normal Work   
 ■ Critical Work   
 ■ Possession Normal   
 ■ Possession Critical   
 ■ Milestone (S...)   
 ■ Float

● Data Date: 10-Nov-16   
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 ● SYAB-CON-170117

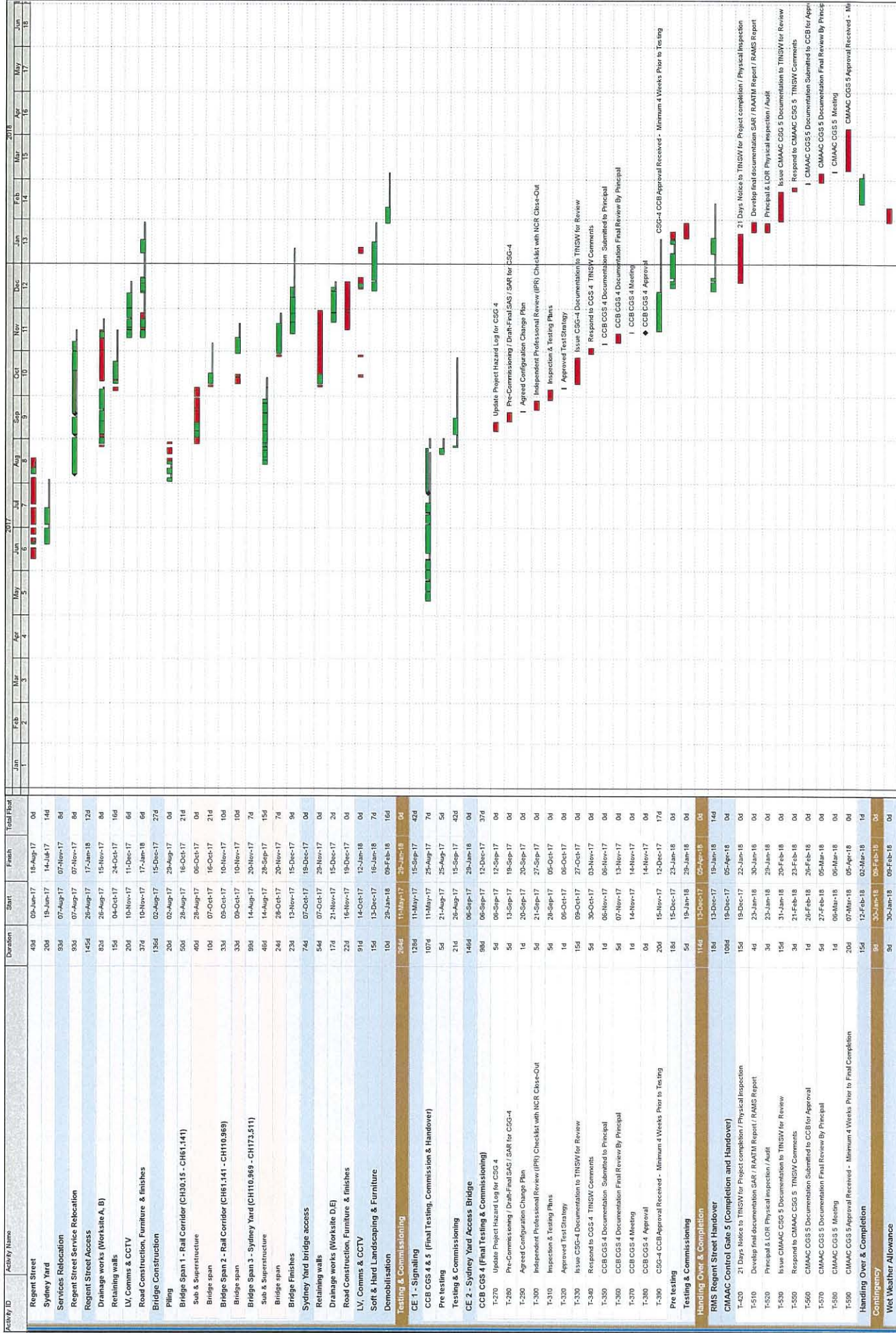
Date	Revision	Checked	Approved
09-Nov-16	SYAB Tender Programme	GO	RR
17-Jan-1			



Date	Revision	Checked	Approved
09-Nov-16	SYAB Tender Programme	GO	RR
17-Jan-17	SYAB Tender programme - Post submission	GO	RR

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 • SYAB-COM-170117

• Data Date: 10-Nov-16  
 • Milestone (S...)  
 • Possession Critical  
 • Mid Week Rail works  
 • Possession Normal  
 • Loe  
 • Float



Activity ID	Activity Name	Start	Finish	Total Float
434	Regent Street	09-Jun-17	18-Aug-17	0d
209	Sydney Yard	19-Jun-17	14-Jul-17	14d
933	Services Relocation	07-Aug-17	07-Nov-17	6d
1454	Regent Street Service Relocation	17-Jan-18	17-Jan-18	12d
824	Regent Street Access	26-Aug-17	15-Nov-17	8d
158	Drainage works (Worksite A, B)	04-Oct-17	24-Oct-17	16d
209	Retaining walls	10-Nov-17	11-Dec-17	6d
374	LV, Comms & CCTV	10-Nov-17	17-Jan-18	6d
1364	Road Construction, Furniture & finishes	02-Aug-17	15-Dec-17	27d
209	Bridge Construction	02-Aug-17	15-Dec-17	0d
501	Piling	28-Aug-17	16-Oct-17	21d
403	Bridge Span 1 - Rail Corridor (CH10.141 - CH11.141)	28-Aug-17	06-Oct-17	0d
104	Sub & Superstructure	07-Oct-17	16-Oct-17	21d
533	Bridge span	09-Oct-17	10-Nov-17	10d
333	Bridge Span 2 - Rail Corridor (CH110.969 - CH173.511)	09-Oct-17	10-Nov-17	10d
893	Bridge span	14-Aug-17	20-Nov-17	7d
464	Sub & Superstructure	14-Aug-17	28-Sep-17	15d
248	Bridge span	26-Oct-17	20-Nov-17	7d
234	Bridge Finishes	13-Nov-17	15-Dec-17	9d
744	Sydney Yard bridge access	07-Oct-17	19-Dec-17	0d
544	Retaining walls	07-Oct-17	29-Nov-17	0d
174	Drainage works (Worksite D,E)	21-Nov-17	15-Dec-17	2d
224	Road Construction, Furniture & finishes	16-Nov-17	19-Dec-17	0d
914	LV, Comms & CCTV	14-Oct-17	12-Jan-18	0d
154	Soft & Hard Landscaping & Furniture	13-Dec-17	16-Jan-18	7d
104	Demobilisation	29-Jan-18	09-Feb-18	16d
2044	Testing & Commissioning	11-May-17	20-Jan-18	0d
1284	CE 1 - Signalling	11-May-17	15-Sep-17	42d
1074	CGB CGS 4 & 5 (Final Testing, Commission & Handover)	11-May-17	25-Aug-17	7d
5d	Pre testing	21-Aug-17	25-Aug-17	5d
21d	Testing & Commissioning	26-Aug-17	15-Sep-17	42d
1464	CE 2 - Sydney Yard Access Bridge	06-Sep-17	29-Jan-18	0d
984	CGB CGS 4 (Final Testing & Commissioning)	06-Sep-17	12-Dec-17	37d
5d	T-270 Update Project Hazard Log for CSG 4	06-Sep-17	12-Sep-17	0d
5d	T-280 Pre-Commissioning / Draft-Final SAS / SAR for CSG-4	13-Sep-17	19-Sep-17	0d
1d	T-290 Agreed Configuration Change Plan	20-Sep-17	20-Sep-17	0d
5d	T-300 Independent Professional Review (IPR) Checklist with NCR Close-Out	21-Sep-17	27-Sep-17	0d
5d	T-310 Inspection & Testing Plans	28-Sep-17	05-Oct-17	0d
1d	T-320 Approved Test Strategy	06-Oct-17	06-Oct-17	0d
15d	T-330 Issue CSG-4 Documentation to TNSW for Review	09-Oct-17	27-Oct-17	0d
5d	T-340 Respond to CGS 4 TNSW Comments	30-Oct-17	03-Nov-17	0d
1d	T-350 CGB CGS 4 Documentation Submitted to Principal	06-Nov-17	06-Nov-17	0d
5d	T-360 CCB CGS 4 Documentation Final Review By Principal	07-Nov-17	13-Nov-17	0d
1d	T-370 CCB CGS 4 Meeting	14-Nov-17	14-Nov-17	0d
0d	T-380 CGB CGS 4 Approval	14-Nov-17	14-Nov-17	0d
20d	T-390 CSG-4 CCB Approval Received - Minimum 4 Weeks Prior to Testing	15-Nov-17	12-Dec-17	17d
18d	Pre testing	15-Dec-17	23-Jan-18	0d
5d	Testing & Commissioning	19-Jan-18	29-Jan-18	0d
144d	Handing Over & Completion	13-Dec-17	05-Apr-18	0d
18d	RMS Regent Street Handover	13-Dec-17	19-Jan-18	14d
108d	CMAAC Control Gate 5 (Completion and Handover)	19-Dec-17	05-Apr-18	0d
15d	T-420 21 Days Notice to TNSW for Project completion / Physical Inspection	19-Dec-17	22-Jan-18	0d
4d	T-510 Develop final documentation SAR / RAATM Report / RAMS Report	23-Jan-18	30-Jan-18	0d
3d	T-520 Principal & LOR Physical inspection / Audit	23-Jan-18	29-Jan-18	0d
15d	T-530 Issue CMAAC CGS 5 Documentation to TNSW for Review	31-Jan-18	20-Feb-18	0d
3d	T-550 Respond to CMAAC CGS 5 TNSW Comments	21-Feb-18	23-Feb-18	0d
1d	T-560 CMAAC CGS 5 Documentation Submitted to CCB for Approval	26-Feb-18	26-Feb-18	0d
5d	T-570 CMAAC CGS 5 Documentation Final Review By Principal	27-Feb-18	05-Mar-18	0d
1d	T-580 CMAAC CGS 5 Meeting	06-Mar-18	06-Mar-18	0d
20d	T-590 CMAAC CGS 5 Approval Received - Minimum 4 Weeks Prior to Final Completion	07-Mar-18	05-Apr-18	0d
15d	Handing Over & Completion	12-Feb-18	03-Mar-18	1d
6d	Contingency	30-Jan-18	05-Feb-18	0d
5d	Wet Weather Allowance	30-Jan-18	09-Feb-18	0d

■ Normal Work
 ■ Critical Work
 ■ Possession Normal
 ■ Possession Critical
 ■ Mid Week Rail works
 ■ Float

• Data Date: 10-Nov-16
   
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Date	Revision	Checked	Approved
09-Nov-16	SYAB Tender Programme	GO	RR
17-Jan-17	SYAB Tender programme - Post submission	GO	RR

# TfNSW - Sydney Yard Access Bridge Tender Programme Compliant Option Submission 17/1/17

Activity Name	Start	Finish	Duration	Total Float	2017	2018
Activity ID	Jan	Feb	Mar	Apr	May	Jun
<b>Sydney Yard Access Bridge - Final - Compliant- Post submission</b>						
<b>Area Specific</b>						
<b>Key Dates</b>						
K-100	10-Nov-16	05-Apr-18	512d	0d		
K-130	10-Nov-16	05-Apr-18	512d	0d		
K-140	10-Nov-16	05-Apr-18	512d	0d		
K-110	10-Nov-16	20-Jan-17	42d	0d		
K-120	10-Nov-16	20-Jan-17	42d	0d		
K-130	09-Feb-18*	0d	0d	0d		
K-140	05-Apr-18*	0d	0d	0d		
<b>Key Programme Dates</b>						
K-200	23-Jan-17	05-Apr-18	436d	0d		
K-210	30-Jan-17	30-Jan-17	5d	0d		
K-220	30-Jan-17	30-Jan-17	5d	0d		
K-230	05-Jun-17	05-Jun-17	81d	0d		
K-235	01-Mar-17*	01-Mar-17*	0d	0d		
K-310	20-Apr-17	20-Apr-17	65d	0d		
K-320	01-May-17	01-May-17	58d	0d		
K-330	13-Apr-17	04-Oct-17	177d	0d		
K-370	01-May-17	06-Oct-17	156d	0d		
K-390	15-May-17	18-Aug-17	94d	0d		
K-400	09-Jun-17	09-Jun-17	43d	0d		
K-410	05-Jun-17	05-Jun-17	94d	0d		
K-450	02-Aug-17	15-Dec-17	94d	0d		
K-470	09-Oct-17	09-Oct-17	2d	0d		
K-480	15-Oct-17	15-Oct-17	2d	0d		
K-490	16-Jan-18	16-Jan-18	55d	0d		
K-510	28-Oct-17	28-Oct-17	0d	0d		
K-520	05-Nov-17	05-Nov-17	0d	0d		
K-530	31-Oct-17	31-Oct-17	0d	0d		
K-550	15-Jan-18	15-Jan-18	0d	0d		
K-560	09-Feb-18	09-Feb-18	0d	0d		
K-570	05-Apr-18	05-Apr-18	0d	0d		
K-600	05-Apr-18	05-Apr-18	0d	0d		
K-650	03-Jul-17	08-Aug-17	27d	11d		
<b>Available Possession</b>						
K-250	25-Feb-17	18-Mar-18	22d	1d		
K-260	25-Feb-17	26-Feb-17	2d	1d		
K-290	11-Mar-17	12-Mar-17	2d	1d		
K-300	29-Apr-17	30-Apr-17	1d	1d		
K-420	26-Aug-17	27-Aug-17	2d	1d		
K-430	02-Sep-17	03-Sep-17	1d	1d		
K-440	07-Oct-17	08-Oct-17	2d	1d		
K-460	14-Oct-17	15-Oct-17	2d	1d		
K-500	28-Oct-17	29-Oct-17	2d	1d		
K-540	13-Jan-18	14-Jan-18	2d	1d		
K-550	20-Jan-18	21-Jan-18	2d	1d		
K-560	17-Mar-18	18-Mar-18	2d	1d		
<b>Worksite Access Dates</b>						
K-230	18-Feb-17	18-Mar-18	394d	14d		
K-240	18-Feb-17	05-Feb-18	367d	0d		
K-260	25-Feb-17	18-Mar-18	208	1d		
K-270	01-Mar-17	09-Feb-18	348d	0d		
K-300	15-Mar-17	01-May-17*	99d	0d		
K-360	01-May-17*	29-Jan-18	304d	0d		
<b>Initiation &amp; Preliminaries</b>						
K-100	25-Sep-17	25-Sep-18	248d	16d		
<b>Management Plans</b>						
I-160	23-Jan-17	16-Jan-17	100d	145d		
I-400	20-Feb-17	20-Feb-17	40d	85d		
I-430	21-Feb-17	13-Mar-17	15d	85d		
I-430	14-Mar-17	20-Mar-17	5d	85d		

**Normal Work**

**Critical Work**

**LOE**

**Mid Week Rail works**

**Possession Normal**

**Possession Critical**

**Revision**

**Date**

**09-Nov-16** SYAB Tender Programme

**17-Jan-17** SYAB Tender programme - Post submission

**Checked**

**GO**

**RR**

**Approved**

**RR**

• **Data Date: 10-Nov-16**

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• SYAB-CON-17/117

• **LOA Update & Address Comments**





Activity ID	Activity Name	Duration	Start	Finish	Total Float	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
I-1010	LORA Update & Address Comments	5d	11-Apr-17	15-Apr-17	65d																			
I-1030	Prepare Training Management Plan Complete and Approved	0d	23-Jan-17	19-Apr-17	65d																			
I-1200	Prepare Training Management Plan	40d	23-Jan-17	20-Mar-17	65d																			
I-780	TRISW Review and Comment	15d	21-Mar-17	10-Apr-17	65d																			
I-780	TRISW Review and Comment	0d	23-Jun-17	19-Apr-17	65d																			
I-1000	LORA Update & Address Comments	5d	11-Apr-17	15-Apr-17	65d																			
I-1020	Workplace Development and Industry Participation Plan Complete and Approved	0d	23-Jan-17	20-Mar-17	65d																			
I-2100	Prepare Workplace Development and Industry Participation Plan	15d	21-Mar-17	10-Apr-17	65d																			
I-770	TRISW Review and Comment	15d	21-Mar-17	10-Apr-17	65d																			
I-2000	Commissioning and Operational Readiness Management Plan	95d	23-Jun-17	08-Jun-17	24d																			
I-1050	TRISW Review and Comment	15d	12-May-17	01-Jun-17	24d																			
I-1140	LORA Update & Address Comments	5d	02-Jun-17	08-Jun-17	24d																			
I-1150	Commissioning and Operational Readiness Management Plan Complete and Approved	0d	08-Jun-17	08-Jun-17	24d																			
I-2300	Prepare Commissioning and Operational Readiness Management Plan	75d	23-Jun-17	11-May-17	24d																			
I-1050	TRISW Review and Comment	15d	19-May-17	08-Jun-17	145d																			
I-1160	LORA Update & Address Comments	5d	09-Jun-17	15-Jun-17	145d																			
I-1170	Defects Management Plan Complete and Approved	0d	15-Jun-17	15-Jun-17	145d																			
I-2000	Prepare Defects Management Plan	80d	23-Jun-17	18-May-17	145d																			
I-1100	Consult With Local Council On Preferred Design	10d	23-Jun-17	22-Feb-17	12d																			
I-1100	LORA Prepare Documentation For Section 60 Heritage Submission	95d	23-Jun-17	09-Jun-17	19d																			
I-1120	Heritage Council Meeting	0d	26-May-17	08-Jun-17	0d																			
I-1130	Council Final Review & Approval	10d	26-May-17	08-Jun-17	0d																			
I-1180	Heritage Council Approval	0d	09-Jun-17	08-Jun-17	0d																			
I-1190	TRISW notified of Section Heritage Approval (Post Heritage Council Meeting)	0d	09-Jun-17	08-Jun-17	0d																			
I-490	TRISW Review & Comment	15d	23-Feb-17	15-Mar-17	0d																			
I-790	LORA Update and Address Comments	3d	16-Mar-17	20-Mar-17	0d																			
I-810	TRISW Lodge Heritage Application	0d	21-Mar-17	20-Mar-17	0d																			
I-830	Heritage Application Assessment	45d	21-Mar-17	25-May-17	0d																			
I-1300	Environmental Protection License (2 weeks development & 60 Calendar Days Approval by EPA)	70d	23-Jun-17	04-May-17	16d																			
I-1300	Consultation with ST and Heritage Council of NSW for Design Development	20d	23-Jun-17	20-Feb-17	20d																			
I-410	Pre-construction Sustainability Report (prior to start of Construction)	15d	27-Feb-17	13-Mar-17	75d																			
I-530	Hazard Survey (Asbestos present in SY Hut)	15d	28-Feb-17	20-Mar-17	24d																			
I-530	Greenhouse Gas Inventory Report (at CDR stage)	15d	28-Feb-17	20-Mar-17	24d																			
I-540	Climate Change Impact Assessment Report (at CDR Commencement)	15d	28-Feb-17	20-Mar-17	24d																			
I-990	RMS Road Safety Audit	10d	11-Apr-17	27-Apr-17	40d																			
I-3000	Engage traffic management consultant for Regent Street works / Temp access	15d	23-Jan-17	15-Feb-17	30d																			
I-380	Develop traffic management plans & associated documents (TCP)	20d	14-Feb-17	13-Mar-17	30d																			
I-390	Consult with RMS / Sydney City Council	20d	14-Feb-17	13-Mar-17	40d																			
I-600	Issue to RMS / Sydney City Council for approval Regent Street - TM plans	20d	14-Mar-17	10-Apr-17	40d																			
I-690	Develop and Issue Road Occupancy Licence application for Regent Street works	15d	14-Mar-17	03-Apr-17	30d																			
I-970	RMS Review and approve Road Occupancy Licence for Regent Street works	10d	04-Apr-17	19-Apr-17	30d																			
I-460	Prepare Documentation For Holding Class B	46d	21-Feb-17	28-Apr-17	26d																			
I-500	Submit Application to Sydney City Council For Holding Class B	1d	28-Feb-17	28-Feb-17	29d																			
I-510	Council Application Review & Approval	40d	01-Mar-17	28-Apr-17	29d																			
K-610	Finalise site establishment details	125d	31-Jan-17	28-Jul-17	46d																			
K-620	Develop & finalise initial construction documentation, SWMS, etc.	30d	31-Jan-17	13-Mar-17	4d																			
K-630	Organise site establishment requirements	20d	14-Mar-17	10-Apr-17	11d																			
K-640	Mobilise to site - Establishment, welfare and facilities	35d	14-Mar-17	04-May-17	4d																			
K-650	Finalise & Organise tower crane and specific requirements	25d	14-Mar-17	04-May-17	4d																			
K-670	Consult with local authority re TC requirements	20d	14-Mar-17	10-Apr-17	61d																			
K-680	Tower crane Mobilisation period	60d	05-May-17	26-Jul-17	66d																			
WE 37 (11 - 12 Mar 2017)	WE 37 Conf 11 (Roads 6 to 15) (Void both item) - T-6 Possession in planning Start	244d	30-Jan-17	25-Jan-18	16d																			
I-300	WE 37 Conf 11 (Roads 6 to 15) (Void both item) - T-6 Possession in planning Start	20d	30-Jan-17	24-Feb-17	0d																			
I-300	WE 37 - T-6 to T-1 Possession Planning & Race Card activities	20d	30-Jan-17	24-Feb-17	0d																			
WE 44 (29-30 Apr 2017)	WE 44 Conf 3 - T-12 Possession planning Start	60d	01-Feb-17	28-Apr-17	0d																			
I-370	WE 44 Conf 3 - T-12 Possession planning Start	60d	01-Feb-17	28-Apr-17	0d																			
I-370	WE 44 - T-12 to T-1 Possession Planning & Race Card activities	60d	01-Feb-17	28-Apr-17	0d																			
WE 09 (26 - 27 Aug 2017)	WE 09 Conf 3 - T-12 Possession planning Start	80d	05-May-17	25-Aug-17	5d																			

Normal Work   
 Critical Work   
 Possession Critical   
 Mid Week Rail works   
 LOE   
 Possession Normal   
 Milestone (S...)   
 Float

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 • SYAB-CONI-1701/17

• Data Date: 10-Nov-16

Date: 09-Nov-16 (SYAB Tender Programme)    17-Jan-17 (SYAB Tender programme - Post submission)

Checked: GO    RR    Approved: RR

Activity ID	Activity Name	Duration	Start	Finish	Total float	Jan 11	Feb 2	Mar 3	Apr 4	May 5	Jun 6	Jul 7	Aug 8	Sep 9	Oct 10	Nov 11	Dec 12	Jan 13	Feb 14	Mar 15	Apr 16	May 17	Jun 18	
H-1070	WE 09 Config 11 (Roads 1 to 8) (Yard location) - T-16 Possession planning Start	0d	05-May-17	05-Aug-17	5d																			
H-1080	WE 09 - T-16 to T-1 Possession Planning & Race Card activities	80d	05-May-17	25-Aug-17	5d																			
<b>WE 10 (2 - 3 Sep 2017)</b>																								
H-1100	WE 10 Config 11 (Roads 1 to 4) (Yard location) - T-16 Possession planning Start	0d	12-May-17	01-Sep-17	0d																			
H-1110	WE 10 - T-16 to T-1 Possession Planning & Race Card activities	80d	12-May-17	01-Sep-17	0d																			
<b>WE 15 (7 - 8 Oct 2017)</b>																								
H-1200	WE 15 Config 3 - T-16 Possession planning Start	0d	16-Jun-17	05-Oct-17	0d																			
H-1210	WE 15 - T-16 to T-1 Possession Planning & Race Card activities	80d	16-Jun-17	05-Oct-17	0d																			
<b>WE 16 (14 - 15 Oct 2017)</b>																								
H-1220	WE 16 Config 11 (Roads 9 to 15) (Yard location) - T-16 Possession planning Start	0d	23-Jun-17	13-Oct-17	0d																			
H-1230	WE 16 - T-16 to T-1 Possession Planning & Race Card activities	80d	23-Jun-17	13-Oct-17	0d																			
<b>WE 18 (28 - 29 Oct 2017)</b>																								
H-1240	WE 18 Config 11 (Roads 6 to 15) (Yard location) - T-16 Possession planning Start	0d	07-Jul-17	27-Oct-17	0d																			
H-1250	WE 18 - T-16 to T-1 Possession Planning & Race Card activities	80d	07-Jul-17	27-Oct-17	0d																			
<b>WE 29 (13 - 14 Jan 2017)</b>																								
H-1320	WE 29 Config 11 (Roads 1 to 8) (Yard location) - T-16 Possession planning Start	0d	21-Sep-17	25-Jan-18	16d																			
H-1330	WE 29 - T-16 to T-1 Possession Planning & Race Card activities	80d	21-Sep-17	25-Jan-18	16d																			
<b>WE 37 (11 - 12 Mar 2017)</b>																								
H-1300	WE 37 Possession - Community Notification preparation, review & distribute to community	154d	23-Jan-17	27-Oct-17	0d																			
<b>WE 44 (29-30 Apr 2017)</b>																								
H-1350	WE 44 - Community Notification period (2 weeks pre possession)	10d	12-Apr-17	28-Apr-17	0d																			
H-1360	WE 44 Possession - Community Notification preparation, review & distribute to community	10d	29-Mar-17	11-Apr-17	0d																			
<b>WE 09 (28 - 27 Aug 2017)</b>																								
H-1200	WE 09 Possession - Community Notification preparation, review & distribute to community	20d	31-Jul-17	25-Aug-17	5d																			
H-1210	WE 09 - Community Notification period (2 weeks pre possession)	10d	14-Jul-17	11-Aug-17	5d																			
<b>WE 10 (2 - 3 Sep 2017)</b>																								
H-1270	WE 10 Possession - Community Notification preparation, review & distribute to community	20d	07-Aug-17	01-Sep-17	0d																			
H-1280	WE 10 - Community Notification period (2 weeks pre possession)	10d	21-Aug-17	01-Sep-17	0d																			
<b>WE 15 (7 - 8 Oct 2017)</b>																								
H-1300	WE 15 Possession - Community Notification preparation, review & distribute to community	20d	08-Sep-17	06-Oct-17	0d																			
H-1310	WE 15 - Community Notification period (2 weeks pre possession)	10d	08-Sep-17	21-Sep-17	0d																			
<b>WE 16 (14 - 15 Oct 2017)</b>																								
H-1320	WE 16 Possession - Community Notification preparation, review & distribute to community	10d	22-Sep-17	06-Oct-17	0d																			
H-1330	WE 16 - Community Notification period (2 weeks pre possession)	10d	15-Sep-17	13-Oct-17	0d																			
<b>WE 18 (28 - 29 Oct 2017)</b>																								
H-1350	WE 18 Possession - Community Notification preparation, review & distribute to community	10d	29-Sep-17	27-Oct-17	0d																			
H-1360	WE 18 - Community Notification period (2 weeks pre possession)	20d	29-Sep-17	13-Oct-17	0d																			
H-1370	WE 18 - Community Notification period (2 weeks pre possession)	10d	16-Oct-17	27-Oct-17	0d																			
<b>Design &amp; Engineering</b>																								
<b>Site Investigation</b>																								
D-100	Develop and Issue to TNSW Site Investigation Specific Works Documentation (Survey SWMs, Scope & Survey Requirements)	91d	30-Jan-17	30-Apr-17	119d																			
D-110	TNSW Review and Comment Initial Site Investigation Document	20d	30-Jan-17	24-Feb-17	0d																			
D-120	Develop and Issue to TNSW Site Investigation Specific Works Documentation (Survey SWMs, Scope & Survey Requirements)	5d	30-Jan-17	03-Feb-17	0d																			
D-130	TNSW Approval For Site Access (For design investigation)	15d	06-Feb-17	24-Feb-17	0d																			
<b>Disruption Survey</b>																								
D-150	Building and Road Drip Survey, Report	10d	27-Feb-17	10-Mar-17	31d																			
<b>Site Investigation &amp; Survey</b>																								
D-300	Survey Result & Report Issued	14d	25-Feb-17	10-Mar-17	24d																			
D-310	Possession - Site Investigation (Config 11 / WE 35 / Roads 9-15)	2d	25-Feb-17	26-Feb-17	0d																			
D-400	Possession - Initial OHW Survey (Config 11 / WE 35 / Roads 9-15)	2d	25-Feb-17	26-Feb-17	0d																			
D-410	Possession - Initial Truck Survey (Config 11 / WE 35 / Roads 9-15)	15d	27-Feb-17	17-Mar-17	11d																			
<b>Service Search</b>																								
D-370	Service Search Investigation & Report	15d	27-Feb-17	17-Mar-17	11d																			
<b>Geotech</b>																								
D-300	Geotechnical Investigation & Report	15d	27-Feb-17	17-Mar-17	11d																			
<b>Signalling Investigation</b>																								
D-420	Possession - Signal lighting survey & investigation (Config 11 / WE 35 / Roads 9-15)	65d	25-Feb-17	30-Apr-17	119d																			
D-470	Survey Result & Report Issued	2d	25-Feb-17	26-Feb-17	2d																			
D-510	Off track signalling correction (RR2 / Signalling control room)	5d	27-Feb-17	03-Mar-17	26d																			
D-700	Possession - On track signalling correction (Config 3 - WE 44 (Roads 1-4))	2d	29-Apr-17	30-Apr-17	2d																			
<b>Initial Design Review Panel (DRP) Presentation</b>																								
<ul style="list-style-type: none"> <li>• Data Date: 10-Nov-16</li> <li>• Page 4 of 11</li> <li>• SYAB-CON-170117</li> </ul>																								
																		Date	Revision	Checked	Approved			
																		09-Nov-16	SYAB Tender Programme	GO	RR			
																		17-Jan-17	SYAB Tender Programme - Post submission	GO	RR			

■ Normal Work  
■ Critical Work  
■ Possession Critical  
■ Possession Normal  
■ Mid Week Rail works  
■ Float  
◆ Milestones (S...)  
◆ LOE  
◆ Possession Critical  
◆ Possession Normal  
◆ Mid Week Rail works

Activity ID	Activity Name	Duration	Start	Finish	Total Float	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	
D-100	Organise Initial DRP presentation	5d	23-Jan-17	30-Jan-17	0d																			
D-110	Prepare DRP presentation material	5d	23-Jan-17	30-Jan-17	0d																			
D-120	Issue Presentation to DRP For Review	0d	31-Jan-17	31-Jan-17	0d																			
D-130	Presentation Review By DRP	3d	31-Jan-17	02-Feb-17	0d																			
D-140	Presentation Approved By DRP	0d	03-Feb-17	03-Feb-17	0d																			
D-150	Finalise DRP Presentation	6d	03-Feb-17	10-Feb-17	0d																			
D-160	Present to DRP	1d	13-Feb-17	13-Feb-17	0d																			
D-170	Present to DRP	1d	13-Feb-17	13-Feb-17	0d																			
<b>Full Design Package</b>																								
<b>Preliminary Design Review (PDR 60%)</b>																								
D-140	Develop Civil Pkg. Preliminary Design (60%)	127d	31-Jan-17	06-Jun-17	0d																			
D-250	Finalise Civil Pkg. Preliminary Design (60%)	13d	17-Feb-17	27-Feb-17	0d																			
D-260	Issue PDR Presentation For Review	13d	17-Feb-17	07-Mar-17	0d																			
D-270	PDR Presentation Review & Comment By STWG	0d	17-Feb-17	17-Feb-17	0d																			
D-280	PDR Presentation Approved By STWG	3d	17-Feb-17	21-Feb-17	0d																			
D-290	Finalise PDR Presentation	6d	22-Feb-17	01-Mar-17	0d																			
D-300	Present PDR Design to STWG	1d	02-Mar-17	02-Mar-17	0d																			
D-310	STWG Comments Addressed by LORA	3d	03-Mar-17	07-Mar-17	0d																			
<b>Design Review Panel (DRP) - Urban and Landscaping</b>																								
D-320	Prepare DRP presentation material	11d	22-Feb-17	08-Mar-17	0d																			
D-330	Issue Presentation to DRP For Review	0d	23-Feb-17	23-Feb-17	0d																			
D-340	Presentation Review By DRP	3d	23-Feb-17	27-Feb-17	0d																			
D-350	Presentation Approved By DRP	0d	28-Feb-17	28-Feb-17	0d																			
D-360	Finalise DRP Presentation	6d	28-Feb-17	07-Mar-17	0d																			
D-370	Present to DRP	1d	08-Mar-17	08-Mar-17	0d																			
<b>PDR Review</b>																								
D-380	TNSW Review Preliminary Design	20d	09-Mar-17	05-Apr-17	2d																			
D-390	Respond to TNSW Comments	15d	09-Mar-17	29-Mar-17	0d																			
D-400	Issue CDR Presentation For Review	5d	30-Mar-17	05-Apr-17	2d																			
<b>Critical Design Review (CDR 100%)</b>																								
D-410	Develop Detailed Design - CDR	32d	28-Feb-17	12-Apr-17	0d																			
D-420	Develop Detailed Design - CDR	32d	28-Feb-17	12-Apr-17	0d																			
D-430	Issue CDR Presentation For Review	13d	30-Mar-17	19-Apr-17	0d																			
D-440	Issue CDR Presentation For Review	0d	30-Mar-17	03-Apr-17	0d																			
D-450	CDR Presentation Approved	0d	04-Apr-17	04-Apr-17	0d																			
D-460	CDR Presentation Submission	6d	04-Apr-17	11-Apr-17	0d																			
D-470	Present CDR Design to STWG	1d	12-Apr-17	12-Apr-17	0d																			
D-480	STWG Comments Addressed by LORA	3d	15-Apr-17	19-Apr-17	0d																			
<b>Design Review Panel (DRP) - Urban and Landscaping</b>																								
D-490	Prepare DRP presentation material	1d	04-Apr-17	04-Apr-17	0d																			
D-500	Issue Presentation to DRP For Review	0d	05-Apr-17	05-Apr-17	0d																			
D-510	DRP Presentation Review by Principal	3d	05-Apr-17	07-Apr-17	0d																			
D-520	DRP Presentation Approved By Principal	0d	10-Apr-17	10-Apr-17	0d																			
D-530	Finalise DRP Presentation	6d	10-Apr-17	19-Apr-17	0d																			
D-540	Present to DRP	1d	20-Apr-17	20-Apr-17	0d																			
D-550	DRP Comments Addressed by LORA	3d	21-Apr-17	26-Apr-17	0d																			
<b>CDR Review</b>																								
D-710	TNSW Review Detailed Design	18d	27-Apr-17	22-May-17	0d																			
D-720	Respond to TNSW Comments	15d	27-Apr-17	12-May-17	0d																			
D-730	Issue CDR 3 Submission (submitted 1 week prior CCB)	0d	23-May-17	23-May-17	0d																			
D-740	TNSW to Review CCB Documents	5d	30-May-17	30-May-17	0d																			
D-750	CCB Meeting	15d	17-May-17	06-Jun-17	0d																			
<b>AFC</b>																								
D-750	Update and Issue AFC Documentation	15d	17-May-17	06-Jun-17	0d																			
<b>Service Relocation</b>																								
<b>Ausgrid Relocation</b>																								
D-150	Submit Application to Ausgrid	145d	07-Feb-17	01-Sep-17	16d																			
D-160	Submit Application to Ausgrid	145d	07-Feb-17	01-Sep-17	16d																			
D-200	SVAB to develop Method of Supply Scope	15d	07-Feb-17	27-Feb-17	16d																			
D-310	Design Information Package Received From Ausgrid	30d	28-Feb-17	10-Apr-17	16d																			
D-520	Develop ASP3 Design	15d	11-Apr-17	04-May-17	16d																			
D-770	Design Certification check Ausgrid	40d	05-May-17	30-Jun-17	16d																			
D-820	Submit Final Design	5d	03-Jul-17	07-Jul-17	16d																			
D-830	Design Certification Received	10d	10-Jul-17	21-Jul-17	16d																			
D-840	Assign to Submit Connection Offer	10d	24-Jul-17	04-Aug-17	16d																			
D-850	Preconstruction Meeting with ASP1 & ASP3 and Ausgrid	10d	07-Aug-17	18-Aug-17	16d																			
D-860	ASP1 Phys. Changes & Submits Dates to Ausgrid	10d	21-Aug-17	01-Sep-17	16d																			

Normal Work
 Critical Work
 Possession Normal
 Possession Critical
 Mid Week Rail works
 Milestone (S...)
 Float

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Date	Revision	Checked	Approved
09-Nov-16	SYAB Tender Programme	GO	RR
17-Jan-17	SYAB Tender programme - Post submission	GO	RR



Activity ID	Activity Name	Duration	Start	Finish	Total Float	2017	2018
						Jan	Feb
P-200	Composite Box Grids Develop Empty Document & Source & Tender Out	20d	20-Apr-17	15-May-17	7d		
P-201	Composite Box Grids Tender Return, Review & Evaluation & Place Order	15d	24-May-17	14-Jun-17	4d		
P-202	Composite Box Grids Shop Drawings Produced & Approve For Structural Steel	30d	15-Jun-17	20-Jul-17	4d		
P-203	Composite Box Grids Delivery to Site (CH61.141 - CH110.969)	2d	20-Oct-17	23-Oct-17	4d		
P-204	FRP & CIVIS	48d	20-Apr-17	28-Jun-17	59d		
P-205	FRP & CIVIS Develop Empty Document & Source & Tender Out	20d	20-Apr-17	19-May-17	34d		
P-206	FRP & CIVIS Tender Return, Review & Evaluation & Place Order	15d	24-May-17	14-Jun-17	59d		
P-207	FRP & CIVIS Shop Drawings Produced & Approve For Structural Steel	100d	15-Jun-17	28-Jun-17	59d		
P-208	FRP & CIVIS Delivery to Site	100d	20-Apr-17	20-Sep-17	26d		
P-209	Buffer Stop Develop Empty Document & Source & Tender Out	20d	20-Apr-17	19-May-17	34d		
P-210	Buffer Stop Tender Return, Review & Evaluation & Place Order	15d	24-May-17	20-Sep-17	26d		
P-211	Buffer Stop Shop Drawings Produced & Approve For Structural Steel	50d	14-Sep-17	20-Sep-17	61d		
P-212	Buffer Stop Delivery to Site	20d	24-May-17	21-Jun-17	26d		
P-213	CCTV & Security Cameras Develop Empty Document & Source & Tender Out	15d	22-Jun-17	12-Jul-17	61d		
P-214	CCTV & Security Cameras Tender Return, Review & Evaluation & Place Order	15d	13-Jul-17	02-Aug-17	61d		
P-215	CCTV & Security Cameras Shop Drawings Produced & Approve For Structural Steel	80d	31-Mar-17	20-Sep-17	26d		
P-216	CCTV & Security Cameras Delivery to Site	20d	31-May-17	28-Jun-17	26d		
P-217	Bridge Throw Screen Develop Empty Document & Source & Tender Out	15d	28-Jun-17	19-Jul-17	26d		
P-218	Bridge Throw Screen Tender Return, Review & Evaluation & Place Order	5d	14-Sep-17	20-Sep-17	26d		
P-219	Bridge Throw Screen Shop Drawings Produced & Approve For Structural Steel	80d	31-Mar-17	20-Sep-17	70d		
P-220	Bridge Throw Screen Delivery to Site	20d	31-May-17	28-Jun-17	26d		
P-221	Electronic Access Control Systems (EACS)	15d	28-Jun-17	19-Jul-17	70d		
P-222	EACS Develop Empty Document & Source & Tender Out	5d	14-Sep-17	20-Sep-17	70d		
P-223	EACS Tender Return, Review & Evaluation & Place Order	55d	31-Mar-17	19-Aug-17	56d		
P-224	EACS Shop Drawings Produced & Approve For Structural Steel	20d	31-May-17	28-Jun-17	26d		
P-225	EACS Delivery to Site	15d	28-Jun-17	19-Jul-17	56d		
P-226	Signage Develop Empty Document & Source & Tender Out	5d	10-Aug-17	15-Aug-17	56d		
P-227	Signage Tender Return, Review & Evaluation & Place Order	45d	07-Jun-17	09-Aug-17	95d		
P-228	Signage Shop Drawings Produced & Approve For Structural Steel	20d	06-Jul-17	05-Jul-17	26d		
P-229	Signage Delivery to Site	10d	27-Jul-17	09-Aug-17	95d		
P-230	Permanent Fencing and Gate	70d	15-Jun-17	20-Sep-17	70d		
P-231	Fencing and Gate Develop Empty Document & Source & Tender Out	20d	15-Jun-17	12-Jul-17	26d		
P-232	Fencing and Gate Tender Return, Review & Evaluation & Place Order	15d	13-Jul-17	02-Aug-17	70d		
P-233	Fencing and Gate Shop Drawings Produced & Approve For Structural Steel	5d	14-Sep-17	20-Sep-17	70d		
P-234	Fencing and Gate Delivery to Site	70d	15-Jun-17	20-Sep-17	36d		
P-235	Lighting	20d	15-Jun-17	12-Jul-17	26d		
P-236	Lighting Develop Empty Document & Source & Tender Out	15d	13-Jul-17	02-Aug-17	26d		
P-237	Lighting Tender Return, Review & Evaluation & Place Order	5d	14-Sep-17	20-Sep-17	26d		
P-238	Lighting Shop Drawings Produced & Approve For Structural Steel	56d	22-Jun-17	07-Sep-17	51d		
P-239	Lighting Delivery to Site	20d	22-Jun-17	19-Jul-17	51d		
P-240	GPT Develop Empty Document & Source & Tender Out	15d	20-Jul-17	09-Aug-17	51d		
P-241	GPT Tender Return, Review & Evaluation & Place Order	1d	07-Sep-17	07-Sep-17	51d		
P-242	GPT Delivery to Site	96d	07-Jun-17	19-Oct-17	45d		
P-243	Long Lead Time Items	70d	07-Jun-17	13-Sep-17	70d		
P-244	Misc Long Lead Items	30d	07-Jun-17	19-Jul-17	22d		
P-245	signaling cables / equipment	20d	07-Jun-17	05-Jul-17	12d		
P-246	Track work contractor	60d	22-Jun-17	13-Sep-17	26d		
P-247	Buffer Stop Fabrication	40d	20-Jul-17	13-Sep-17	70d		
P-248	Electronic Access Control System Coding / Programming and Manufacturing	15d	20-Jul-17	09-Aug-17	56d		
P-249	Signage Production	40d	20-Jul-17	13-Sep-17	26d		
P-250	Bridge safety Screen Manufacturing	30d	03-Aug-17	13-Sep-17	70d		
P-251	Permanent Fencing and Gate Manufacturing	30d	03-Aug-17	13-Sep-17	26d		
P-252	Lighting Production	20d	10-Aug-17	13-Sep-17	26d		
P-253	GPT Manufacturing	20d	10-Aug-17	06-Sep-17	51d		
P-254	Precast Manufacturing	50d	30-Jun-17	07-Sep-17	0d		
P-255	PC Mould Production	20d	30-Jun-17	27-Jul-17	0d		
P-256	Per 2 Precast Manufacturing	15d	28-Jul-17	17-Aug-17	0d		
P-257	Per 1 Precast Manufacturing	15d	18-Aug-17	07-Sep-17	0d		
P-258	Structural Steel Manufacturing	79d	15-Jun-17	04-Oct-17	0d		
P-259	Precure Structural Steel	30d	15-Jun-17	26-Jul-17	0d		
P-260	Structural Steel Manufacturing & Galvanising For Rail Corridor Section From CH10.969 - CH11.141	49d	27-Jul-17	04-Oct-17	0d		
P-261	Structural Steel Manufacturing & Galvanising For Regent Street Section From CH30.15 - CH61.141	49d	27-Jul-17	04-Oct-17	0d		
P-262	Structural Steel Manufacturing & Galvanising For Sydney Yard Section From CH61.141 - CH110.969	30d	15-Jun-17	19-Oct-17	4d		
P-263	Precure structural steel for composite box girders	30d	15-Jun-17	26-Jul-17	4d		
P-264	Composite Box Girders Manufacturing & Galvanising For Rail Corridor Section From CH10.969 - CH11.141	60d	27-Jul-17	19-Oct-17	4d		

Normal Work
 Critical Work
 Possession Normal
 Possession Critical
 Mid Week Rail works
 Milestone (S...)
 Float

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Date	Revision	Checked	Approved
09-Nov-16	SYAB Tender Programme	GO	RR
17-Jan-17	SYAB Tender programme - Post submission	GO	RR

Activity ID	Activity Name	Duration	Start	Finish	Total Float
<b>Construction</b>					
<b>Mobilisation / Establishment</b>					
C-170	Final Site Offices & Complete Site Set-up	77d	25-Apr-17	14-Jul-17	20d
C-180	Construct Designated Access Routes For JT Maintainers (Sydney Yard)	43d	15-May-17	14-Jul-17	14d
C-190	Establish Traffic management for Regent Street Access & Demolition works	15d	15-May-17	02-Jun-17	4d
C-270	Erasing services protection / diversion works	10d	03-Jul-17	14-Jul-17	14d
<b>Possession Works - Work site protection</b>					
C-100	Possession - SYAB Worksite Temporary Fencing & Gate (Config 3 - WE 44 (Roads 1-4))	2d	29-Apr-17	30-Apr-17	0d
C-110	Possession - Site Office Welfare and Mess Facilities (Config 3 - WE 44 (Roads 1-4))	3d	29-Apr-17	30-Apr-17	0d
C-120	Possession - Site Office Services Connection Config 3 - WE 44 (Roads 1-4)	2d	29-Apr-17	30-Apr-17	0d
C-130	Possession - Install Conduit to Sydney Yard (68 For Concrete & Water) (Config 3 - WE 44 (Roads 1-4))	2d	29-Apr-17	30-Apr-17	0d
C-140	Possession - Install Jersey Kerbs Adjacent to Future Pair 1 & 2 (Config 3 - WE 44 (Roads 1-4))	2d	29-Apr-17	30-Apr-17	0d
C-150	Possession - Install Worksite Fencing (Config 3 - WE 44 (Roads 1-4))	2d	29-Apr-17	30-Apr-17	0d
C-160	Possession - Erect Worksite Fencing (DHMain) (Config 3 - WE 44 (Roads 1-4))	2d	29-Apr-17	30-Apr-17	0d
<b>Enabling Works</b>					
C-250	Install Temp Buffer Stop & Signage (Mid week Night possession)	122d	03-Jul-17	01-Nov-17	16d
C-300	Install Ballast Ramp Across Power House Museum Siding (Mid week Night possession)	86d	03-Jul-17	08-Oct-17	21d
C-310	Remove 60m of Up Shunt Neck & Buffer Stops (Mid week Night possession)	2d	05-Jul-17	06-Jul-17	6d
C-320	Reconstruct track formation (22m) (Mid week Night possession)	2d	13-Jul-17	12-Jul-17	5d
C-330	Replace 22m of Up Shunt Neck Track & Slippers (Mid week Night possession)	2d	20-Jul-17	26-Jul-17	5d
C-350	De-Wire Regent St Shunt neck (Mid week Night possession)	2d	03-Aug-17	09-Aug-17	5d
C-400	Possession - Install New Buffer Stop (Config 3 / WE 15 / Roads 1-4)	2d	07-Oct-17	08-Oct-17	4d
C-480	Possession - Remove temporary buffer stop (Config 3 / WE 15 / Roads 1-4)	2d	07-Oct-17	08-Oct-17	4d
<b>Signalling works</b>					
C-330	Install new signalling cables for Track circuits / buffer stop relocation (Mid week nights)	44d	20-Jul-17	01-Sep-17	62d
C-500	Carry out signalling alterations / label changes / testing	5d	21-Aug-17	25-Aug-17	5d
C-510	Possession - Decommission & remove signalling equipment / cabling (Config 11 - WE 09)	2d	26-Aug-17	27-Aug-17	2d
C-520	Possession - Decommission new signalling (Config 11 - WE 09)	2d	26-Aug-17	27-Aug-17	2d
C-560	Redundant equipment / cable removal (RR2 / Sydney control room)	5d	28-Aug-17	01-Sep-17	28d
<b>Tower Crane enabling works</b>					
C-460	Flag works for Tower Crane boeing	45d	21-Aug-17	04-Oct-17	2d
C-550	Construct Tower Crane footing	8d	28-Aug-17	05-Sep-17	4d
C-670	Tower crane Footing - curing period	21d	07-Sep-17	27-Sep-17	6d
C-730	Tower crane installation	3d	28-Sep-17	04-Oct-17	2d
C-1030	Tower crane dismantle & demobilisation	3d	30-Oct-17	01-Nov-17	13d
<b>Demolition</b>					
C-200	Install Regent Street Hoarding Class B	4d	09-Jun-17	16-Jun-17	0d
C-210	Terminal/Cap Building Utilities	5d	19-Jun-17	23-Jun-17	0d
C-230	Remove Advertising Board From No.64 Regent Street	2d	19-Jun-17	20-Jun-17	3d
C-340	Erect Scaffolding	5d	26-Jun-17	30-Jun-17	0d
C-300	Building Demolition G4 & G2A	10d	03-Jul-17	14-Jul-17	0d
C-310	Building Demolition G0 & SRA & S6	15d	17-Jul-17	04-Aug-17	0d
C-370	Abment A archaeological Testing / Salvage works	10d	07-Aug-17	18-Aug-17	0d
C-410	Remove Regent Street Hoarding Class B	5d	07-Aug-17	11-Aug-17	2d
C-220	Sydney Yard Hoarding	20d	19-Jun-17	14-Jul-17	14d
C-380	Abment B archaeological Testing / Salvage works	10d	03-Jul-17	14-Jul-17	14d
<b>Services Relocation</b>					
C-360	Water and Sewer Construction/Commence	20d	07-Aug-17	01-Sep-17	6d
C-630	Tektra Relocation Works	10d	04-Sep-17	15-Sep-17	6d
C-640	Tektra Relocation Works	10d	04-Sep-17	15-Sep-17	6d
C-1050	Electrification Works	51d	18-Sep-17	07-Nov-17	8d
C-720	Ausgrid Relocation Works	5d	01-Nov-17	07-Nov-17	6d
C-730	Ausgrid Construction/Relocation Works	30d	18-Sep-17	31-Oct-17	6d
C-740	ASPI Request For Electrification - 6 weeks Pre to Electrification	0d	18-Sep-17	31-Oct-17	27d
C-750	Request For Electrification Period	31d	18-Sep-17	31-Oct-17	6d
C-800	Pre Electrification inspection - 2 weeks prior to electrification	10d	18-Oct-17	31-Oct-17	6d

Normal Work   
 Critical Work   
 LOE   
 Possession Normal   
 Possession Critical   
 Mid Week Rail works   
 Milestone (S...)   
 Float

**Legend:**  
 Normal Work   
 Critical Work   
 LOE   
 Possession Normal   
 Possession Critical   
 Mid Week Rail works   
 Milestone (S...)   
 Float

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**Data Date: 10-Nov-16**  
 • 09-Nov-16 SYAB Tender Programme - Post submission  
 • 17-Jan-17 SYAB Tender Programme - Post submission

**Revision**  
 GO  
 RR

**Checked**  
 GO  
 RR

**Approved**  
 GO  
 RR

Activity ID	Activity Name	Duration	Start	Finish	Total Float
<b>Regent Street Access</b>					
C-1040	Install stormwater pipe work & pits	6d	26-Aug-17	17-Jan-18	13d
C-1041	Construct graded drain	6d	30-Aug-17	15-Nov-17	0d
C-1070	Install Gravel/AC-Pipe drain	4d	31-Oct-17	09-Nov-17	0d
C-1360	Install Temp works and encasals for outfall connection	3d	10-Nov-17	14-Nov-17	7d
C-1370	New stormwater Drain to sit rail corridor outfall connection	5d	28-Aug-17	01-Sep-17	1d
C-520	Possession - New stormwater Drain in HV crossings along Rail corridor (crossing Regent St siding)	2d	25-Aug-17	27-Aug-17	0d
C-530	New stormwater Drain outfall connection in Rail corridor	10d	04-Sep-17	15-Sep-17	1d
C-600	Possession - New stormwater Drain outfall connection (1055hrs) (Config 11 - WE 10 (Roads 1-5))	2d	02-Sep-17	03-Sep-17	0d
C-700	New stormwater Drain installation in rail corridor drain (into construction yard boundary)	16d	13-Sep-17	20-Sep-17	1d
C-820	Construct Stormwater Attenuation Tank	15d	11-Oct-17	01-Nov-17	0d
<b>Retaining walls</b>					
C-1380	Construction North retaining wall	9d	09-Oct-17	19-Oct-17	0d
C-1390	Construction South retaining wall foundation	3d	04-Oct-17	11-Oct-17	16d
C-310	Construction North retaining wall foundation	9d	04-Oct-17	05-Oct-17	0d
C-330	Construction South retaining wall	9d	12-Oct-17	24-Oct-17	16d
<b>LV, Comms &amp; CCTV</b>					
C-1090	Construct Padmount footing	5d	10-Nov-17	16-Nov-17	6d
C-1090	Install LV & Comms conduits & Pits	6d	10-Nov-17	15-Nov-17	6d
C-1140	Install Lighting & CCTV	5d	16-Nov-17	22-Nov-17	12d
C-1160	Install & Commission Padmount transformer in rail corridor	5d	17-Nov-17	23-Nov-17	6d
C-1220	Pull LV cabling & terminals	5d	24-Nov-17	30-Nov-17	6d
C-1180	Install & Commission Padmount transformer within Regent Street drive area	37d	10-Nov-17	17-Jan-18	6d
<b>Road Construction, Furniture &amp; Infixes</b>					
C-1100	Install Palsade Fencing / Security Mesh fencing	4d	10-Nov-17	15-Nov-17	21d
C-1120	Construct Regent Street Approach Slab - Post Services Relocation (CH0 - CH30.15)	8d	16-Nov-17	27-Nov-17	0d
C-1180	Construct future security building slab	4d	11-Dec-17	14-Dec-17	6d
C-1230	Install Access side gates & 2 No.	4d	12-Dec-17	15-Dec-17	6d
C-1240	Install EAC's	8d	13-Dec-17	22-Dec-17	6d
C-1250	Kerb installation, Road construction & surfacing	4d	18-Dec-17	21-Dec-17	8d
C-1310	Install vehicle Arrestors	8d	06-Jan-18	17-Jan-18	6d
C-1330	Finish works being landscaping	135d	02-Aug-17	15-Dec-17	27d
<b>Bridge Construction</b>					
C-400	Pling Platform Prep works - Sydney Yard	20d	02-Aug-17	29-Aug-17	0d
C-400	Per 2 Pling works	3d	02-Aug-17	04-Aug-17	2d
C-420	Abutment B Pling works	5d	07-Aug-17	11-Aug-17	3d
C-440	Abutment A Pling works	3d	14-Aug-17	16-Aug-17	2d
C-470	Per 1 Pling works	3d	16-Aug-17	18-Aug-17	0d
C-540	Abutment A Pling works	2d	21-Aug-17	25-Aug-17	0d
C-550	Abutment A Pling works	2d	28-Aug-17	29-Aug-17	0d
<b>Bridge Span 1 - Rail Corridor (CH30.15 - CH61.141)</b>					
C-570	Per 1 Pile cap works	4d	28-Aug-17	06-Oct-17	0d
C-580	Abutment A Pile cap works	5d	30-Aug-17	05-Sep-17	0d
C-610	Concrete Curing Pier 1 Pile Cap	6d	02-Sep-17	08-Sep-17	2d
C-650	Concrete Curing Abutment A	10d	06-Sep-17	15-Sep-17	4d
C-690	Construct Pier 1 (CH61.141)	8d	12-Sep-17	21-Sep-17	0d
C-700	Construct Abutment A (CH30.15)	8d	20-Sep-17	29-Sep-17	0d
C-770	Per 1 concrete pile & top beam (CH61.141)	6d	22-Sep-17	29-Sep-17	0d
C-800	Concrete Curing Pier 1 infill	7d	30-Sep-17	06-Oct-17	0d
C-830	Install bridge bearings	3d	04-Oct-17	05-Oct-17	0d
C-840	Install bridge bearings	10d	07-Oct-17	16-Oct-17	21d
C-850	Possession - Install bridge girders - Abutment Ato Pier 1 (Config 3 / WE 15 (Roads 1-4))	2d	07-Oct-17	08-Oct-17	0d
C-860	Construct Bridge Deck - Abutment A and Pier 1 (Config 3 / WE 15 (Roads 1-4))	6d	09-Oct-17	16-Oct-17	15d
<b>Bridge Span 2 - Rail Corridor (CH61.141 - CH110.958)</b>					
C-910	Deliver & Preassemble Bridge Girders / Headstock assembly	2d	14-Oct-17	15-Oct-17	0d
C-940	Possession - Install Bridge girders - Pier 1 to Pier 2 (Config 11 - WE 16)	2d	14-Oct-17	15-Oct-17	0d
C-950	Possession - Install Precast Decks - Pier 1 to Pier 2 (Config 11 - WE 16)	99d	14-Aug-17	20-Nov-17	7d
<b>Bridge Span 3 - Sydney Yard (CH110.958 - CH173.511)</b>					
C-430	Per 2 Pling cap construction	5d	14-Aug-17	18-Aug-17	4d
C-450	Abutment B Pile cap works	5d	17-Aug-17	23-Aug-17	7d

Normal Work
 Critical Work
 Possession Normal
 Possession Critical
 Mid Week Rail works
 Milestone (S...)
 Float

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Date	Revision	Checked	Approved
09-Nov-16	SYAB Tender Programme	GO	RR
17-Jan-17	SYAB Tender programme - Post submission	GO	RR

Activity ID	Activity Name	Duration	Start	Finish	Total Float
C-460	Per 2 Piling cap concrete curing	10d	19-Aug-17	29-Aug-17	6d
C-500	Abutment B Pile cap concrete curing	10d	24-Aug-17	03-Sep-17	9d
C-620	Possession - Per 2 PC materials transported to SY works area (Config 11 - WE 10)	16	20-Aug-17	05-Sep-17	3d
C-500	Construct Pier 2 (CH110.969)	9d	29-Aug-17	08-Sep-17	4d
C-690	Construct Abutment B (CH30.15)	14d	05-Sep-17	25-Sep-17	4d
C-710	Per 2 concrete fill & top beam (CH110.969)	6d	11-Sep-17	18-Sep-17	12d
C-780	Concrete Curing Pier 2 fill	7d	19-Sep-17	25-Sep-17	16d
C-820	Install bridge bearings	3d	26-Sep-17	29-Sep-17	4d
C-1020	Construct Bridge Deck - Pier 2 to Abutment B	24d	28-Oct-17	20-Nov-17	7d
C-560	Possession - Install bridge box girders - Pier 2 to Abutment B (Config 11 - WE 18)	16d	30-Oct-17	20-Nov-17	5d
C-1100	Construct Anti crash barrier (Span 1)	2d	28-Oct-17	29-Oct-17	0d
C-1180	Install Safety Screens (Span 1,2,3)	8d	13-Nov-17	15-Dec-17	9d
C-1400	Construct Anti crash barrier (Span 2)	10d	30-Nov-17	10-Dec-17	9d
C-1410	Construct Anti crash barrier (Span 3)	8d	27-Nov-17	05-Dec-17	5d
C-1420	Construct Anti crash barrier (Span 3)	7d	07-Dec-17	15-Dec-17	0d
C-1430	Construct new Outfall connection	5d	07-Oct-17	29-Nov-17	0d
C-1460	Complete wall cladding	10d	16-Nov-17	26-Nov-17	0d
C-170	Possession - Load Sydney Yard With retaining wall material (Config 3 - WE 15)	2d	07-Oct-17	08-Oct-17	0d
C-900	Construct retaining walls footings	8d	09-Oct-17	18-Oct-17	1d
C-970	Construct retaining walls & install cladding	26d	16-Oct-17	20-Nov-17	0d
C-1170	Drainage works (Worksite D/E)	17d	21-Nov-17	15-Dec-17	2d
C-1420	Remove temp works and back fill outfall connection	3d	13-Dec-17	15-Dec-17	2d
C-1420	Install temp works and excavate for new outfall connection (existing 1050kPa)	5d	21-Nov-17	27-Nov-17	2d
C-1430	Construct new Outfall connection	9d	28-Nov-17	12-Dec-17	2d
C-1130	Road Construction, Furniture & Finishes	22d	16-Nov-17	19-Dec-17	0d
C-1130	Construct Sydney Yard building slab	10d	16-Nov-17	29-Nov-17	0d
C-1200	Construct Sydney Yard Approach Slab	10d	28-Nov-17	13-Dec-17	0d
C-1210	Crash barrier installation, road construction & surfacing	12d	30-Nov-17	19-Dec-17	0d
C-1300	LV, Comms & CCTV	91d	14-Oct-17	12-Jan-18	0d
C-1000	Possession - Install Track level Security Cameras & lighting - Pier 1 to Pier 2 (Config 11 - WE 18)	2d	28-Oct-17	29-Oct-17	0d
C-1250	Install LV cabling for bridge lighting (in crash barrier)	6d	14-Dec-17	21-Dec-17	0d
C-1270	Install comms cabling & terminals to CCTV	5d	14-Dec-17	20-Dec-17	0d
C-1280	Install Bridge lighting (in crash barrier)	5d	15-Dec-17	21-Dec-17	1d
C-1300	Install Bridge Deck level CCTV Cameras	5d	18-Dec-17	23-Dec-17	0d
C-1340	Complete LV & Comms cabling and terminations	5d	08-Jan-18	12-Jan-18	0d
C-960	Possession - Install Track level Security Cameras & lighting - Abutment A to Pier 1 (Config 11 - WE 16)	2d	14-Oct-17	15-Oct-17	0d
C-1290	Soft & Hard Landscaping & Furniture	15d	13-Dec-17	16-Jan-18	7d
C-1320	Road Pavement Tr in at Regent Street Entrance	5d	13-Dec-17	19-Dec-17	7d
C-1320	Complete hard / soft landscaping	10d	20-Dec-17	16-Jan-18	7d
C-1350	Demobilisation	10d	20-Jan-18	09-Feb-18	16d
C-1350	Site Demobilisation & reinstatement	10d	20-Jan-18	09-Feb-18	16d
C-1350	Testing & Commissioning	26d	11-May-17	29-Jun-18	0d
CE 11 - Signalling		120d	11-May-17	15-Sep-17	42d
CEB CGS 4.5.5 (Final Testing, Commission & Handover)		107d	11-May-17	25-Aug-17	7d
T-100	Update Project Hazard Log for CGS 4	5d	11-May-17	17-May-17	24d
T-110	Pre-Commissioning / Draft-Final DAS / SAR for CGS-4	5d	18-May-17	24-May-17	24d
T-120	Agreed Configuration Change Plan	1d	25-May-17	25-May-17	24d
T-130	Independent Professional Review (IPR) Checklist with NCR Chase-Out	5d	26-May-17	01-Jun-17	24d
T-140	Inspection & Testing Plans	5d	02-Jun-17	08-Jun-17	24d
T-150	Approved Test Strategy	1d	09-Jun-17	09-Jun-17	24d
T-160	Issue CGS-4 Documentation to TMSDW for Review	5d	13-Jun-17	03-Jul-17	24d
T-170	Respond to CGS 4.6.5 TMSDW Comments	5d	04-Jul-17	10-Jul-17	24d
T-180	CCB CGS 4.6.5 Documentation Submitted to Principal	1d	11-Jul-17	11-Jul-17	24d
T-190	CCB CGS 4.6.5 Documentation Final Review By Principal	5d	12-Jul-17	18-Jul-17	24d
T-200	CCB CGS 4.6.5 Meeting	1d	25-Jul-17	25-Jul-17	1d
T-210	CCB CGS 4.6.5 Approval	0d	25-Jul-17	25-Jul-17	1d
T-220	CGS-4.6.5 CCB Approval Received - Min. 4 Weeks Prior to Test, Commission & HO	23d	26-Jul-17	25-Aug-17	5d
Pre testing		5d	21-Aug-17	25-Aug-17	5d
T-230	Carry out signalling alterations / label changes / testing	5d	21-Aug-17	25-Aug-17	5d
T-240	Possession - Decommission & remove signalling equipment / cabling (Config 11 - WE 09)	24d	26-Aug-17	15-Sep-17	42d
T-250	Possession - Commission new signalling (Config 11 - WE 09)	2d	26-Aug-17	27-Aug-17	2d
T-260	Close out / handover documentation - Circuit book updates, etc	10d	04-Sep-17	15-Sep-17	28d
CE 2 - Sydney Yard Access Bridge		146d	06-Sep-17	29-Jan-18	0d

Normal Work
 Critical Work
 LOE
 Possession Normal
 Possession Critical
 Mid Week Rail works
 Float

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Revision  
 GO  
 RR

Checked  
 GO  
 RR

Approved



Activity ID	Activity Name	Start	Finish	Duration	Total Float	2017	2018												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
<b>CBG CGS 4 (Final Testing &amp; Commissioning)</b>																			
T-270	Update Project Hazard Log for CGS 4	06-Sep-17	12-Dec-17	96d	37d														
T-280	Pre-Commissioning/ Draft Final SAS/ SAR for CGS-4	06-Sep-17	12-Sep-17	5d	0d														
T-290	Agreed Configuration Change Plan	13-Sep-17	19-Sep-17	5d	0d														
T-300	Independent Professional Review (IPR) Checklist with NCR Close-Out	20-Sep-17	27-Sep-17	7d	0d														
T-310	Inspection & Testing Plans	28-Sep-17	05-Oct-17	5d	0d														
T-320	Approved Test Strategy	06-Oct-17	06-Oct-17	1d	0d														
T-330	Issue CSG-4 Documentation to TNSW for Review	09-Oct-17	27-Oct-17	15d	0d														
T-340	Respond to CGS 4 TNSW Comments	30-Oct-17	03-Nov-17	5d	0d														
T-350	CBG CGS 4 Documentation Submitted to Principal	06-Nov-17	06-Nov-17	1d	0d														
T-360	CBG CGS 4 Documentation Final Review By Principal	07-Nov-17	13-Nov-17	5d	0d														
T-370	CBG CGS 4 Meeting	14-Nov-17	14-Nov-17	1d	0d														
T-380	CBG CGS 4 Approval	14-Nov-17	14-Nov-17	1d	0d														
T-390	CSG-4 CCB Approval Received - Minimum 4 Weeks Prior to Testing	15-Nov-17	12-Dec-17	28d	17d														
<b>Pre testing</b>																			
T-400	Pre-test Access gates	15-Dec-17	23-Jan-18	39d	0d														
T-410	Pre-test EAC's	15-Dec-17	18-Dec-17	3d	13d														
T-430	Pre-test Vehicle Arrests	18-Dec-17	20-Dec-17	3d	11d														
T-450	Pre-test CCTV	22-Dec-17	08-Jan-18	17d	8d														
T-480	Pre-test Local lighting	15-Jan-18	17-Jan-18	2d	1d														
T-500	Comms Integration with Sydney Trains control room	19-Jan-18	23-Jan-18	4d	0d														
<b>Testing &amp; Commissioning</b>																			
T-490	Testing & Commissioning	19-Jan-18	29-Jan-18	10d	0d														
<b>Handing Over &amp; Completion</b>																			
T-440	RMS Regent Street Handover	13-Dec-17	05-Apr-18	144d	0d														
T-460	5 Days Notice to RMS for Regent Street completion and Joint inspection of LOR & RMS Regent Street inspection	13-Dec-17	19-Dec-17	5d	14d														
T-480	Develop final handover documentation & issue to RMS	20-Dec-17	22-Dec-17	3d	14d														
T-520	Principal & LOR Physical inspection / Audit	08-Jan-18	19-Jan-18	11d	14d														
<b>CMAAC Control Gate 5 (Completion and Handover)</b>																			
T-420	21 Days Notice to TNSW for Project completion / Physical Inspection	19-Dec-17	05-Apr-18	106d	0d														
T-510	Develop final documentation SAR / RAATM Report / RMS Report	19-Dec-17	22-Jan-18	34d	0d														
T-520	Principal & LOR Physical inspection / Audit	23-Jan-18	28-Jan-18	5d	0d														
T-530	Issue CMAAC CGS 5 Documentation to TNSW for Review	31-Jan-18	20-Feb-18	20d	0d														
T-560	Respond to CMAAC CGS 5 TNSW Comments	21-Feb-18	23-Feb-18	3d	0d														
T-560	CMAAC CGS 5 Documentation Submitted to CCB for Approval	26-Feb-18	26-Feb-18	1d	0d														
T-570	CMAAC CGS 5 Documentation Final Review By Principal	27-Feb-18	05-Mar-18	5d	0d														
T-580	CMAAC CGS 5 Meeting	05-Mar-18	05-Mar-18	1d	0d														
T-590	CMAAC CGS 5 Approval Received - Minimum 4 Weeks Prior to Final Completion	07-Mar-18	05-Apr-18	29d	0d														
<b>Handing Over &amp; Completion</b>																			
T-540	Defect completion & Asset Handover	12-Feb-18	02-Mar-18	15d	1d														
T-540	Defect completion & Asset Handover	12-Feb-18	02-Mar-18	15d	1d														
<b>Contingency</b>																			
W-100	Wet Weather Allowance	30-Jan-18	09-Feb-18	9d	0d														

█ Normal Work    █ Critical Work    █ Possession Normal    █ Possession Critical    █ Mid Week Rail works    █ Float

█ LOR    █ LOE    █ Possession Critical    █ Milestone (S...)  
█ Possession Normal    █ Float

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17-Jan-17	SYAB Tender programme - Post submission	GO	RR

## Schedule A6. Subcontractor Warranties

(Clause 2.2(f))

### List of Warranties Required From Subcontractors

Equipment	Beneficiary (other than Principal)	Warranty Period
<b>Structural Works</b>		
Structural concrete	Sydney Trains	25 years
Structural steel	Sydney Trains	25 years
Pot bearings	Sydney Trains	15 years
<b>Architectural Works</b>		
Architectural grade steelwork including screens, framing systems, custom balustrades, handrails, and fabricated metalwork such as access walkways	Sydney Trains	10 years
Anti-throw screens	Sydney Trains	15 years
<b>Signalling</b>		
Cables	Sydney Trains	Manufacturer's standard form of warranty
Signals	Sydney Trains	5 years
Other signalling equipment	Sydney Trains	2 years
<b>Electrical</b>		
Uninterrupted power supply including batteries	Sydney Trains	Manufacturer's standard form of warranty
Electrical equipment and fittings including light fittings	Sydney Trains	Manufacturer's standard form of warranty
Electrical and data cables	Sydney Trains	Manufacturer's standard form of warranty
<b>Services and systems</b>		
Building systems and services	Sydney Trains	Manufacturer's standard form of warranty
<b>Surface Finishes</b>		
Exterior paint finishes including painting to structural steel and clear sealer/anti-graffiti coating	Sydney Trains	10 years
Steel coatings other than paintwork including powder coating	Sydney Trains	10 years
Hot dip galvanising	Sydney Trains	20 years

## Schedule A7. Form of Warranty

(Clause 2.2(f))

This Deed Poll is made the                      day of                      20

To: **Transport for NSW (ABN 18 804 239 602)** of 22 Giffnock Avenue Macquarie Park NSW 2113 ("**Principal**")

and

**Sydney Trains (ABN 38 284 779 682)** of 477 Pitt Street Sydney NSW 2000 ("**Beneficiary**").

By: That person described in Item 1 of the Schedule ("**Warrantor**") which expression will include its successors and assigns)

### Recitals

- A. The Warrantor has supplied the items described in Item 2 of the Schedule ("**Equipment**") to the person described in **Item 3** of the Schedule ("**Contractor**") or the person described in Item 4 of the Schedule, a subcontractor of the Contractor ("**Subcontractor**"), for the works ("**Works**") being carried out by the Contractor under the contract described in Item 5 of the Schedule ("**Contract**") with the Principal.
- B. It is a requirement of the Contract that the Contractor procure the Warrantor to give the following warranties in favour of the Principal and the Beneficiary with respect to the Equipment.

### Operative

---

#### 1. Quality

The Warrantor:

- (a) warrants to the Principal and the Beneficiary that the Equipment will be to the quality and standard stipulated by the Contract and will be of merchantable quality and fit for the purpose for which it is required; and
- (b) gives the warranty more particularly set out in Item 6 of the Schedule with respect to the Equipment.

The above warranties are in addition to and do not derogate from any warranty implied by law in respect of the Equipment.

---

#### 2. Replacement

The Warrantor warrants to the Principal and the Beneficiary that it will replace so much of the Equipment as within the period described in Item 7 of the Schedule:

- (a) is found to be of a lower quality or standard than that referred to in clause 1; or

- (b) shows deterioration of such extent that in the opinion of the Principal or the Beneficiary the Equipment ought to be made good or replaced in order to achieve fitness for the purpose for which it is required, whether on account of utility, performance, appearance or otherwise.

---

### **3. Warrantor to bear cost**

The Warrantor covenants to the Principal and the Beneficiary that it will bear the cost of any work necessary to any part of the Works to enable the requirements of clause 2 to be carried out or to make good the Works afterwards.

---

### **4. Principal not liable**

The Warrantor acknowledges to the Principal and the Beneficiary that nothing contained in this deed poll is intended to nor will render either the Principal or the Beneficiary in any way liable to the Warrantor in relation to any matters arising out of the Contract or otherwise.

---

### **5. This deed poll may not be revoked**

This deed poll may not be revoked or otherwise modified without the prior written consent of the Principal and the Beneficiary.

---

### **6. Governing Law**

This deed poll is governed by the laws of the State of New South Wales.

---

### **7. Jurisdiction**

The Warrantor irrevocably submits to the non-exclusive jurisdiction of the Courts of New South Wales.

---

### **8. Enforcement of this deed poll**

For the avoidance of doubt this deed poll is enforceable by any of the Principal or the Beneficiary.

## Schedule

- Item 1: Name and Address of Warrantor
- Item 2: Equipment  
(Recital A)
- Item 3: Contractor  
(Recital A)
- Item 4: Subcontractor  
(Recital A)
- Item 5: Contract  
(Recital A)
- Item 6: Detailed Warranty of Warrantor  
(Clause 1(b))
- Item 7: Period of Years  
(Clause 2)

**[insert period]** years from the expiry of the last "Defects Rectification Period" as defined in the General Conditions (including any extension under clause 8.6 of the General Conditions).

**Executed** as a deed poll.

**Executed** by **[insert name of Warrantor]**  
(ABN **[insert ABN]**) by or in the presence of:

---

Signature of Director

---

Signature of Secretary/other Director

---


Name of Director in full

---

Name of Secretary/other Director in full

**Schedule A8. Contractor's Personnel**

(Clause 9.4)

Position	Name
Project Director	
Contractor's Representative	
Commercial Manager	
Project Manager	
Construction Manager	
Quality Manager	
Stakeholder and Community Relations Manager	
Site Manager / Site Superintendent	
Work Health and Safety Manager	
Environment Manager	
Rail Interface and Track Possessions Manager	
Design Team Lead (from the Design Consultants)	
Bridge Engineer	
Lead Architect	
Heritage Architect	
Heritage Consultant	
Safety Assurance Engineer	
Commissioning Manager – rail systems	

**Schedule A9. Form of Subcontractor Deed**

(Clause 2.2(e)(iv))

**THIS DEED POLL** is made ....., 20.....

..... ACN..... of

..... (the "**Subcontractor**").

**RECITALS:**

- A. **Transport for NSW (ABN 18 804 239 602)** of 22 Giffnock Avenue Macquarie Park NSW 2113 (the "**Principal**") has entered into a contract with Laing O'Rourke Australia Construction Pty Ltd ("**Contractor**") for the construction of the Sydney Yard access bridge and associated works ("**Works**").
- B. The Subcontractor has an agreement (the "**Subcontract**") with the Contractor for the execution and completion of the [ ] (the "**Subcontract Works**") for the Works.
- C. It is a condition of the Subcontract that the Subcontractor executes this Deed Poll.

**THIS DEED WITNESSES THAT THE SUBCONTRACTOR HEREBY COVENANTS, WARRANTS AND AGREES** with and for the benefit of the persons named in the Schedule as follows:

1. It will comply with its obligations under the Subcontract and upon completion of the Works, the Subcontract Works will satisfy the requirements of the Subcontract.
2. The persons named in the Schedule may assign or charge the benefits and rights accrued under this Deed Poll.
3. The Subcontractor:
  - (a) must if required by a written notice by the Principal to sign a deed in the form of the attached Deed of Novation (Attachment 1) with such substitute contractor as the Principal may nominate; and
  - (b) for this purpose irrevocably appoints the Principal to be its attorney with full power and authority to complete the particulars in and sign the attached Deed of Novation.
4. This Deed Poll is governed by the laws of the State of New South Wales.
5. This Deed Poll may not be revoked or otherwise modified without the prior written consent of the Principal.
6. The Subcontractor's liability in respect of a breach of a particular obligation under this Deed Poll will be reduced to the extent to which the Subcontractor has already paid money to or performed work for the Contractor in respect of that breach.

**PERSONS NAMED IN THE SCHEDULE TO THE DEED POLL**

Transport for NSW (ABN 18 804 239 602)

Sydney Trains (ABN 38 284 779 682)

**EXECUTED AS A DEED POLL.**

Executed by *[insert name]* (ABN *[insert ABN]*) by or in the presence of:

---

Signature of Director

---

Signature of Secretary/other Director

---

Name of Director in full

---

Name of Secretary/other Director in full



## Attachment 1 (to Schedule A9)

**THIS DEED OF NOVATION** is made on [ ] 20[ ] between the following parties:

1. [ ] ("**Substitute Contractor**")
2. [ ] ("**Original Contractor**")
3. [ ] ("**Subcontractor**").

### RECITALS:

- A. By deed dated [ ] (the "**Deed**") between:
- (i) **Transport for NSW (ABN 18 804 239 602)** of 22 Giffnock Avenue Macquarie Park NSW 2113 (the "**Principal**"); and
  - (ii) Original Contractor,
- the Principal engaged the Original Contractor to undertake the Works (as defined in the Deed).
- B. The Original Contractor has entered into an agreement ("**Subcontract**") with the Subcontractor for the execution and completion of the [ ] ("**Subcontract Works**") as part of the Works.
- C. The Principal has terminated the Deed and has engaged Substitute Contractor to complete the Works.
- D. The Principal and Substitute Contractor wish to effect a novation of the Subcontract.

**THIS DEED WITNESSES** that in consideration, among other things, of the mutual promises contained in this deed, the parties agree:

1. Substitute Contractor must perform all of the obligations of the Original Contractor under the Subcontract which are not performed at the date of this deed. Substitute Contractor is bound by the Subcontract as if it had originally been named in the Subcontract in place of Original Contractor.
2. The Subcontractor must perform its obligations under, and be bound by, the Subcontract as if Substitute Contractor was originally named in the Subcontract in place of Original Contractor.
3. This deed is governed by the laws of New South Wales and the parties agree to submit to the non-exclusive jurisdiction of the courts of that state.

**EXECUTED** by the parties as a deed:

***[Insert appropriate execution clauses]***

## Schedule A10. Form of Interface Agreement Deed Poll in favour of Rail Transport Agency and Transport for NSW

(Clauses 1.5(b) and 11.6(a))

This deed poll ("Deed Poll") made the \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_

**By:** Laing O'Rourke Australia Construction Pty Ltd (ABN39 112 099 000) of Level 4, 100 Arthur Street North Sydney NSW 2060 ("**Contractor**"),

**in favour of:** Sydney Trains (ABN 38 284 779 682) of 477 Pitt Street Sydney NSW 2000 ("**Rail Transport Agency**") and

Transport for NSW (ABN 18 804 239 602) a NSW Government agency and a corporation constituted by section 3C of the *Transport Administration Act 1988* (NSW), of 22 Giffnock Avenue Macquarie Park NSW 2113 ("**TfNSW**")

### Recitals

- A. Rail Transport Agency operates the commuter rail system in Sydney in the surrounds where the Works (the "**Project**") is to be undertaken by the Contractor and others.
- B. TfNSW is responsible for developing certain major railway systems and other major transport projects.
- C. TfNSW is responsible for procuring the execution and completion of the Project, and has entered into a safety interface agreement dated 28 June 2013 ("**Interface Agreement**") with Rail Transport Agency to cover the Project.
- D. Rail Transport Agency is relying on TfNSW to procure the Contractor (with others) to execute and complete the Project in accordance with the Contract to ensure that Rail Transport Agency will satisfy, among other things, its obligation to provide an operating commuter rail system.
- E. Rail Transport Agency will suffer loss if TfNSW does not procure the Contractor to execute and complete the Works in accordance with the Contract and the Interface Agreement.

**This deed witnesses that the Contractor hereby covenants, warrants and agrees** with and for the benefit of Rail Transport Agency and TfNSW as follows:

- 1. It will comply with its obligations under the Interface Agreement as specified in the Contract.
- 2. During and upon Completion of the Project, the Contractor's Activities will satisfy the requirements of the Interface Agreement.
- 3. Rail Transport Agency and TfNSW may assign or charge the benefits and rights accrued under this Deed Poll.
- 4. This Deed Poll is governed by the laws of the State of New South Wales.



- 5. This Deed Poll may not be revoked or otherwise modified without the prior written consent of Rail Transport Agency and TfNSW.
- 6. Where terms used in this Deed Poll are defined in the Contract or the Interface Agreement, those terms have the meaning given to them in the Contract or the Interface Agreement.

**Executed** as a deed poll.

**Executed by Laing O'Rourke Australia Construction Pty Ltd (ABN 39 112 099 000)** in accordance with s127 of the *Corporations Act 2001* (Cth):

\_\_\_\_\_  
Signature of Director

\_\_\_\_\_  
Signature of Secretary/other Director

\_\_\_\_\_  
Name of Director in full

\_\_\_\_\_  
Name of Secretary/other Director in full

**Schedule A11. Form of Contractor Deed Poll**

(Clauses 1.5, 11.6(a), 16.2(b) and 16.4(b)(ii))

This deed poll ("**Deed Poll**") made the                    day of                    20

**By: Laing O'Rourke Australia Construction Pty Ltd (ABN 39 112 099 000)** of Level 4, 100 Arthur Street North Sydney NSW 2060 ("**Contractor**"),

**in favour of: Sydney Trains (ABN 38 284 779 682) of 477 Pitt Street Sydney NSW 2000 and NSW Trains (ABN 50 325 560 455) of 18 Lee Street Chippendale NSW 2008 ("Owner").**

**RECITALS**

- A. Transport for NSW ("**TfNSW**") of 22 Giffnock Avenue Macquarie Park NSW 2113, is responsible for developing the **Sydney Metro City & Southwest ("Program")**.
- B. As part of the Program, TfNSW is responsible for procuring the execution and completion of the Sydney Yard access bridge and associated works (the "**Works**") on behalf of the Owner and the New South Wales Government, and has entered into a contract ("**Main Contract**") with the Contractor to achieve this.
- C. The Owner is relying on TfNSW to procure the Contractor to execute and complete the Works in accordance with the Main Contract.
- D. The Owner will suffer loss if TfNSW does not procure the Contractor to execute and complete the Works in accordance with the Main Contract.
- E. It is a condition of the Main Contract that the Contractor executes this Deed Poll.

**THIS DEED POLL WITNESSES THAT THE CONTRACTOR HEREBY COVENANTS, WARRANTS AND AGREES** with and for the benefit of the Owner as follows:

- 1. It will comply with its obligations under the Main Contract, including with respect to achieving Completion of the Works by the relevant Date for Completion.
- 2. Upon Completion of the Works, the Works will satisfy the requirements of the Main Contract.
- 3. This clause 3 only applies where the Owner is Sydney Trains or NSW Trains. In consideration of the Owner making available to the Contractor Track Possessions the Contractor agrees that it must indemnify the Owner against all costs, expenses, losses or damages suffered or incurred by the Owner in respect of any delay to rail services or late return of Track Possessions arising out of or in connection with the Contractor's Activities.

The maximum liability which the Contractor will have to the Owner pursuant to this clause for each event resulting in delay to rail services or for late return of a Track Possession will be determined on the basis of the maximum period by which any train was delayed by the event or late return of a Track Possession calculated by applying the following rates:

Period in which delay occurs	Rate per hour
During peak hours (trains having to arrive and depart Central Station between Monday to Friday (excluding public holidays) during the hours of 0600 and 0900 and 1600 and 1800 respectively)	██████████
During all other times	██████████

4. The aggregate of the Contractor's liability to the Owner under this Deed Poll and the Contractor's liability to TfNSW under the Main Contract:
  - (a) will not exceed the liability which the Contractor would have had under the Main Contract if the Main Contract had named, as Principal, the Owner and TfNSW jointly and severally; and
  - (b) is subject to the same limitations of liability, and qualifications on such limitations of liability, as are specified in the Main Contract.
5. Any provision of this Deed Poll which seeks to limit or exclude a liability of the Contractor is to be construed as doing so only to the extent permitted by law.
6. The Owner may assign or charge the benefits and rights accrued under this Deed Poll.
7. This Deed Poll is governed by the laws of the State of New South Wales.
8. This Deed Poll may not be revoked or otherwise modified without the prior written consent of the Owner.
9. Where terms used in this Deed Poll are defined in the Main Contract, those terms have the meaning given to them in the Main Contract.

**Executed** as a deed poll.

**Executed by Laing O'Rourke Australia Construction Pty Ltd (ABN 39 112 099 000)** in accordance with s127 of the *Corporations Act 2001* (Cth):

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Signature of Director

---

Signature of Secretary/other Director

---

Name of Director in full

---

Name of Secretary/other Director in full

## Schedule A12. Form of Other Contractor Deed Poll

(Clause 7.4)

This Deed Poll made the \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

In favour of: **Laing O'Rourke Australia Construction Pty Ltd** (ABN 39 112 099 000) of Level 4,  
100 Arthur Street North Sydney NSW 2060  
("Contractor")

and

**Transport for NSW** (ABN 18 804 239 602) of 22 Giffnock Avenue Macquarie Park NSW 2113  
("Principal")

Given by: **[insert details]** (ABN **[insert details]**) of **[insert details]**

("Other Contractor")

### Recitals

- A. By a contract dated **[insert date]** ("Contract") between the Principal and the Contractor, the Contractor agreed to design and construct certain works ("Works"), on the land more particularly described in the Contract (the "Site").
- B. The Other Contractor has been appointed under a Contract ("Other Contract") to undertake certain works on the Site ("Other Contractor Works").
- C. For the purposes of the *Work Health and Safety Act 2011* (NSW) and the *Work Health and Safety Regulation 2011* (NSW) (together, the "**WHS Legislation**"), the Works and the Other Contractor Works are a 'construction project' within the meaning of the WHS Legislation.
- D. Under the Contract, the Principal engaged the Contractor as principal contractor and authorised the Contractor to have management and control of the workplace for the purpose of discharging the duties imposed on a principal contractor for the construction project.
- E. Under the provisions of the Contract, the Principal is required to procure the provision of this Deed Poll from each Other Contractor that undertakes Other Contractor Works (as that term is defined in the Contract).

### This Deed Poll Provides

1. In consideration of the Contractor accepting this Deed Poll, the Other Contractor agrees that
  - (a) the Other Contractor, its subcontractors and their respective personnel while they are on the Site, will comply with Site safety regulations, any Site rules or regulations and with all directions of the Contractor with respect to work health and safety;
  - (b) the Other Contractor, its subcontractors and their respective personnel will comply in a timely manner with directions of the Contractor so that the Contractor discharges its obligations as principal contractor;

- (c) the Other Contractor, its subcontractors and their respective personnel will consult, cooperate and coordinate activities with the Contractor, the Principal and all other persons who have a work health and safety duty in relation to the same matter;
  - (d) the Other Contractor, its subcontractors and their respective personnel will comply with the work health and safety plan(s) prepared by the Contractor while on Site;
  - (e) the Contractor may exclude the Other Contractor, any of its subcontractors and their respective personnel from the Site for work health and safety reasons;
  - (f) the Contractor may direct the Other Contractor, any of its subcontractors and their respective personnel to perform or not perform certain acts for work health and safety reasons;
  - (g) where high risk construction work is to be carried out in the performance of the Other Contractor Works, the Other Contractor must:
    - (i) prepare a safe work method statement that complies with all requirements of the WHS Legislation;
    - (ii) provide a copy of the safe work method statement to the Principal and the Contractor prior to the commencement of high risk construction work;
    - (iii) review and revise the safe work method statement in accordance with the WHS Legislation;
    - (iv) ensure that the high risk construction work is carried out in compliance with the safe work method statement; and
    - (v) where so directed by the Contractor, suspend the performance of any high risk construction work;
  - (h) the Other Contractor shall in carrying out the work under the Other Contract, comply with, and ensure that all subcontractors and personnel comply with the WHS Legislation; and
  - (i) in its contracts with subcontractors, the Other Contractor will ensure that the subcontractor is obliged to give the same obligations and rights as required of the Other Contractor under this Deed Poll.
2. The Other Contractor indemnifies the Contractor against any delay, damage, expense, loss, penalty or liability suffered or incurred by the Contractor as a result of:
- (a) any failure by the Other Contractor to comply with any direction given by the Contractor in accordance with this Deed Poll; or
  - (b) any breach by the Other Contractor, any of its subcontractors or their respective personnel of:
    - (i) their respective contractual or legislative work health and safety obligations; or
    - (ii) the provisions of this Deed Poll.



- 3. This Deed Poll will be governed by and construed in accordance with the law for the time being of New South Wales.

**Executed** as a Deed Poll.

**Executed** by *[Other Contractor]* by or in the presence of:



\_\_\_\_\_  
Signature of Director

\_\_\_\_\_  
Signature of Secretary/other Director

\_\_\_\_\_  
Name of Director in full

\_\_\_\_\_  
Name of Secretary/other Director in full



## Schedule A13. Consultant Deed of Covenant

(Clause 2.2(e)(ii))

This deed poll is made the \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

To: Transport for NSW (ABN 18 804 239 602) of 22 Giffnock Avenue Macquarie Park NSW 2113 (the "**Principal**")

By: [ \_\_\_\_\_ ] ("**Consultant**")

### Recitals

- A. The Principal has engaged Laing O'Rourke Australia Construction Pty Ltd ("**Contractor**") to carry out certain works for the Principal by a contract dated [ \_\_\_\_\_ ] ("**Contract**").
- B. The Contractor has engaged the Consultant by agreement dated [ \_\_\_\_\_ ] ("**Subcontract**") to carry out the professional services to be performed under the Subcontract ("**Professional Services**") for the purposes of the performance of the Contractor's obligations under the Contract as they relate those design services.
- C. Under the Contract, the Contractor is required to procure the Consultant to execute this deed poll in favour of the Principal.

### Operative

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#### 1. Duty of Care

(a) The Consultant:

(i) warrants to the Principal that:

- A. in performing the Professional Services, it will exercise the standard of skill, care and diligence that would be expected of a consultant experienced in and expert in the provision of the type of professional services required by the Principal;
- B. the Professional Services will be fit for the intended purposes disclosed in or reasonably able to be inferred from the SWTC, which is an annexure to the Contract; and
- C. the Professional Services do not and will not infringe any patent, registered design, trademark or name, copyright or other protected right;

(ii) acknowledges that:

- A. in performing the Professional Services it will owe a duty of care to the Principal; and

- B. it is aware that the Principal will be relying upon the skill and judgment of the Consultant in performing the Professional Services and the warranties given by the Consultant in this deed poll; and
- (iii) must act in good faith and in the best interests of the Principal and promptly advise the Principal about any matter in which the Consultant has been instructed by the Contractor to provide the Professional Services in a manner which is, or may result in an outcome which is, not in accordance with the requirements of the Contract, including without limitation:
  - A. where the Contractor's instructions in relation to design are not consistent with the Contract or may result in the Works not being fit for their intended purpose; or
  - B. where the Contractor's instructions require the Consultant to issue a certificate where the conditions for the issue of that certificate under the Contract have not been satisfied.
- (b) The Consultant must:
  - (i) fully cooperate with each other consultant and contractor engaged by the Principal ("**Other Contractor**");
  - (ii) carefully coordinate and integrate the Professional Services with the services and work carried out by each Other Contractor;
  - (iii) carry out the Professional Services so as to minimise any interfering with, disrupting or delaying, the services and work carried out by each Other Contractor;
  - (iv) without limitation, provide whatever advice, support and cooperation is reasonable to facilitate the due carrying out of the services and work being provided by each Other Contractor;
  - (v) ensure title to and intellectual property (including any patent, registered design, trademark or name, copyright or other protected right) in or in relation to the Professional Services will vest upon its creation for the purposes of the Contract in the Principal;
  - (vi) obtain an assignment to the Principal from any third party who owns any intellectual property right in the Professional Services;
  - (vii) if any intellectual property rights in or in relation to documents, designs and computer programs created for the purposes of the Contract is not capable of being vested in the Principal because the Consultant itself does not own, and is unable at a reasonable cost to obtain ownership of, those rights, provide to the Principal an irrevocable licence to use that Intellectual Property, by sub-licence from the Consultant or direct licence from a third party; and
  - (viii) ensure that the intellectual property created for the purposes of the Contract is not used, adapted or reproduced other than for the purposes of the Contract

without the prior written approval of the Principal (which will not be unreasonably withheld, but may be given subject to terms and conditions).

- (c) The Consultant must indemnify the Principal from and against:
- (i) any liability to or claim by any other person; and
  - (ii) all claims against, and costs, expenses, losses and damages,
  - (iii) suffered or incurred by the Principal arising out of, or in any way in connection with:
  - (iv) the Consultant's breach of a term of, or warranty under, this deed poll; or
  - (v) any actual or alleged infringement of any patent, registered design, trademark or name, copyright or other protected right.

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## 2. Notices

- (a) Any notices contemplated by, or arising out of or in any way in connection with, this deed poll must be in writing and delivered to the relevant address or sent to the facsimile number shown below (or to a party's new address or facsimile number which that party notifies to the others):
- (i) to the Principal: 22 Giffnock Avenue Macquarie Park NSW 2113  
Fax: (02) 8265 9501
  - (ii) to the Consultant: **[Note to be completed prior to execution of this deed poll]**  
Fax: **[Note to be completed prior to execution of this deed poll]**
- (b) A notice sent by post will be taken to have been received at the time when, in due course of the post, it would have been delivered at the address to which it is sent.
- (c) A notice sent by facsimile will be taken to have been received on the next day after the day shown on the transmission slip showing the facsimile number of the party to whom it is addressed in accordance with clause 2.1, which is not a Saturday, Sunday or public holiday in New South Wales.
- (d) If the Consultant is a foreign company (as defined in the *Corporations Act*), the Consultant must within 14 days of the date of this deed poll:
- (i) appoint a local process agent acceptable to the Principal as its agent to accept service of process under or in any way in connection with this deed poll; and
  - (ii) obtain the process agent's consent to the appointment.

The appointment must be in a form acceptable to the Principal and may not be revoked without the Principal's consent.

### 3. Miscellaneous

- (a) This deed poll will be construed in accordance with the law of the State of New South Wales and the Consultant irrevocably submits to the jurisdiction of the Courts of that State.
- (b) This deed poll may not be revoked or otherwise modified without the prior written consent of the Principal.

#### Schedule

[INSERT DESCRIPTION OF PROFESSIONAL SERVICES] as more particularly described in the Subcontract.

**Executed** as a deed poll.

**Signed Sealed and Delivered** )  
 by the Consultant ) .....  
 [ ] by or in the presence of: ) (Signature)

.....  
 (Signature of Witness)

.....  
 (Name of Witness in Full)

## Schedule A14. Deed of Novation (Principal, Contractor and Subcontractor)

(Clause 2.2(g))

**THIS DEED OF NOVATION** is made on [ ] between the following parties:

1. **Transport for NSW (ABN 18 804 239 602)** of 22 Giffnock Avenue Macquarie Park NSW 2113 ("**Principal**")
2. **Laing O'Rourke Australia Construction Pty Ltd ABN 39 112 099 000** of Level 4, 100 Arthur Street North Sydney NSW 2060 ("**Contractor**"); and
3. [ ] ABN [ ] of [ ] ("**Subcontractor**").

### Recitals

- A. By agreement dated [ ] (the "**Subcontract**"), the Principal engaged the Subcontractor to, and the Subcontractor agreed to, undertake certain works for the Principal (the "**Subcontract Works**").
- B. By agreement dated [ ] (the "**Contract**"), the Principal engaged the Contractor to, and the Contractor agreed to, undertake certain works for the Principal, which includes the Subcontract Works.
- C. Under the Contract and the Subcontract, the Contractor and the Subcontractor must enter into this deed when the Principal requires them to do so.
- D. Subject to this deed, the Subcontractor agrees to accept the Contractor in place of the Principal for the performance of all the obligations of the Principal and to release completely and discharge the Principal from all of its obligations under the Subcontract and from all claims and demands in respect of it.

**THIS DEED WITNESSES** that in consideration, among other things, of the mutual promises contained in this deed, the parties agree:

1. The Subcontractor must perform its obligations under, and be bound by, the Subcontract as if the Contractor was originally named in the Subcontract as the Principal.
2. The Subcontractor:
  - (a) releases and forever discharges the Principal from its obligations under the Subcontract and from all claims and demands in respect of the Subcontract; and
  - (b) accepts the liability of the Contractor in place of the liability of the Principal in respect of the Subcontract.
3. The Contractor must perform all the obligations of the Principal under, and be bound by, the Subcontract as if the Contractor were originally named in the Subcontract as the Principal.
4. Upon the execution and exchange of this deed:



- (a) the Principal must release any securities given to it by the Subcontractor in accordance with the Subcontract;
- (b) the Subcontractor must give the Contractor security in the same form and for the same amounts as any security required by the Subcontract; and
- (c) the Subcontractor must ensure that the Contractor is appropriately noted on all relevant insurance policies as required by the Subcontract.

5. This deed is governed by the laws of New South Wales and the parties agree to submit to the nonexclusive jurisdiction of the courts of that state.

**EXECUTED** by the parties as a deed:  
**Executed by Transport for NSW (ABN 18 804 239 602)** in the presence of:

\_\_\_\_\_  
Signature of Witness

\_\_\_\_\_  
Signature of Authorised Delegate

\_\_\_\_\_  
Name of Witness in full

\_\_\_\_\_  
Name of Authorised Delegate in full

**Executed by Laing O'Rourke Australia Construction Pty Ltd (ABN 39 112 099 000)** in accordance with section 127 of the *Corporations Act 2001* (Cth):

\_\_\_\_\_  
Signature of Director

\_\_\_\_\_  
Signature of Secretary/other Director

\_\_\_\_\_  
Name of Director in full

\_\_\_\_\_  
Name of Secretary/other Director in full

**Executed by [ ] ABN [ ]** by or in the presence of:

\_\_\_\_\_  
Signature of Director

\_\_\_\_\_  
Signature of Secretary/other Director

\_\_\_\_\_  
Name of Director in full

\_\_\_\_\_  
Name of Secretary/other Director in full

**Schedule A15. Not used**

**Schedule A16. Deeds of Disclaimer**

(Clause 1.1, 3.6(b))



This deed poll is made by:

**Laing O'Rourke Australia Construction Pty Limited** (ACN 112 099 000) registered in 100 Arthur Street, North Sydney NSW 2060 incorporated in February of 2005 (Tenderer)

in favour of:

**Transport for NSW** (ABN 18 804 239 602), a NSW Government agency, and a corporation constituted by section 3C of the *Transport Administration Act 1988* (NSW), of 22 Giffnock Avenue Macquarie Park NSW 2113 (TfNSW),

in respect of the tender for the design and construction of the Sydney Yard access bridge and associated works (**SYAB Works**) for the Sydney Metro City & Southwest project (**Sydney Metro City & Southwest**).

1. In consideration of TfNSW inviting the Tenderer to submit a Tender for the SYAB Works in accordance with the Request for Tenders (**Tender Documents**) which is to be provided to it, the Tenderer:
  - a) warrants that it will not rely upon the Tender Documents as being proper, adequate, suitable and/or complete for the purposes of enabling it to perform the design and construction obligations which the Tenderer will be required to perform if it enters into any contract(s) with TfNSW and/or others with respect to the SYAB Works (**Project Contracts**);
  - b) warrants that it will make its own independent evaluation of the Tender Documents' adequacy, accuracy, suitability and completeness for the purposes of enabling the Tenderer to perform the obligations which the Tenderer will be required to perform if it enters into any Project Contracts, and it will base the price which it bids as part of its Tender upon its own independent evaluations;
  - c) acknowledges that no representation or warranty (express or implied) has been or is made by TfNSW (or by anyone on its behalf) to the Tenderer that the Scope of Works and Technical Criteria and any other specifications or drawings included in the Tender Documents will represent a completed or suitable design or that they will be suitable for design and /or construction purposes;
  - d) acknowledges that:
    - (i) TfNSW will provide it with the Information Documents and Materials;
    - (ii) the Information Documents and Materials:
      - A. are provided by TfNSW for the information only of the Tenderer; and
      - B. do not form part of the Tender Documents and will not form part of any contract with respect to the SYAB Works;

- (iii) TfNSW does not owe any duty of care or other responsibility to the Tenderer with respect to the Information Documents and Materials;
  - (iv) to the extent that TfNSW is not the author or source of any of the Information Documents and Materials it merely passes those documents on to the Tenderer and does not adopt those documents;
  - (v) TfNSW:
    - A. is not responsible for; and
    - B. makes no representation or warranty in respect of,  
  
the contents of the Information Documents and Materials including the accuracy, adequacy, suitability or completeness of any reports, data, test results, samples, reports or geotechnical investigations, opinions, recommendations, findings or other information contained in the Information Documents and Materials;
  - (vi) where any information or document is referred to and incorporated by reference in any Information Documents and Materials, the Tenderer should not rely upon any summary of the information or document which appears in the Information Documents and Materials;
  - (vii) no representation or warranty (express or implied) has been made by TfNSW (or by anyone on its behalf) to the Tenderer that the Information Documents and Materials are accurate, adequate, suitable or complete for any purpose connected with the SYAB Works or Sydney Metro City & Southwest including the preparation of its Tender and the performance of any obligations which the Tenderer will be required to perform if it enters into any Project Contracts with respect to the SYAB Works; and
  - (viii) it will have the opportunity during the tender period and subsequently to itself undertake and to request others to make further enquiries and investigations relating to the subject matter of the Information Documents and Materials and for this purpose must have regard to the acknowledgments, warranties and releases in this deed poll in undertaking its own enquiries and investigations and in requesting further enquiries and investigations;
- e) warrants that:
- (i) it will prepare its Tender and (if its Tender is successful) enter into Project Contracts in respect of the SYAB Works based on its own investigations, interpretations, deductions, information and determinations including (without limitation) its own independent evaluation of the accuracy, adequacy, suitability and completeness of the Information Documents and Materials for the purposes of the SYAB

Works and Sydney Metro City & Southwest including the preparation of its Tender and the performance of any obligations which the Tenderer will be required to perform if it enters into any Project Contracts in respect of the SYAB Works; and

- (ii) it will not in any way rely upon:
  - A. the Information Documents and Materials; or
  - B. the accuracy, adequacy, suitability or completeness of the Information Documents and Materials,

for any purpose in connection with the SYAB Works or Sydney Metro City & Southwest, including for the purposes of preparing its Tender or entering into any Project Contracts in respect of the SYAB Works;

- f) acknowledges and agrees that:
  - (i) TfNSW will be providing the Information Documents and Materials to the Tenderer in reliance upon the acknowledgements and warranties contained in this deed poll;
  - (ii) if TfNSW accepts its Tender, TfNSW will be accepting its Tender and entering into Project Contracts in reliance upon the acknowledgements and warranties contained in this deed poll; and
  - (iii) TfNSW will not be liable to the Tenderer upon any Claim (to the extent permitted by law) arising out of or any way in connection with:
    - A. the provision of, or the purported reliance upon, or use of, the Information Documents and Materials by the Tenderer or any other person associated with the Tender to whom the Information Documents and Materials are disclosed by the Tenderer; or
    - B. a failure by TfNSW to provide any information to the Tenderer;
- g) irrevocably releases and indemnifies TfNSW from and against:
  - (i) any Claim against TfNSW by, or liability of TfNSW to, any person; or
  - (ii) (without being limited by clause 1(g)(i)) any costs, losses or damages suffered or incurred by TfNSW,arising out of or in connection with:
  - (iii) the provision of, or the purported reliance upon, or use of, the Information Documents and Materials by the Tenderer or any other person to whom the Information Documents and Materials are disclosed by the Tenderer; or

- (iv) the Information Documents and Materials:
    - A. being relied upon; or
    - B. otherwise being used in the preparation of any information or document, including any information or document which is "misleading or deceptive" or "false and misleading" (within the meaning of those terms in sections 18 and 29 (respectively) of the *Competition and Consumer Act 2010* (Cth), or any equivalent provisions of State or Territory Legislation),  
  
by the Tenderer or any other person to whom the Information Documents and Materials are disclosed by the Tenderer; and
  - h) irrevocably releases and indemnifies TfNSW from and against any Claim arising out of or in connection with any breach by the Tenderer of this deed poll.
2. In consideration of TfNSW agreeing to provide the Tenderer with the Tender Documents and the Information Documents and Materials (in this clause 2 jointly called "Confidential Documents"), the Tenderer:
- a) acknowledges and agrees that the Confidential Documents are:
    - i) owned by TfNSW; and
    - ii) confidential and secret;
  - b) warrants that it will not:
    - i) copy or otherwise reproduce in any form or medium the contents of the Confidential Documents (or any part of them) or otherwise cause, permit or allow the Confidential Documents (or any part of them) to be copied or reproduced in any form or medium;
    - ii) disclose the contents of the Confidential Documents (or any part of them) or otherwise cause, permit or allow the Confidential Documents (or any part of them) to be disclosed; or
    - iii) use the contents of the Confidential Documents (or any part of them) or otherwise cause, permit or allow the Confidential Documents (or any part of them) to be used;
- other than:
- iv) for the purpose of its Tender;
  - v) where the Tenderer enters into any Project Contract, as permitted by the applicable Project Contract; or
  - vi) as required by law or as otherwise permitted by TfNSW; and

- c) warrants that it will comply with all instructions provided by TfNSW regarding the Confidential Documents and that upon the earlier of:
- i) a demand being made by TfNSW; or
  - ii) the Tenderer's involvement in Sydney Metro City & Southwest ceasing, it will either:
  - iii) deliver to TfNSW; or
  - iv) with TfNSW's prior written consent, destroy or erase,

all of the Confidential Documents in the possession, power or control of that Tenderer and all copies made of them (including originals and copies in any form, whether hard copy, electronic or otherwise), and if any part of the Confidential Documents cannot be detached from valuable equipment, that Tenderer must erase them, and that, where it has passed any Confidential Documents to other persons or entities, it will ensure that those persons and entities will comply with the same obligations in respect of the Confidential Documents (and any copies thereof) as are imposed on the Tenderer by this clause.

If requested by TfNSW, the Tenderer must ensure that satisfactory evidence is provided to TfNSW that all Confidential Information has been delivered to TfNSW or destroyed or erased in compliance with this clause.

Nothing in this clause 2 will in any way limit clause 1 of this deed poll.

3. In this deed poll,

**Claim** includes (without limitation) any claim, action, demand or proceeding:

- a) under, arising out of, or in connection with any Project Contracts;
- b) arising out of, or in connection with, any task, thing or relationship connected with the SYAB Works or Sydney Metro City & Southwest; or
- c) otherwise at law or in equity including (without limitation):
  - i) under statute;
  - ii) in tort for negligence or otherwise, including (without limitation) negligent misrepresentation; or
  - iii) for restitution, quantum meruit or unjust enrichment.

**Information Documents and Materials** means any information, data or document which is:

- a) referred to in the Schedule A (if applicable);

- b) issued or made available by, or on behalf of, TfNSW or the NSW Government to the Tenderer in connection with the Invitation for Expressions of Interest, Request for Tenders, the SYAB Works or Sydney Metro City & Southwest (including, without limitation, anything issued or made available through TfNSW's website) and which at the time of issue (or being made available) is expressly classified or stated to be an "Information Document" or "Information Documents and Materials";
- c) issued or made available by, or on behalf of, TfNSW or the NSW Government to the Tenderer in connection with the Invitation for Expressions of Interest, Request for Tenders, the SYAB Works or Sydney Metro City & Southwest (including, without limitation, anything issued or made available through TfNSW's website), but which is not intended to form part of the Invitation for Expressions of Interest or Request for Tenders (as applicable), regardless of whether or not it is expressly classified or stated to be an "Information Document" or "Information Documents and Materials"; or
- d) referred to or incorporated by reference in any Information Documents and Materials, whether issued or made available:
  - i) on, before or after the Closing Date and Time for Tenders; or
  - ii) on, before or after the date of execution of any Project Contract, other than any document which TfNSW is obliged by the terms of a Project Contract to provide to the Tenderer and the Tenderer is expressly obliged by the terms of the Project Contract to rely on.

***Invitation for Expressions of Interest*** means the invitation for expressions of interest in relation to the SYAB Works issued by TfNSW on 27 April 2016.

***Request for Tenders*** means the request for tenders in relation to the SYAB Works.

- 4. If the Tenderer is more than one person, each person making up the Tenderer is jointly and severally bound by the terms of this deed poll.
- 5. This deed poll cannot be revoked or otherwise modified without the prior written consent of TfNSW.
- 6. This document operates as a deed poll and is enforceable against the Tenderer in accordance with its terms by TfNSW, despite TfNSW not being a party to this deed poll.
- 7. This deed poll is governed by the laws of New South Wales, Australia.



Transport  
for NSW



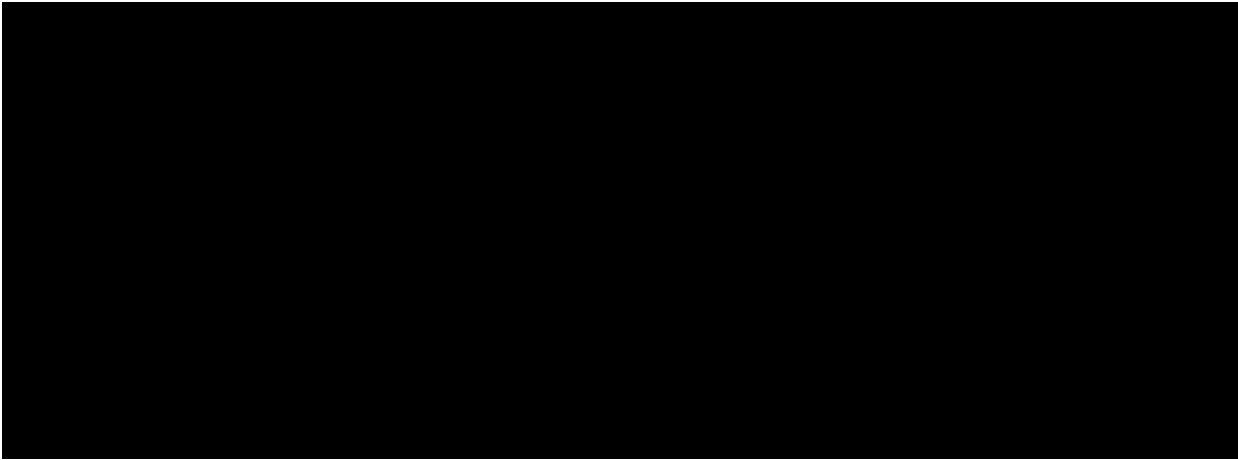
SYDNEY METRO – CITY & SOUTHWEST  
SYDNEY YARD ACCESS BRIDGE PROJECT  
Contract Number: SMCSW-141  
DEED OF DISCLAIMER

---

Date: 23rd day of August 2016

Executed as a deed poll

Executed by Laing O'Rourke Australia  
Construction Pty Limited ABN 39 112 099  
000 in accordance with s127 of the  
*Corporations Act 2001 (Cth)*;



## Schedule A

**Sydney Yard Access Bridge, Invitation for Expression of Interest, Information Documents**

01	Information Documents
01.01	Section 1 – Sydney Metro Environment and Sustainability Policy
01.02	Section 2 – Sydney Metro Project Safety Management Manual
01.03	Section 2 – TfNSW Safety Policy
01.04	Section 3 – Geotechnical and Site Information
01.05	Section 3 – Site Information Existing Services
01.06	Section 4 - Indicative Project Program
01.07	Section 5 – Preliminary Worksite Drawings
01.08	Section 6 - Indicative Concept Drawing Elevation
01.09	Section 6 - Indicative Concept Drawing Plan
01.10	Section 7 – Proposed Risk Allocation for the Sydney Yard Access Bridge contract
01.11	Section 8 - Interactive Process Guide
01.12	Section 8 - Interactive Process Guide
01.13	SYAB EOI Registrants briefing 11th May 2016



## Schedule A17. Information Documents and Materials

(Clauses 1.1, 3.6)

The Information Documents and Materials set out below are located in the Sydney Yard access bridge data room.

Data Room Reference	Document
01.01	Section 1 – Sydney Metro Environment and Sustainability Policy
01.02	Section 2 – Sydney Metro Project Safety Management Manual
01.03	Section 2 – TfNSW Safety Policy
01.04	Section 3 – Geotechnical and Site Information
01.05	Section 3 – Site Information Existing Services
01.06	Section 4 - Indicative Project Program
01.07	Section 5 – Preliminary Worksite Drawings
01.08	Section 6 - Indicative Concept Drawing Elevation
01.09	Section 6 - Indicative Concept Drawing Plan
01.10	Section 7 – Proposed Risk Allocation
01.11	Section 8 - Interactive Process Guide
01.12	Section 8 - Interactive Process Guide
01.13	SYAB EOI Registrants briefing 11th May 2016
01.14	Tenderer Proposed Changes to SYAB Contract Terms
01.14.01	Tender Proposed Changes to SYAB Contract Terms Revision 1
<b>01.15</b>	<b>Sydney Metro - SYAB - Interactive Process Guide - Final RFT version</b>
01.15.01	Sydney Metro - SYAB - Interactive Process Guide - Final RFT version
01.15.02	Sydney Metro - SYAB - Interactive Process Guide - Final RFT version
01.15.03	Sydney Metro - SYAB - Interactive Process Guide - Final RFT version Revision 1.1 (clean)
01.15.04	Sydney Metro - SYAB - Interactive Process Guide - Final RFT version Revision 1.1 (clean)
01.15.05	Sydney Metro - SYAB - Interactive Process Guide - Final RFT version Revision 1.1 (Mark Up)
<b>01.16</b>	
01.16	SYAB - Information Documents - Descriptions
01.16.01	SYAB - Information Documents - Descriptions Revision 1

Data Room Reference	Document
01.16.02	SYAB - Information Documents - Descriptions Revision 2
01.16.03	SYAB - Information Documents - Descriptions Revision 3
01.16.04	SYAB - Information Documents - Descriptions Revision 4
<b>01.17</b>	<b>Not used</b>
<b>01.18</b>	<b>B - Signalling</b>
01.18.01	B1 SYD_YARD_Signalling Plan
01.18.02	B2 CB RR Sydney Relay Room Book 2 of 9
01.18.03	B3 Sydney Signal Box West Yard Book A
01.18.04	B4 Sydney Signal Box West Yard Book B
01.18.05	B5 Sydney Signal Box West Yard Book C
01.18.06	B6 CB03 Pneumatic System Book 3 of 6 Sydney Yard
<b>01.19</b>	
01.19.01	C1 OHW Design Layout Existing EL0043878 Rev B
01.19.02	C2 1500 Volt Sectioning Diagram EL0358425 Issue L2
01.19.03	C3 Overhead Wiring Modernisation program Layout Drawings – CAD model
<b>01.20</b>	<b>D - Survey and Services</b>
01.20.01	D1 Sydney Central Yard Section 3_DSS_F2008-11899
01.20.02	D2 Prince Alfred Services Tunnel Existing Drawings
01.20.03	D3 Prince Alfred Services Tunnel Survey
01.20.04	D4 Sydney Yard OHW Survey
01.20.05	D5 Sydney Yard Perway Survey
01.20.06	D6 GIS services utilities data
01.20.07	D7 Prince Alfred Sub Cable Tunnel RFI
01.20.08	D8 Survey drawing files
01.20.09	D9 FBX - SKYLINE FOR CENTRAL SYAB
01.20.09.01	CENTRAL_SUBSET_17082016
01.20.09.01.01	Central_10cm_LAS_MGA
01.20.09.01.02	Central_3cm_True_Ortho
01.20.09.01.03	Central_FBX_Subset
01.20.09.02	TILE_+003_+003 Revision 1

Data Room Reference	Document
01.20.09.02.01	Tile_+003_+003 revision 1
01.20.09.02.02	Tile_+003_+003 revision 1
01.20.09.02.03	Tile_+003_+003_0 revision 1
01.20.09.03	TILE_+003_+004 Revision 1
01.20.09.03.01	Tile_+003_+004 revision 1
01.20.09.03.02	Tile_+003_+004 revision 1
01.20.09.03.03	Tile_+003_+004_0 revision 1
01.20.09.04	TILE_+003_+005 Revision 1
01.20.09.04.01	Tile_+003_+005 revision 1
01.20.09.04.02	Tile_+003_+005 revision 1
01.20.09.04.03	Tile_+003_+005_0 revision 1
01.20.09A	D9 FBX - SKYLINE FOR CENTRAL SYAB V2
01.20.09A.01	D9 FBX - Skyline for Central SYAB v2
01.20.10	D10 CENA36-CP0255A - Cable Route Information SYAB-CENA36
01.20.10A	D10A CENA36-CP0255B - Cable Route Information SYAB-CENA37
01.20.11	Overhead Wiring Modernisation Program Layout Drawings - CAD Model
<b>01.21</b>	<b>E - Sydney Trains &amp; TfNSW Information</b>
01.21.01	E1 Proposed OHW isolations for possession
01.21.02	E2 Sydney Yard - Possession Configurations
01.21.02A	E2 Sydney Yard - Possession Configurations V2
01.21.03	E3 Diesel Train Schedule
01.21.04	E4 Draft TfNSW letter to Sydney Trains regarding Mortuary Station Future Events
01.21.05	E5 CCTV and ESS System Upgrade and Maintenance
01.21.06	E10 Sydney Terminal Arrival and Departures in Config 02 08 and 14
01.21.07	E11 Sydney Terminal arrival and departures in a Config 07 and 09
01.21.08	E6 Infrastructure Handover and Certification Form
01.21.09	E7 Possession Notice 10
01.21.10	E8 Network Access Manual Volume 1
01.21.11	E9 Network Access Manual Volume 2
01.21.12	E12 CCR 13100_Gate 2_SYAB - Accepted with Conditions

Data Room Reference	Document
01.21.13	E13 Sydney Light Rail - Eddy Avenue Access
<b>01.22</b>	<b>F - Electrical</b>
01.22.01	F1 Prince Alfred SS to St Leonards SS HV Reticulation Diagram EL 0035421 Issue H9
01.22.02	F2 Metropolitan Area Prince Alfred SS to Lewisham SS 11kV System Diagram EL 0027675 Issue K1
01.22.03	F3 2kV Signalling & Lighting Feeders Central - Macdonaldtown - Erskineville Reticulation Diagram EL 0044777
<b>01.23</b>	<b>Not used</b>
<b>01.24</b>	<b>H - Geotechnical &amp; Contamination</b>
01.24.01	H1 - Appendix A - Long Section sketch
01.24.02	H2 - Appendix B - GDR
01.24.02A	H2 Appendix B - Geotechnical Data Report
01.24.03	H3 - Appendix C - SYAB historical data
01.24.04	H4 - Appendix E - Contamination
01.24.04A	H4 Appendix E - Contamination Assessment Report
01.24.05	H6 Draft Groundwater monitoring report - NWRLSRT-GDS-SRT-GE-REP-000051.00.01.REV
<b>01.25</b>	<b>I - General Information</b>
01.25.01	I1 SAMPLE Workforce Profile and Gap Plan
01.25.02	I2 Sydney Metro City & Southwest EIS
01.25.03	I3 Central Station Conservation Management Plan June 2013
01.25.04	I4 Sydney Metro Presentation - Heritage Working Group
01.25.05	I5 Sydney Metro Presentation - Station Working Group
01.25.06	I6 Aerial view of Sydney Yard Access Bridge Worksites (on photo)
01.25.06A	I6 Aerial view of Sydney Yard Access Bridge Worksites (on photo)
01.25.07	I7 Workforce and Industry Participation Strategy Draft V3
01.25.08	I8 58 Regent St - Hazmat Pre-demolition Survey Report
01.25.09	I9 SYAB PRELIMINARY Work Stage Specific Archaeological Method Statement
01.25.10	I10 Technical Interactive - SYAB Briefing - 28 September 2016
01.25.11	I11 Indicative Project Engineering Matrix
01.25.12	SM PS-SG-001 Program Safety Assurance Plan

<b>Data Room Reference</b>	<b>Document</b>
01.25.13	SYAB - Tenderer Briefing Final 9 September 2016
01.25.14	Sydney Light Rail - Eddy Avenue Access
<b>01.26</b>	<b>J - Reference Design</b>
01.26.01	J1 Central Station - Sydney Yard Access Bridge Report Reference Design NWRLSRT-PBA-SCS-EN-REP-000016
01.26.02	Appendix A - Reference Design Drawings
01.26.03	J3 Project Coordination Model
01.26.04	J4 SYAB visualisations
01.26.05	NWRLSRT-PBA-SCS-SU-REP-000001 - Sydney Yard Access Bridge Sustainability Report_Reference Design
01.26.06	J6 SYAB Possession works staging assessment assumptions based on Reference Design and Updated Possessions at 29 Sept 2016
01.26.07	J5 SYAB Possession works staging assessment based on Reference Design and Updated Possessions at 29 Sept 2016
<b>1.27</b>	<b>Technical Interactives</b>
01.27.01	Technical Interactive - SYAB Briefing - 28 September 2016
<b>01.28</b>	
01.28	CCR 13100_Gate 2_SYAB - Accepted with Conditions
<b>01.29</b>	
01.29	Construction and Commissioning Programme for Lee St Substation works by PSU
<b>01.30</b>	
01.30	DRAFT ACHAR Sydney Metro Chatswood to Sydenham 2 September2016_clean_appendices
<b>01.31</b>	
01.31	GEN-NWRLSRT-JRH-NWR-GEN-000076-DRAFT ACHAR Sydney Metro Chatswood to Sydenham 2 September 2016_clean
<b>Not in Data Room</b>	<b>Other Documents</b>
	SYAB Regent Street Interface: Power Point Presentation (refer QID 1020)
	Sydney Yard – Schematic C8 and suburban yard (refer QID 1998)

Schedule A18. Not used

## **Schedule A19. Reliance Letters**

(Clauses 1.1 and 3.7)

**Attachment 1: Reliance letter from RPS Australia East Pty Ltd**



**Sydney Office**

Level 9, 17 York Street, GPO Box 4401, Sydney NSW Australia 2001  
T +61 2 9248 9800 F +61 2 9248 9810 E [sydney@rpsgroup.com.au](mailto:sydney@rpsgroup.com.au) W [rpsgroup.com.au](http://rpsgroup.com.au)

**19<sup>th</sup> August, 2016**

Laing O'Rourke Australia Construction Pty Ltd;  
ABN 39 112 099 000,  
Level 4, Innovation Place, 100 Arthur Street,  
North Sydney NSW 2060.

**RE: SYDNEY METRO CITY & SOUTHWEST (PROJECT)  
RELIANCE LETTER**

- 1 RPS, Australia East Pty Ltd, have been engaged by Transport for NSW (**Principal**) to provide land surveying services (**Survey Data**) in relation to the Sydney Metro Northwest and Sydney Metro City & Southwest Project (**Services**).
- 2 We have prepared the following Survey Data in accordance with the scope of Services set out in the Services Brief dated 29<sup>th</sup> February, 2016, a copy of which is attached at Appendix 1: The purpose of the surveys was to assist TfNSW in various planning and reference design proposals for the City & Southwest Metro Project. Dates of the RPS surveys and accuracies of data have been qualified within the RPS drawing files.
  - a) All Survey Data is on the following coordinate/datum system
    - Mapping Grid of Australia (MGA)
    - Australian Height Datum (AHD)
      1. Digital, 3D drawing files reflecting the topographic mapping prepared by photogrammetric methodologies from oblique aerial imagery (Drawing file reference NWRLSRT-RPS-SCS-SR-DWG-000011/PR124856-34 Aerial – Central Station South (160729).dwg).
      2. Digital, 3D drawing files of surface services indicators (manholes, power poles etc) prepared from conventional field survey for verification of services within the Regent Street roadway and footpaths fronting the entry/aggress access way for the SYAB. Verification of services within this drawing file to Class C as defined within the Australian Standard (Drawing file reference NWRLSRT-RPS-SCS-SR-DWG-000011/PR124856-34 Central Station Detail Survey (160803).dwg).
      3. Verification of subsurface services not found by survey investigations but prepared from dbyd to Class 'D' as defined within the Australian standard (Drawing file reference NWRLSRT-RPS-SCS-SR-DWG-000011/PR124856-34 Central Station Regent Street DBYD Services. dwg).
      4. Extract of Sydney Trains, Central Yards, D.S.S. features and level surveys covering the prescribed SYAB investigation area. RPS have carried out a co-ordinate transformation to convert the original ISG co-ordinate system to MGA (Drawing file reference NWRLSRT-RPS-SCS-SR-DWG-



MGA (Drawing file reference NWRLSRT-RPS-SCS-SR-DWG-000011/PR124856-34 Central Station Yard-DSS\_F2008-11899-MGA-COMplete.dwg).

5. Drawing file aggregating information profiled in 1, 2, 3, 4 above (Drawing file reference NWRLSRT-RPS-SCS-SR-DWG-000011/ PR124856-34-001B Central Station Regent Street, dwg; NWRLSRT-RPS-SCS-SR-DWG-000011/PR124856-34-001B Central Station Regent Street.txt).
  6. Aero 3D Pro modelling and 'fbx' files covering the SYAB investigation areas. (Drawing file reference NWRLSRT-RPS-SCS-SR-DWG-000013/FBX-Skyline for Central SYAB - Survey Extent WO34)
- 3 As requested by the Principal, you and your related bodies corporate (**You**) as at the date of this letter may use and rely on the Survey Data as if the Survey Data was expressly addressed in favour of You.
  - 4 We assume no responsibility to You to update the Survey Data in respect of anything that occurs or of which we become aware after the date noted on the Survey Data. In providing this letter, we are not reaffirming the Survey Data.
  - 5 We have acted solely in accordance with the instructions of the Principal in preparing the Survey Data and have considered only the interests of the Principal in doing so. The Survey Data may not necessarily address all or any of the specific concerns, purposes, requirements or interests of You or any other third party.
  - 6 The Survey Data has been prepared in accordance with the Services Brief and on the basis of the assumptions and qualifications accompanying the Survey Data. The Survey Data is strictly limited to the Services Brief and does not extend by implication or otherwise to any other matter or interpretation. We disclaim any duty of care to You, other than in relation to the Survey Data prepared in accordance with the Services Brief. We have not been instructed to advise you or to provide any services to You and we have no fiduciary relationship with You in relation to any matter addressed in the Survey Data or otherwise, other than the express reliance relationship arising from this letter.
  - 7 The contents of the Survey Data are limited to the time the Survey Data was prepared (such time being after [the final inspection of the relevant Project sites] and no earlier than [one month] before the date of the Survey Data). We take no responsibility for any inaccuracies in the Survey Data which have arisen due to changes or works at the Project sites since the Survey Data was prepared (such time being after [the final inspection of the relevant Project sites] and no earlier than [one month] before the date of the Survey Data),
  - 8 The right for You to rely on the Survey Data pursuant to this letter is provided subject to You keeping the Survey Data strictly confidential and not disclosing the Survey Data to any other person or organisation without our prior written consent, except to people or organisations with a specific need to have access to the Survey Data and such disclosure is:
    - a) in the ordinary course of business (including disclosure to auditors and to financial, accounting, technical, environmental, survey and legal advisers) on the basis that any person to whom or organisation to which the Survey Data




disclose the Survey Data to any other person;

- b) if required by law, regulation, the rules of any stock exchange, the requirements of a regulatory or self-regulatory body, authority or committee or if required in accordance with an official directive or request (whether or not having the force of law) and with which responsible financiers and companies generally comply with in carrying on their business or it is good practice for responsible financial services firms and companies to comply with; and
  - c) in connection with any actual or threatened claim, investigation or litigation or any agreement or debt between You and the Principal or in connection with this letter.
- 9 This letter is addressed to You solely for the benefit of You as at the date of this letter. It takes effect immediately upon the date the letter is signed by ourselves. You have the benefit of and may enforce this deed poll even though You are not a party to it. This letter and the Survey Data may not be relied upon by any other person or party without our prior written consent.
- 10 If anything in the Survey Data is inconsistent with the terms of this letter, the terms of this letter will prevail.
- 11 This letter, and our relationship, is governed by and is to be interpreted in accordance with the laws of New South Wales.

Executed and delivered as a Deed Poll by John Tompson

Executed as a deed poll in accordance with  
Section 127 of the *Corporations Act 2001*

A large, solid black rectangular redaction box covers the bottom half of the page, obscuring all text and graphics that would otherwise be present.

### Principal General Correspondence

Reference No: NWRLSRT-NWR-RPS-P\_GEN-000014  
Project Title: Sydney Rapid Transit Project

Date: 29 February 2016 Response required by: 08 March 2016  
To: [REDACTED] RPS Group  
CC: [REDACTED] North West Rail Link  
[REDACTED] North West Rail Link  
From: [REDACTED] North West Rail Link  
Subject: WO34 - Central Station - Topographical Survey

[REDACTED]  
It is proposed to vary the Services in accordance with clause 16.2 of the Professional Services Contract No. 00013/10466 - TfNSW - Land Surveying Services. To that end RPS is requested to develop a Work Order (WO 34) describing the scope, deliverables, cost and timeframe to undertake the following:

With respect to the attached plan outlining the extent of an area required for topographical survey at Central Station, RPS is requested to undertake a survey of the key above ground features located within the boundary marked in blue. The survey area requested includes the Regent Street Access Bridge, Belmore Park ring main shaft, construction site compound areas and more broadly the area associated with the Central Footprint.

It is anticipated that this survey will be produced based on the previously captured aerial data via photogrammetry.

Topographic survey to spatially locate and map:

- Site spot levels and contours at 0.25m contour intervals
- Position of cadastral boundaries from dcdb overlay & upgraded from SACM in areas where modelling has been carried out
- Road carriageway alignment and infrastructure details (kerb lines, medium strips, traffic lights, footpaths etc.)
- Significant street furniture & structures
- Vegetation survey. All significant trees within immediate station box precincts will be located.
- Building footprint and roof profiles and awning extents
- Locate all building entries (pedestrian, fire escape and vehicle) within station site extents – off street entry locations and widths.

	Design Series:	
Discipline:	Design Lots:	Location:
Originator's Reference No.:		

**Attachment 2: Reliance letter from Golder Associates Pty Ltd**

20 January 2017

Project No. 1650773-049c-L-Rev2

Laing O'Rourke Australia Construction Pty Ltd  
Level 4,  
Innovation Place,  
100 Arthur Street,  
North Sydney NSW 2060

**SYDNEY METRO CITY & SOUTHWEST (PROJECT) – SYDNEY YARD ACCESS BRIDGE  
RELIANCE LETTER**

Dear Sir/ Madam

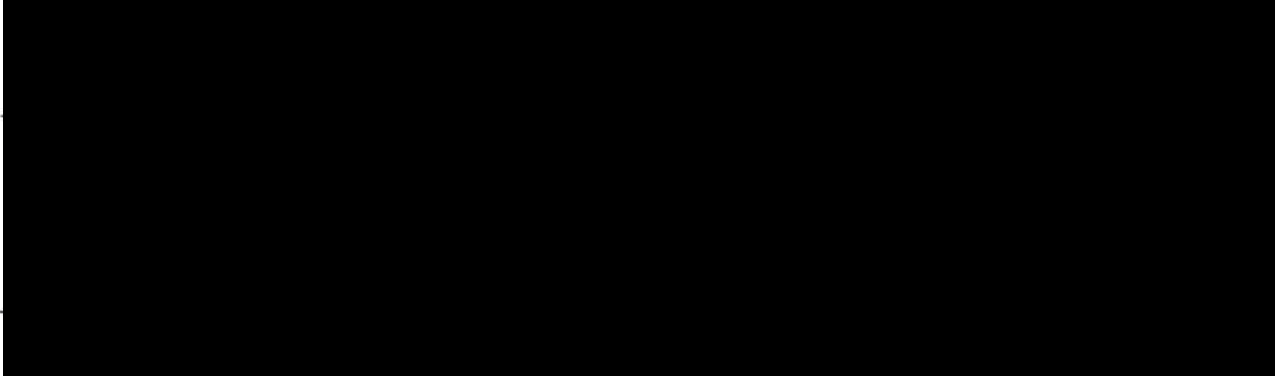
- 1 We, GOLDER ASSOCIATES PTY LTD, have been engaged by Transport for NSW (**Principal**) to provide, lead and coordinate the provision of site investigations (geological and hydro geological) and testing to support the development of a detailed characterisation of the geological, terrain and subsurface conditions along the proposed route for the Sydney Metro City and Southwest project (**Services**).
- 2 We have carried out due diligence investigations and collected the Factual Information in accordance with the scope of Services set out in the Services Brief dated April 2016, a copy of which is attached at Appendix 1 and subsequent variations to the scope. The Factual Information is outlined within the reports (**Reports**) as listed below:
  - i. Borehole logs (Revision B) for SRT\_BH042, 044, 045, 046, 074 and 074A.
  - ii. Results of borehole imaging for SRT\_BH045.
  - iii. Geotechnical laboratory test data on soil and rock samples from the above referenced boreholes.
  - iv. Soil Contamination test data on samples from the above referenced boreholes.
- 3 As requested by the Principal, you and your related bodies corporate (**You**) as at the date of this letter may use and rely on the Factual Information in the Reports as if the Reports were expressly addressed to be in favour of You.
- 4 We assume no responsibility to You to update the Reports (including the Factual Information within the Reports) in respect of anything that occurs or of which we become aware after the date of issue of the Reports. In providing this letter, we are not restating the Reports.



- 5 We have acted solely in accordance with the instructions of the Principal in preparing the Reports and have considered only the interests of the Principal in doing so. The Reports (including the Factual Information within the Reports) may not necessarily address all or any of the specific concerns, purposes, requirements or interests of You or any other third party.
- 6 The Reports (including the Factual Information within the Reports) have been prepared in accordance with the Services Brief and on the basis of the assumptions and qualifications set out in the Reports. The Reports are strictly limited to the Services Brief and do not extend by implication or otherwise to any other matter or interpretation. We disclaim any duty of care to You, other than in relation to the Factual Information in the Reports prepared in accordance with the Services Brief. We have not been instructed to advise You or to provide any services to You and we have no fiduciary relationship with You in relation to any matter addressed in the Reports or otherwise, other than the express reliance relationship arising under this letter.
- 7 The Factual Information within the Reports is limited to the time of drafting (such time being after the final inspection of the relevant Project sites and no earlier than [two calendar months] before the date of the Reports). We take no responsibility for any inaccuracies in the Reports which have arisen due to changes or works at the Project sites since the Reports were drafted (such time being after the final inspection of the relevant Project sites and no earlier than [two calendar months] before the date of the Reports).
- 8 The right for You to rely on the Factual Information in the Reports pursuant to this letter is provided subject to You keeping the reports strictly confidential and not disclosing the Reports to any other person or organisation without our prior written consent, except to people or organisations with a specific need to have access to the Factual Information in the Reports and such disclosure is:
- i. in the ordinary course of business (including disclosure to auditors and to financial, accounting, technical, environmental, survey and legal advisers) on the basis that any person to whom or organisation to which the Reports are disclosed maintains the Reports in the strictest confidence and do not disclose the Reports to any other person;
  - ii. if required by law, regulation, the rules of any stock exchange, the requirements of a regulatory or self-regulatory body, authority or committee or if required in accordance with an official directive or request (whether or not having the force of law) and with which responsible financiers and companies generally comply with in carrying on their business or it is good practice for responsible financial services firms and companies to comply with;
  - iii. in connection with any actual or threatened claim, investigation or litigation or any agreement or debt between You and the Principal or in connection with this letter.
- 9 This letter is addressed to You solely for the benefit of You as at the date of this letter. It takes effect immediately on the date the letter is signed by us. You have the benefit of and may enforce this deed poll even though You are not a party to it. This letter and the Reports may not be relied on by any other person without our prior consent in writing.
- 10 If anything in the Reports is inconsistent with the terms of this letter, the terms of this letter will prevail.
- 11 This letter, and our relationship, is governed by and is to be interpreted in accordance with the laws of New South Wales.
- 12 You are aware and agree that the limitation on our liability contained in Clause 26 of the Professional Services Contract No. 00013/10701 for the provision of the Services between the Principal and us (a copy of which is enclosed herewith) forms part of this Reliance Letter and applies jointly and severally to the Principal, You and any other person or persons to which reliance upon the

Report is extended by us at the request of the Principal on the same or similar terms to this Reliance Letter.

**Executed** as a deed poll in accordance with



LP/GKS:ER/gs

Attachments: Services Brief Ver 1.0 dated April 2016  
PSC 00013/10701

c:\users\gscholay\documents\sydney metro 2016\syab reliance letter\_draft.docx

## **Professional Services Contract No.00013/10701: Geotechnical Services**

Between:

Transport for NSW (Principal)

And

Golder Associates Pty Ltd (Service Provider)

Dated 27 April 2016

### **Clause 26**

#### **26 LIMITATION OF LIABILITY**

(a) Subject to clauses 26(b) and 26(c), the Service Provider's liability to the Principal in contract, tort (including negligence) or otherwise under this Agreement is limited to the amount stated in the Contract Particulars.

(b) The Service Provider's liability is unlimited in circumstances where bodily injury or death of a person results as a consequence of an act or omission of the Service Provider.

(c) The limitation of liability in clause 26(a) will not apply to any liability:

(i) any liability to the extent to which the Service Provider is (or will be) entitled to be indemnified pursuant to an insurance policy in respect of that liability, up to the amount required pursuant the relevant policy of insurance under this Agreement;

(ii) any liability for which, but for a failure by the Service Provider to comply with its obligations under this Agreement or under an insurance policy, the Service Provider would have received payment or been indemnified under an insurance policy effected in accordance with this Agreement, up to the amount required pursuant the relevant policy of insurance under this Agreement; or

(iii) which arises from any fraud, wilful misconduct or criminal conduct by the Service Provider or any of its employees, servants or agents including the Key People.

### **Contract Particulars**

**Limit of Service Provider's Liability:** \$20 million  
(clause 26)





Transport  
for NSW



# Services Brief

## Sydney Metro

### City & Southwest – Geotechnical Investigations

<b>Date</b>	April 2016
<b>Author</b>	City & Southwest Project, Transport for NSW
<b>Revision</b>	5.1
<b>Status</b>	Contract

# Contents

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## Glossary & Dictionary of Terms

API	Aerial Photographs Interpretation.
AS	Australia Standards
CAD	Computer Aided Design.
CAR	Contamination Assessment Report
CBD	Central Business District.
CD	Commencement Date means date at which the Services begin.
CCR	Configuration Change Request.
CEMP	Construction Environmental Management Plan required to be prepared by the Service Provider under section 4.1.7.
COB	Close of Business
Contract Documentation	means the documents that will form part of the awarded construction contracts.
Dept of Transport NSW or DoT	Division of the Government service established by the Transport Administration Amendment Act 2010
Design Manual	means the design manual required to be prepared by the Service Provider under section 4.1.10.
Draft Business Requirements Specification	means the Second Harbour Crossing Business Requirements Specification dated July 30 2013 and Western Extension Business Requirements Specification dated July 30 2013], Based on the NWRL Business Requirements Specification NWRL-10013-R-SA-00044-v1.0-Business Req Spec dated 27 August 2013 as may be updated by the Principal from time to time and notified to the Service Provider.
ECS	Electronic Collaboration System.
EMR	Environmental Management Representative
GBR	Geotechnical Baseline Report
GDR	Geotechnical Data Report
gINT	Geotechnical software package data format
GIR	Geotechnical Interpretative Report
IMP	means the Interface Management Plan referred to in section 4.1.90
IMS	means the Sydney Metro Integrated Management System, as set out in NWRL 010-SG-001.
Interim Review	means the design review process described in section 2.9 under the heading "Interim Review".
Information Documents	Documents not forming part of this RFT.
Interrelated Projects	means the projects described in section 1.3

IPT	means the integrated project team as described in section 3.
IPT Project Office	means the project office referred to in section 3.
ISO	International Organisation for Standards
ISRM	International Society for Rock Mechanics
LTTMP	means the NSW Long Term Transport Master Plan.
Management Plan	means each of the Services Management Plan, Safety Management Plan, Risk Management Plan, Mobilisation Plan, Construction Environmental Management Plan, Interface Management Plan, Incident Management Plan, Geotechnical Investigation Plan, and Document Management Plan.
NATA	National Association of Testing Authorities
NWRL	North West Rail Link.
Principal or TfNSW	means Transport for NSW.
PSC	Professional Services Contract
REF	Review of Environmental Factors
Review and Approval matrix	means a matrix of issues requiring review and approval.
RSMP	Risk & Safety Management Plan
Safety Management Plan	means the safety management plan required to be prepared by the Service Provider under section 4.1.4.
Safety Management System	means the system described in section 2.1.6
SI units	International System of Units
SMP	means the services management plan required to be prepared by the Service Provider under section 4.1.1.
SRF	means Sydney's Rail Future as set out in section 1.2.
Stage Gate	means the design review process described in section 2.9 under the heading "Stage Gate".
SWMS	means the Safe Work Method Statement described in Appendix D
Sydney Metro City & Southwest	Means all packages for the proposed metro railway between Chatswood and Bankstown, including the Sydney Metro Harbour Crossing.
Sydney Trains	means the entity which is the rail infrastructure and rollingstock operator and maintainer in the greater Sydney suburban area.
T1 Line	means the Sydney Trains T1 Line, previously the North Shore & Western Line.
TAP	means TfNSW's "Transport Access Program".
XPT	means an express passenger train.
WPT	Water Pressure Testing

# 1 Introduction

This Services Brief is presented in four sections as follows:

1	Introduction	Provides an introduction to Sydney Metro, including Sydney Metro Northwest and Sydney Metro City & Southwest.
2	Scope of Services	Details the Services to be provided under this engagement; and outlines the key deliverables.
3	Service Provider's Team	Details the skills and experience of the team members required from the Service Provider and how they will engage with the Principal in the delivery of the Services.
4	Management of Services and General Processes	Details the strategies and management plans required to deliver the Services; and sets out the requirements for assuring the delivery of the Services.

## 1.1 Transport for NSW

Transport for NSW (TfNSW) - (referred to in this Services Brief as the Principal) takes the lead on all policy and planning functions of the former TNSW, Ministry of Transport & Infrastructure, Sydney Trains, Roads and Maritime Services, Sydney Ferries and the Public Transport Ticketing Corporation. Further details on TfNSW are provided at [www.transport.nsw.gov.au](http://www.transport.nsw.gov.au).

Transport for NSW is responsible for improving the customer experience, planning, program administration, policy, regulation, procuring transport services, infrastructure and freight. Transport operating agencies have been freed up to focus on service delivery – providing safe, reliable, clean and efficient transport services.

TfNSW is the entity that enters into contracts with the private sector for the delivery of all aspects of Sydney Metro as well as any future extensions of the metro rail network.

## 1.2 Sydney Metro - NSW Government priority projects

A new stand-alone railway network, Sydney Metro is the solution to clearing the city's public transport bottlenecks and will deliver a quality of rail service never before seen in Australia.

Working together with major upgrades to the T1 Western Line, Sydney Metro will deliver the capacity to increase the number of trains entering the CBD across the entire Sydney railway system from 120 to about 200 in the busiest hour of the day.

This means the railway network across greater Sydney will have room for an extra 100,000 train customers an hour in the peak.

## Sydney Metro, City and Southwest

The fully automated, state-of-the-art Sydney Metro network will have the capacity to operate 30 trains an hour through the CBD in each direction – a train every two minutes each way.

Sydney Metro has two core components:

- Sydney Metro Northwest (formerly known as the North West Rail Link), between Rouse Hill and Chatswood. The project is more than half complete, with tunnelling about to finish. Sydney Metro Northwest will open in the first half of 2019 and deliver fast, safe and frequent services between Rouse Hill and Chatswood.
- Sydney Metro City & Southwest will extend metro rail between Chatswood and Bankstown, including a new crossing beneath Sydney Harbour. There will be new railway stations in the CBD and lower North Shore as well as the upgrade and conversion of the current rail line between Sydenham and Bankstown. Sydney Metro City & Southwest is expected to open in 2024.

The project will now deliver seven new metro stations at Crows Nest, Victoria Cross (North Sydney), Barangaroo, Martin Place, Pitt Street, Central Station and Waterloo.

The planning process has started with the State Significant Infrastructure application lodged for the Chatswood to Sydenham section.

Technical and environmental studies for this section of the project is currently underway and will form part of an Environmental Impact Statement (EIS), which is expected to go on public exhibition in mid-2016.

This will be followed by an EIS for the Sydenham to Bankstown upgrade in late 2016.

Major construction on the project is expected to commence in 2017 with the first tunnel boring machine in the ground before the end of 2018.

### 1.3 Naming protocols

As occurs in most major infrastructure projects, the names of individual components can evolve over time, reflecting the differing phases in development of the project.

New title	Previous title
Sydney Metro	Sydney Rapid Transit (SRT)
Sydney Metro Northwest	North West Rail Link
Sydney Metro City & Southwest	Sydney Rapid Transit (SRT)
Chatswood to Sydenham	Sydney Harbour Rapid Transit Crossing
Sydenham to Bankstown	Western extension to Bankstown
Metro rail (generic term)	Rapid transit rail (generic term)
Sydney Metro Northwest	Stage Three of Sydney's Rail Future
Sydney Metro City & Southwest	Stages Four and Five of Sydney's Rail Future



Sydney Metro Trains Facility	Rapid Transit Rail Facility
------------------------------	-----------------------------

## 1.4 Strategic context

### 1.4.1 Sydney's Rail Future

In June 2012, the NSW Government announced Sydney's Rail Future, the long-term plan to modernise Sydney's trains.

The Sydney's Rail Future plan is an integral component of the government's Long Term Transport Master Plan. Both components of Sydney Metro form substantial stages in the Sydney's Rail Future plan.

Stages 1 and 2 of Sydney's Rail Future relate to a range of service, capacity and infrastructure improvements to the current Sydney rail network.

Sydney Metro Northwest is Stage Three of Sydney's Rail Future. Sydney Metro City & Southwest, including the Sydney Harbour Metro crossing and the new rail line beneath the Sydney CBD is Stage Four with the conversion of the Bankstown Line included in Stage Five.

### 1.4.2 NSW 2021

Sydney Metro will help the NSW Government to meet the priorities and objectives of NSW 2021 – the Government's 10-year plan. It is a substantial commitment for the Long Term Transport Master Plan for the State and will remain a significant element of metropolitan and regional planning.

Metro rail, with its ability to move more people more quickly than any other form of transport ever seen in Sydney will make a major contribution towards addressing these critical strategic challenges:

- Maintaining Sydney's economic growth.
- Better linking key centres across Sydney's Global Economic Corridor with modern, fast, high capacity public transport.
- Accommodating Sydney's growing population in a manner that enhances the city's status as Australia's global city.
- Improving poor transport access to, from and within the north west
- Making Sydney a more sustainable city.

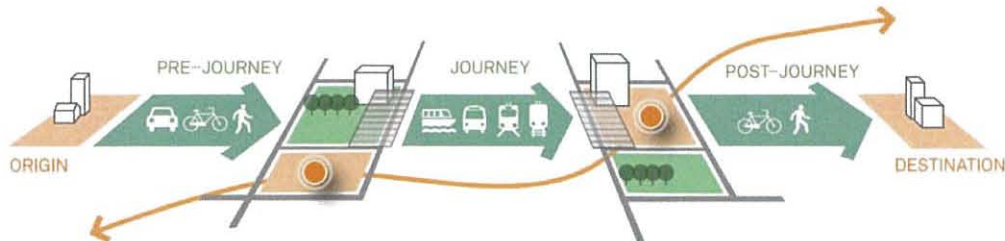
## 1.5 Meeting customer needs

Transport for NSW (TfNSW) places the customer at the centre of all planning and ensures that transport customer's needs, preferences and opinions are paramount in decision-making, planning activities and operations.

## Sydney Metro, City and Southwest

As part of this, Sydney Metro is being designed and delivered to meet the needs of customers for their entire 'door to door' journey from origin to destination. Figure 1.1 outlines this philosophy.

Sydney Metro's future customers will include communities living in areas near project construction activities and TfNSW also expects the private sector partners to create positive relationships with the community throughout the duration of the projects.



The customer "door to door" journey

## 1.6 Sydney Metro Northwest

### Project Overview

Sydney Metro Northwest is Australia's largest public transport project currently under construction and a priority infrastructure investment for the NSW Government.

Sydney Metro Northwest is more than half way complete. The 36km line will open in the first half of 2019 with 13 metro stations and a metro train every four minutes in the peak, or 15 trains an hour.

It will be the first fully automated metro rail system in Australia.

Sydney Metro Northwest will deliver eight new railway stations and 4,000 commuter car parking spaces to Sydney's growing north west.

Over the coming decades, an extra 200,000 people will move into the region, taking its population above 600,000.

Sydney Metro Northwest will deliver, for the first time, a reliable public transport service to a region that has the highest car ownership levels per household in Australia.

Customers will benefit from a metro train every four minutes in the peak.

This 'turn up and go' service means there is no need for a timetable.

Sydney's new generation of fast, safe and reliable single deck trains will be rolled out on the Sydney Metro Northwest first, with the highest levels of customer safety including constant CCTV monitoring and platform screen doors to improve safety on platforms.

The project includes the construction of twin 15 km tunnels from Bella Vista to Epping – Australia's longest rail tunnels. It also includes construction of a 4 km skytrain viaduct and the conversion of the Epping to Chatswood railway exclusively to the new metro rail system.

Construction of Sydney Metro Northwest is now well advanced, with two of the project's four tunnel boring machines (TBMs) finishing their job to build Australia's longest ever railway tunnels. All tunnelling is now almost 90 per cent complete.

Sydney Metro is the first Australian transport project to use four TBMs at the same time.

## 1.7 Sydney Metro Northwest project objectives

The NSW Government is committed to delivering an integrated and affordable transport system for the people of north west Sydney.

Our objectives are to:

- a) Ensure customer needs are met through provision of a safe, high quality, integrated and affordable transport service;
- b) Link existing communities and new growth areas in North West Sydney with jobs and services in the global economic corridor (Macquarie Park – Chatswood – North Sydney – CBD);
- c) Deliver a transport service that has been informed by engagement with communities and stakeholders and represents value for money;
- d) Improve transport network reliability by facilitating a shift from road to rail for trips to and from the north west, to reduce bus and road congestion and improve amenity in the Sydney CBD;
- e) Contribute to environmental and social sustainability by improving liveability and minimising impacts on the environment, stakeholders and the community; and
- f) Support the Government's challenge to accommodate population growth in the North West by increasing the potential for a range of housing and employment opportunities.

## 1.8 Sydney Metro Northwest key features

Key features include:

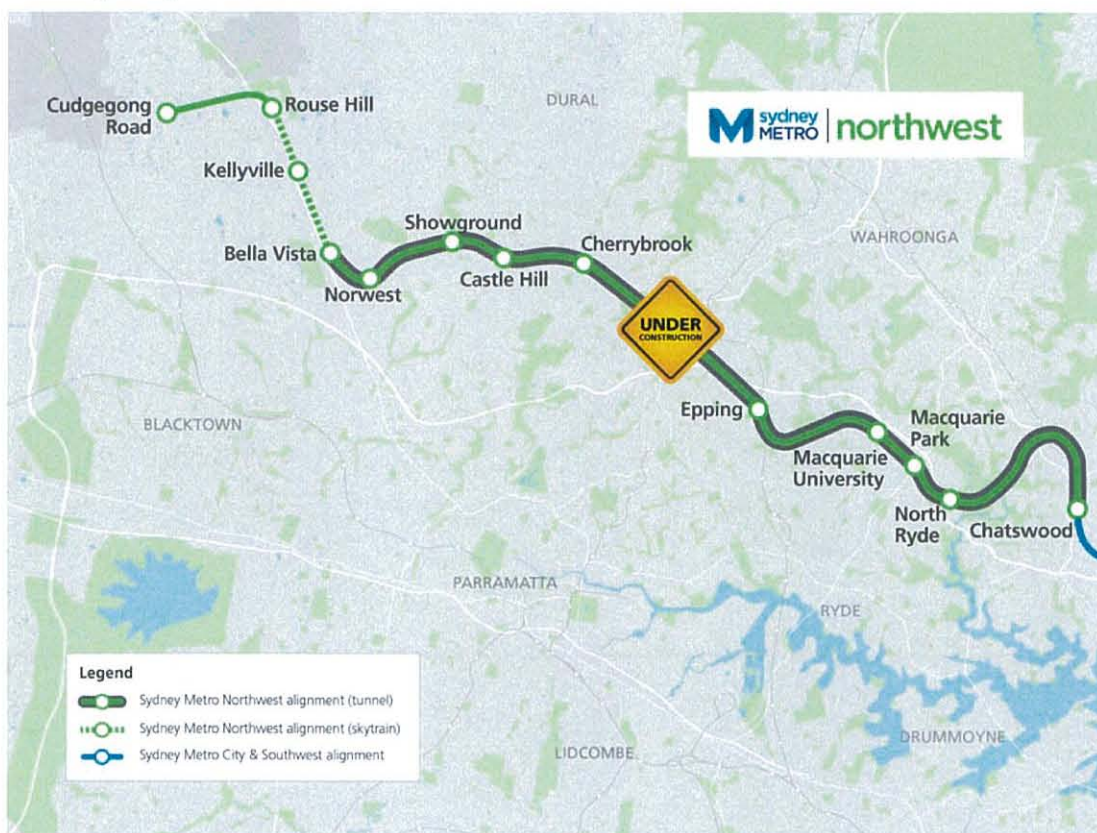
- Single deck, automated, metro rail service between Cudgegong Road and Chatswood;
- Rolling stock – modern, metro carriages with three wide doors per car;
- Eight new stations;
- Station precinct development with integration into the road and bus network;
- Train stabling and maintenance facilities at Tallawong Road, Rouse Hill;
- 23 km of new track and rail infrastructure between Epping and Cudgegong Road, Approximately 4 km of elevated rail track (the skytrain) and 4 km of at grade track between Bella Vista and Cudgegong Road;
- Excavations for the Cherrybrook, Castle Hill, Showground, Norwest and Bella Vista Stations;

## Sydney Metro, City and Southwest

- Approximately 15.5 km of twin running tunnels (approximately 6.1 metres in internal diameter) between Epping Station and Bella Vista Station. The running tunnels are being constructed primarily by tunnel boring machines;
- Cross passages between the running tunnels;
- Mined caverns, niches and openings for rail crossovers and equipment;
- Permanent concrete lining of all tunnels, caverns, cross passages and underground openings which must allow for all future track bed and rail services fixings; and
- Systems and stations on the existing 13 km Epping to Chatswood railway upgraded to create an integrated service from Cudgegong Road to Chatswood.

Sydney Metro Northwest has a project budget of \$8.3 billion.

### Sydney Metro Northwest



Further information and updates on the on the Project can be accessed through [sydnymetro.info/northwest](http://sydnymetro.info/northwest)

## 1.9 Sydney Metro City & Southwest

The first tunnel boring machine will be in the ground before the end of 2018 on Stage 2 of Sydney Metro – bringing world-class metro rail under Sydney Harbour and the CBD.

## Sydney Metro, City and Southwest

The NSW Government has announced the locations of Sydney's new world-class metro railway stations and announced investigations will begin into potentially extending metro rail from Bankstown to Liverpool.

The formal planning process for Sydney Metro City & Southwest project has begun, including:

- A State Significant Infrastructure Application to be lodged confirming the metro route.
- New metro stations confirmed for Crows Nest, Victoria Cross (North Sydney), Barangaroo, Martin Place, Pitt St (near Park Street) and underground at Central.
- A potential extension of metro rail to Liverpool, which could cut travel times to the CBD by up to 15 minutes and reduce crowding on the existing T1 Western Line and T2 South Line.

This new high capacity metro line will be able to move more people across the harbour in the busiest hour of the peak than the Sydney Harbour Bridge and Sydney Harbour Tunnel combined.

Sydney Metro will deliver 'turn up and go' rail services with more than 65 kilometres of new metro rail on a standalone line.

Stage 2 of Sydney Metro includes new twin rail tunnels stretching the entire 15 kilometres from Chatswood to Sydenham and proposed new stations at:

- Crows Nest located on the western fringe of Crows Nest village with access to the station via the corner of Clarke Street and Hume Street, and the corner of Pacific Highway and Oxley Street.
- Victoria Cross located in the northern section of North Sydney's CBD. Access to the station would be via the eastern side of Miller Street between Berry Street and Mount Street.
- Barangaroo station will combine Sydney's world-class metro rail system with the city's new global business hub. It will be located at Barangaroo Central.
- Martin Place will be integrated with the existing suburban station underground between Castlereagh and Elizabeth streets. It will include a world-class subterranean rail interchange which means customers won't need to go to the surface to change trains, and
- Pitt Street metro station will be located below Pitt and Castlereagh streets and north of Park St, servicing the southern CBD and the George St and Pitt St retail precincts.
- An underground station at Central linking to existing intercity and suburban rail services.

## Sydney Metro, City and Southwest



Above: Sydney Metro City & Southwest proposed alignment

The current budget estimate for the project is between \$9.6 billion and \$11 billion, as outlined in the State Infrastructure Strategy released late last year.

In addition to Sydney Metro City & Southwest, a multi-billion dollar investment – the Western Sydney Rail Upgrade Program – is also being implemented for the existing train network, with work now underway.

The Western Sydney Rail Upgrade Program, a major program of upgrades to the T1 Western Line, involves a series of upgrades such target capacity constraints on the T1 Western to deliver more services, upgrade power supplies, allow improved train operations on the T1 line and introduce advanced train control systems to improve service frequencies and capacity.

Together with Sydney Metro City & Southwest, this package of infrastructure works will unblock major rail bottlenecks in the Sydney CBD to allow up to 60 per cent more trains every hour across the train network. That means moving 100,000 more people every peak hour.

Together, Sydney Metro City & Southwest and the Western Sydney Rail Upgrade Program will deliver benefits for train customers across all of Sydney, especially the west and south west, including:

- **Cutting crowding** on the T1 Western Line and on trains from the south west
- **Less platform crowding** at Wynyard and significant reductions at other key stations such as Town Hall and North Sydney
- **Up to 10 minutes faster** from Bankstown to the city
- **Around 20 minutes faster** trip, Martin Place to Macquarie Park.

Sydney Metro City & Southwest will future-proof the city's rail system for generations to come.

## Sydney Metro, City and Southwest

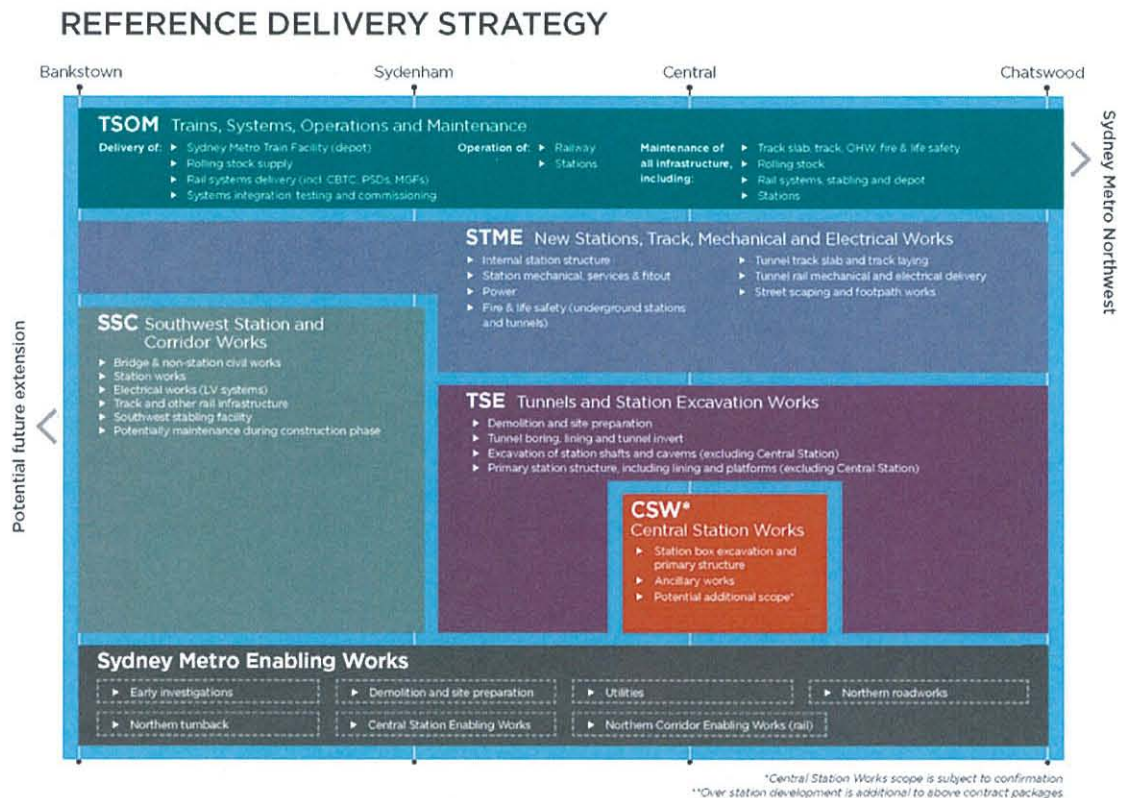
Sydney Metro City & Southwest will have the capacity to operate 15 trains per hour or at least every four minutes in the peak.

Sydney Metro City & Southwest program objectives are:

- Improve the quality of the transport experience for customers
- Provide a transport system that is able to satisfy long-term demand
- Grow public transport patronage and mode share
- Support the productivity of the Global Economic Corridor
- Serve and stimulate urban development
- Improve the resilience of the transport network
- Improve the efficiency and cost effectiveness of the public transport system
- Implement a feasible solution recognising impacts, constraints and delivery risk.

### 1.10 Sydney Metro City & Southwest Reference Delivery Strategy

The Sydney Metro City & Southwest Reference Delivery Strategy is shown diagrammatically below:



## Sydney Metro, City and Southwest

The Reference Delivery Strategy including project scope and delivery options has been developed for the Project. The Reference Delivery Strategy outlines possible procurement models including:

- (a) Contract(s) for delivery of ancillary and early works, possibly including separate Construct Only and/or D&C contracts and a Managing Contractor. This may include a series of enabling works packages covering utility relocations, demolition, site preparation, remediation, power supplies and the like including a specific package of early works at Central Station.
- (b) A Design and Construct (D&C) contract for all tunnels and station excavations (except Central) from Chatswood portal and dive structure to the Sydenham portal and dive structure. This package is known as the Tunnel and Station Excavation (TSE) Package.
- (c) A Central Works package covering all major building works at Central Station including the Metro station box and potentially other work which is under consideration. The contract form and scope is still under development but is likely to be known as the Central Station works package.
- (d) An Early Contractor Involvement (ECI) contract for the modernisation and renewal works associated with the section of the Bankstown line from Sydenham to Bankstown. This package is known as the Southwest Station and Corridor works.
- (e) A Design and Construct (D&C) contract for the fitout of the underground stations and a number of the line-wide rail systems such as track, power supply, traction power and distribution, tunnel ventilation and the like. This package is known as the Station, Track, Mechanical & Electrical (STME) works.
- (f) It is currently proposed, subject to a satisfactory commercial agreement, to use the Augmentation framework that exists in the existing NorthWest Metro OTS contract to procure trains, certain rail systems such as the signalling system, operations and maintenance for the entire line (TSOM). This package will require negotiations with the existing Project Company, NRT, that is currently delivering the Northwest Metro.

***Note that the delivery strategy and contract packaging may be subject to change and the Service Provider will be required to adapt to, and support the Principal, in implementing any change to the transaction and procurement process.***

### 1.11 Finalisation of the Sydney Metro City & Southwest Project Delivery Strategy

The Principal has developed the Reference Delivery Strategy based on the initial phase of an Industry Engagement Process. The Principal intends to undertake a further round of Industry Engagement for the purposes of:

- a) Updating industry on the status of the Project and providing information on the Reference Scheme;
- b) Obtaining industry feedback on ways to optimise the delivery of the Reference Scheme;
- c) Considering other scope and delivery options that meet the Government's objectives, which may offer greater innovation and improved value for money; and



## Sydney Metro, City and Southwest

- d) Exploring ways the Government can maximise flexibility and contestability in any future Sydney Metro extensions.

This process commenced in early December 2015 and is expected to be concluded in February 2016.

Irrespective of the final delivery strategy, the Service Provider is required to support the Principal in the management of transaction and procurement processes for delivery of the Project.

### 1.12 Sydney Metro City & Southwest present status

The Project is currently in the business case phase and is expected to move into pre-construction and procurement in 2016 following Government approval of the business case.

### 1.13 Interface projects

Interface projects are outside the scope of the services, however the following projects have a significant interface, and therefore must be considered in the delivery of services for Sydney Metro City & Southwest.

These include:

- Central Station Blue Print;
- Transport Access Program (TAP);
- Power Supply Upgrade Program; and
- T1 Line Upgrade Program (Sydney's Rail Future).

### 1.14 Vision and Values

Culture is the most important determinant of an organisation's success. It has a much stronger influence on outcomes than strategies, structures and processes. To help develop a strong organisational culture, Sydney Metro has six guiding values that all team members sign up to.

These values set organisational expectations of behaviour, help our team make choices, and ensure we are travelling in the same direction.

Our six guiding values are:

- |                         |                  |
|-------------------------|------------------|
| 1. Safety and Wellbeing | 2. Integrity     |
| 3. Excellence           | 4. Collaboration |
| 5. Achievement          | 6. Innovation    |

## 2 Scope of Services

### 2.1 General

The Service Provider is responsible for the provision of factual data to the Principal for geotechnical site investigations, allowing for the procurement and delivery of the Project (the Services).

The Services include the provision of all site investigation (geological and hydro geological) and testing to support the development of a detailed characterisation of the geological, terrain and subsurface conditions along the proposed Sydney Metro City & Southwest route.

### 2.2 Overview

The Service Provider is responsible for providing, leading and coordinating the provision of Site Investigations required to achieve five geotechnical data reports (GDR) and five contamination assessment reports (CAR).

The key activities of the Services include:

- Updating of the GDR reports based on additional site investigations, interpretations and delivery strategies during the execution of the Services;
- Preparation of the required CARs for the Borehole samples collected.
- Undertaking all necessary tasks required to complete the Services in accordance with this Services Brief.

The Principal intends to:

- provide the GDRs and CARs prepared by the Service Provider to prospective tenderers of the Project for the purpose of informing prospective tenderers of the Project of the geotechnical conditions along the proposed Sydney Metro City & Southwest alignment; and
- allow successful tenderers engaged by the Principal for the Project to rely on Factual Information contained in the GDRs and CARs prepared by the Service Provider.

The Service Provider must therefore provide the Services on this basis.

### 2.3 General Service Provider Obligations

The Services Provider's general obligations include:

- Providing a highly skilled team, which will work collaboratively with the Integrated Project Team (IPT) and key stakeholders to deliver the Services;
- Preparation of accurate, reliable and high quality comprehensive technical documentation, implementing quality assurance processes;

## Sydney Metro, City and Southwest

- Preparation of suitable technical documentation and information to support the Principal and the planning approval services;
- Ensuring that all people and parties in the Service Provider's team fully understand and fulfil their role to successfully deliver the Services;
- Ensuring that the Key Personnel are available so that the Services are provided in a timely manner;
- Ensuring that Key Personnel have adequate support and that contingencies are in place in the event that Key Personnel need to be replaced;
- Appointing and managing any required sub-consultants (subject to approval by the Principal) to carry out specialist studies to expedite the requirements of the Services; and
- Where required by the Principal, providing a Reliance Letter in accordance with clause 3.8 of the Agreement.

## 2.4 Area Identification

Area	Tranche	Scope	Borehole IDs	
Chatswood to Sydenham	1	Chatswood to Central Business District	SRT_BH028 SRT_BH029 SRT_BH032 SRT_BH033 SRT_BH034	SRT_BH035 SRT_BH036 SRT_BH037 SRT_BH038
	2	Central Station investigations	SRT_BH007A SRT_BH039 SRT_BH042 SRT_BH044 SRT_BH045 SRT_BH046 SRT_BH047 SRT_BH048 SRT_BH049 SRT_BH050 SRT_BH052 SRT_BH053	SRT_BH055 SRT_BH056 SRT_BH058 SRT_BH059 SRT_BH060 SRT_BH061 SRT_NDD001 SRT_NDD002 SRT_NDD003 SRT_NDD004 SRT_NDD005 SRT_NDD006
Sydenham to Bankstown Upgrade	1	All BH's that require a possession to be carried out safely. To be determined by site assessment but are likely to at least include all embankment-targeting boreholes.	SRT_BH504 SRT_BH526 SRT_BH527 SRT_BH528 SRT_BH531 SRT_BH532	SRT_BH539 SRT_BH543 SRT_BH544 SRT_BH555 SRT_BH556

Area	Tranche	Scope	Borehole IDs	
	2	Sydenham Dive to Sydenham Station	SRT_BH501 SRT_BH502	SRT_BH503
	3	Bridge and station concourses	SRT_BH505	SRT_BH524
			SRT_BH506	SRT_BH525
			SRT_BH507	SRT_BH529
			SRT_BH508	SRT_BH530
			SRT_BH509	SRT_BH533
			SRT_BH510	SRT_BH534
			SRT_BH511	SRT_BH535
			SRT_BH512	SRT_BH536
			SRT_BH513	SRT_BH537
			SRT_BH514	SRT_BH538
	4	Surface works – stations, stabling etc. – includes all boreholes not already completed	SRT_BH515	SRT_BH540
SRT_BH516			SRT_BH541	
SRT_BH517			SRT_BH542	
SRT_BH518			SRT_BH545	
SRT_BH520			SRT_BH546	
SRT_BH523				
		SRT_BH547	SRT_BH552	
		SRT_BH548	SRT_BH553	
		SRT_BH549	SRT_BH554	
		SRT_BH550	SRT_BH557	
		SRT_BH551	SRT_BH558	

## 2.5 Deliverables

A list of the deliverables to be provided as part of these Services is included below.

**Table 1 – Schedule of Deliverables**

Deliverables	Refer Services Brief Section	Draft	Final
Construction Environmental Management Plan (CEMP)	4.1.7	CD + 5 days	CD + 15 days
Mobilisation Plan	4.1.1	CD + 5 days	CD + 15 days
Document Management Plan (DMP)	4.1.4		
Safety Management Plan	4.1.5		

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Deliverables	Refer Services Brief Section	Draft	Final
Risk Management Plan (RMP)	4.1.6		
Interface Management Plan (IMP)	4.1.8		
Incident Management Plan	4.1.9		
Services Management Plan (SMP)	4.1.2	CD + 10 days	CD + 20 days
Geotechnical Investigation Plan (GIP)	4.1.2		
Environmental Control Maps (ECMs) and Site Assessment Checklists	4.2	Required for each location of works	
Monthly Progress Report (MPR)	4.4.2	Last working day of month	First week of the following month
Web based map and GIS shape file of borehole locations and program information	2.7	N/A	COB each Friday during the phased works
Raw data logs of boreholes	2.11.1	5 days after completion of borehole. Drafts submitted to Principal for review.	N/A
Geotechnical Data Report (GDR) – Chatswood to Sydenham - Tranche 1&2	2.11.1	May 2016	May 2016
Geotechnical Data Report (GDR) – Sydenham to Bankstown Upgrade - Tranche 1	2.10.1	May 2016	17 June 2016
Geotechnical Data Report (GDR) – Sydenham to Bankstown Upgrade - Tranche 2	2.10.1	17 June 2016	01 July 2016
Geotechnical Data Report (GDR) – Sydenham to Bankstown Upgrade - Tranche 3	2.10.1	15 July 2016	29 July 2016
Geotechnical Data Report (GDR) – Sydenham to Bankstown Upgrade - Tranche 4	2.10.1	12 August 2016	26 August 2016
Contamination assessment report (CAR) – Chatswood to Sydenham - Tranche 1&2	2.9	May 2016	May 2016
Contamination assessment report (CAR) – Sydenham to Bankstown Upgrade - Tranche 1	2.9	May 2016	17 June 2016

Deliverables	Refer Services Brief Section	Draft	Final
Contamination assessment report (CAR) – Sydenham to Bankstown Upgrade - Tranche 2	2.9	17 June 2016	01 July 2016
Contamination assessment report (CAR) – Sydenham to Bankstown Upgrade - Tranche 3	2.9	15 July 2016	29 July 2016
Contamination assessment report (CAR) – Sydenham to Bankstown Upgrade - Tranche 4	2.9	12 August 2016	26 August 2016
Ground Water Monitoring Report (GWMR)	2.11.2	Month end	First week of the following month

Notes:

- All management plans, including Safe Work Method Statements (SWMS) and Worksite Protection Plans must be submitted and approved by the Principal before site investigation works can commence at each worksite;
- The Service Provider shall provide draft borehole logs and test results progressively throughout the course of the contract to the Principal for review, as noted;
- Supplementary Geotechnical Data Reports must be provided as agreed with the Principal; and
- CD = Commencement Date.

## 2.6 Geotechnical Site Investigation Services

The Service Provider must carry out geotechnical investigation in accordance with the following standards and guidelines:

- AS 1726 Geotechnical Site Investigations;
- AS 4133 Methods of testing rocks for engineering purposes;
- AS 1289 Methods of testing soils for engineering purposes; and
- International Society for Rock Mechanics (ISRM), Document 8 Part 2.

The geotechnical investigation will include the following:

- Boreholes, the details of which are tabulated in Appendix F.
- Selected boreholes must be fitted with standpipe piezometers with data loggers to continuously monitor water levels in the borehole;
- In-situ water pressure (packer permeability) testing (WPT) must be conducted in those boreholes identified in Appendix F to assess the rock mass permeability;

- In-situ stress testing must be conducted in selected bores using an agreed method such as the overcoring method;
- The boreholes are oriented vertically, and borehole advancement must be by non-core drilling in fill and soil and diamond core drilling in rock; and
- Borehole imaging by acoustic or optical televiewer means as agreed shall be carried out in those boreholes identified in Appendix F to measure defect orientations, with core orientation in inclined boreholes.

Following identification of a proposed borehole location, and subsequent approval from the Principal and approval authorities to undertake the works, the Service Provider may proceed with the site investigation works.

The exact location of the investigation boreholes proposed by the Principal shall be confirmed possible by the Service Provider taking into account the location of services, road closure requirements, possession requirements and noise constraints. An assessment of required possessions, traffic control measures and road opening permits is to be undertaken by the Service Provider for each borehole location. Provision should be allowed in the Service Providers brief for site audits by the Principal to assess works area, equipment or materials collected (e.g. boxed core) during the survey investigation.

In the event that access to the rail corridor will be required, the Service Provider is responsible for making such arrangements with Sydney Trains and meeting all relevant track safety requirements. The Service Provider will be required to provide an appropriate number of Protection Officers from a Sydney Trains approved Worksite Protection service provider, to ensure the works do not affect rail safety. Protection Officers must be PO level 2 as a minimum, except where under the direct supervision of a PO2 or higher.

The Service Provider must liaise with the Principal and confirm the proposed location of boreholes prior to commencing the drilling of the boreholes at the locations provided. Drilling must not commence without prior written approval from the Principal. Drilling termination at suggested level must be confirmed by the Principal, especially if non-consistent geological conditions (e.g. geological structure or dykes etc.) are encountered.

### 2.6.1 Core Loss

The Service Provider shall present as part of the Geotechnical Investigation Plan (GIP) a process for determining what constitutes unacceptable core loss for agreement by Principal prior to the start of drilling. Boreholes that contain unacceptable core loss, particularly in sections that are critical for design, shall be re-drilled and relogged either in total or in part at the Service Provider's cost. The Principals required successful percentage of core recovery to support the survey investigation data required (determinant on prevailing ground conditions) is tabled below.

**Table 2 – Required core recovery**

Ground Conditions	Core Recovery
Rock (fresh to moderately weathered / well to very well cemented)	95%
Rock (moderately to highly weathered / moderately cemented)	90%
Rock (extremely weathered / un-cemented to weakly cemented)	80%

Ground Conditions	Core Recovery
Soil	75%

## 2.7 Site and Excavation/Borehole Survey

The Service Provider shall provide a survey of all investigation sites, including all boreholes, and any other significant features. The location of all test excavations and boreholes sites shall be surveyed to at least  $\pm 100$  mm in plan position and  $\pm 50$  mm in level so that their position can be related to the alignment.

All project zones shall be based on the Geodetic Datum of Australia (GDA94 - GDA\_1994\_MGA\_Zone\_56) and Australia Height Datum (AHD).

All inclined boreholes and boreholes > 20 m are to be surveyed for deviation in inclination (vertical or inclined), deviation of azimuth, borehole length and termination point.

- Survey of these boreholes should provide an accurate digital plot (Excel) of the path of the hole in 3-dimensional space, (northing (x), easting (y), true depth (z) coordinates) of every known point along the cored path.
- Any azimuth will be measured in either a geographic north (TN) or geomagnetic north (MN) depending whether the geographical declination has been set. All measured azimuths should be recorded with a TN or MN suffix in all logs and reports.

Sites that are susceptible to anomalous magnetic fields should be annotated on logs and reports, and in these areas other systems for measuring azimuth should be adopted and recorded.

The Service Provider shall keep an up to date ESRI, AutoCAD or web-based map showing locations of boreholes completed and pending, including reference and estimated program dates. The updated map must be issued to the Principal each Friday during the progress of the Services.

## 2.8 Laboratory Analysis

The Service Provider shall conduct soil and rock mechanics testing on disturbed and undisturbed soil and rock samples collected during the field investigation. Laboratory testing on samples taken during the investigation shall provide comprehensive data with sufficient samples tested to fully characterise all materials. The Principal will advise the Service Provider of the testing requirements for each site location.

The Service Provider must prepare a list of samples for testing as summarised below and described in Appendix C.

### 2.8.1 Soil Testing

The Service Provider must conduct soils testing on disturbed and undisturbed samples collected during the field investigation as directed by the Principal. A minimum of 2 soil samples must be collected (at the locations stated – Appendices F and G) per test location at depths appropriate to the proposed construction and sufficient to satisfy the testing requirements listed below in Table 3 and Appendix C.



**Table 3 – Geotechnical Laboratory Soil Testing**

Laboratory Test	Test Method
Field Moisture Content	AS 1289.2.1.1
Particle Size Distribution (Grading)	AS 1289.3.6.1
Hydrometer	AS 1289.3.6.3
Atterberg Limits with Linear Shrinkage	AS 1289.3.3.1
Undrained Triaxial Testing	AS 1289.6.4.2
Consolidated Undrained Triaxial Testing with pore pressure measurements	AS 1289.6.4.2
Consolidated Undrained Triaxial Testing	AS 1289.6.2.2
Direct Shear Testing	AS 1289.6.2.2
1-D Consolidation Testing	AS 1289 6.6.1
Aggressivity Testing (pH, Sulphate, Chlorides, EC)	To be proposed by the Service Provider
Standard Compaction Test to 98% of MDD and CBR (10 day soaking)	To be proposed by the Service Provider

### 2.8.2 Rock Testing

The Service Provider, as directed by the Principal, must conduct rock mechanics testing on the rock samples collected during the field investigations. Testing must include both rock mass and defect testing and must be conducted on specimens from each major rock unit at depths appropriate to the proposed tunnel alignment and station excavations. Testing is listed in Table 4 and Appendix B.

**Table 4 – Geotechnical Laboratory Rock Testing**

Laboratory Test	Test Method
Moisture Content	AS 4133.4.1.1.1 - 1993
Rock UCS	AS 4133.4.2 - 1993
Rock UCS with Young’s Modulus and Poisson’s ratio (secant, tangent at 50% of max stress, and average from 42% to 58% of max stress)	AS 4133.4.3 - 1993

Laboratory Test	Test Method
Petrographic Examination – Proportion and type of grain, cement constituents (silica, feldspar, siderite (specifically grain size) clay or other)	(ASTM C295/AS2758.1 -1998)
In-situ Testing – including point load strength tests at every meter	AS 41334.1
Rock Clay Mineralogy	To be proposed by Service Provider
Direct Shear test on Defects	ASTM D5607 – 08

### 2.8.3 Groundwater testing

The Service Provider must undertake groundwater sampling and testing to assess aggressivity to elements of the tunnel structure and for assessment of potential contamination. The scope of testing is as provided in Appendices B & C. One groundwater sample per borehole shall be collected. Further groundwater samples may be required.

Groundwater sampling should be undertaken using positive displacement. It should be noted that some groundwater wells may extend beyond 25 meters, appropriate equipment should be employed to enable samples to be collected. Details of the procedure and equipment employed are to be provided in the Sampling Analysis and Quality Plan. Note that the groundwater wells will have a minimum internal diameter of 50mm.

Field measurements shall be conducted on the pH, dissolved oxygen, redox, conductivity and temperature on all extracted water samples at the time of sampling. Field observations shall also be recorded.

## 2.9 Contamination Testing and Analysis

Contamination testing and analysis will be undertaken for soil and water samples obtained from the site investigations detailed in Appendix B and/or subsequent sampling from installed monitoring wells.

The contamination sampling and analysis shall be undertaken concurrently with geotechnical sampling, logging and testing. Details regarding sample handling are provided in section 2.10.

Laboratory test methods for the test nominated must be in accordance with NEPM B3 and laboratory tests shall be performed by a NATA accredited laboratory.

A draft and final CAR is to be provided, documenting the objectives, methodology and results of the preliminary sediment assessment. Relevant QA/QC documentation, including all field and laboratory data (including original laboratory certificates) must be included in the CAR.

The draft and final CAR must provide a preliminary assessment of results against relevant guidelines, including but not limited to:

- NSW Waste Classification Guidelines (Department of Environment, Climate Change and Water 2009)

- NSW Environment Protection Authority suite of contaminated land management guidelines, as relevant (refer <http://www.epa.nsw.gov.au/clm/guidelines.htm>)
- National Environment Protection (Assessment of Site Contamination) Measure (National Environment Protection Council 2013)

The draft and final CAR must include for further investigation and assessment.

## 2.10 Sample Storage

The Service Provider shall be responsible for the storage of soil and rock samples recovered from the field up to the end of 2019. At the end of this period, the Service Provider shall deliver all documentation, reports, samples, rock core and groundwater monitoring data to a storage area in the North Western Sydney Metropolitan area, as agreed by the Principal. The core samples must remain accessible to the Principal, and other Service Providers, for up to the end of 2019.

Collected samples for contamination sampling must be stored in an ice filled esky (or equivalent) and transported to the testing laboratory within holding times. Samples must be accompanied by Chain of Custody Documentation and must be packaged to minimise risk of breakages.

Soil and groundwater samples for contamination testing not selected for analysis should be stored at the laboratory for a minimum of 60 days prior to reverting to the storage facility.

## 2.11 Reports

The Service Provider shall prepare the reports described below.

### 2.11.1 Geotechnical Data Report

The Service Provider must produce a Geotechnical Data Report (GDR) containing a brief description of the investigation, stating the aim of the investigation, the numbers and types of boreholes and test locations, time of year and weather conditions encountered, a brief description of the sites of the investigations, a list of all laboratory tests and a summary of the general geology and strata revealed.

The following items shall, where applicable, be covered in the GDR;

**Table 5 Geotechnical Data Report**

Report	Report Requirements
Description of Site	A full description of each investigation site must be given. The grid reference of each investigation location must be stated and such other information required to clarify the identification and location of the site. Details of any structures existing on the site at the time of the investigation must also be given.

Report	Report Requirements
<p><b>Geotechnical Investigation Summary Plan</b></p>	<p>A location plan in ESRI file, .dwg and .pdf formats must be provided showing the location of each borehole or test location. This plan is to be consistent with the information indicated on the web based borehole location maps used during the Services, as described in Section 2.13. The location of any field tests and geotechnical observations must be shown. The location plan must be of sufficient size to show the relationship of the boreholes to neighbouring existing buildings or other easily identified landmarks. The location plan must incorporate the results of the geological mapping and API. The scale of the plan and the north point must be clearly indicated. Additional localised plans must present the results of geological mapping activities at an appropriate scale.</p>
<p><b>Borehole Logs</b></p>	<p>Borehole logs (including photologs) must be prepared in accordance with the requirements contained in Appendix B. The Service Provider must satisfy itself that all available data has been considered in preparing the logs and that draft copies and uncorrected driller's logs are not being used as part of the report. The various ground types must be described in the terms given in Appendix B and must be linked to the geology of the site. Borehole data is to be provided in gINT format in accordance with Section 4.3.5 and Appendix B.</p> <p>The Point Load Test results must be displayed as symbols and as values on the log.</p>
<p><b>Comment on Groundwater</b></p>	<p>The Service Provider must state whether it considers that there is a permanent water table within the depth explored or whether a perched water table exists. In addition, a commentary on groundwater levels (current and future) and contamination is required.</p>
<p><b>Comment on Field Tests</b></p>	<p>The Service Provider must provide a full description of the manner in which each test has been carried out, especially where the tests are non-standard. Comment must also be made on any anomalies which have arisen. A concise summary of all test results must be provided. Specific reporting requirements for the in-situ stress testing are defined in Appendix B.</p>
<p><b>Comment on Laboratory Tests</b></p>	<p>The Service Provider must provide details of every test performed, especially where the tests are non-standard and comment must be made on any anomalies which may have occurred. A concise summary of all test results must be provided and statistical analysis conducted where appropriate.</p> <p>All drawings prepared as part of the GDR must be in accordance with the Principal's CAD protocols.</p> <p>Unless otherwise stated, all reports are to be based on SI units.</p>

Report	Report Requirements
<b>Tabulation of Data</b>	<p>The report must contain a tabulated summary of:</p> <ul style="list-style-type: none"> <li>• Borehole, CPT and Testpit locations (Borehole/CPT ID, test type, surveyed location and level, test depth);</li> <li>• Laboratory test data (Borehole/Testpit ID, depth of sample, sample type, test method, laboratory certificate number, summarised results). A separate tabulation must be provided for geotechnical and contamination testing;</li> <li>• Packer Test Data (Borehole ID, depth of test, reported Lugeon value); and</li> <li>• In-situ testing results.</li> </ul>

### 2.11.2 Ground Water Monitoring Report (GWMR)

Groundwater level monitoring must continue for a period of 6 months after completion of all boreholes, at which time monitoring responsibility will be transferred to others, as nominated by the Principal.

Ongoing groundwater level monitoring results must be reported monthly in the form of a report. The report must include all relevant plots of groundwater level data and a brief description of the results including any anomalies.

Data loggers must be capable of three hourly readings and results shall be presented in a tabulated and chart format as part of the report.

Data logger equipment (cables) and relevant software must be provided to TfNSW upon completion of the monitoring campaign.

An editable electronic tabulation of the monitoring data is to be provided in MS Excel format.

The monitoring report must include the following;

- Borehole logs including groundwater well installation details;
- Well development procedures, field observations and field measurements;
- Purging and sampling procedures;
- Purging details, including purging volumes, recorded EC, DO, temperature, pH, redox and observations;
- Analytical results (electronic format ESDAT); and
- Assessment of the data quality objectives and quality control.

The report should be in general accordance with Guidelines for the Assessment and Management of Groundwater Contamination, 2007, for preliminary assessments.

### 2.11.3 Contamination Assessment Report (CAR)

The Service Provider must produce a draft and final contamination assessment report (CAR) that documents the objectives, methodology and results of the preliminary sediment assessment described in section 2.9.

The CAR must also document all QA/QC procedures implemented and incorporate all relevant documentation, including all field and laboratory data (including original laboratory certificates).

The draft and final CAR must provide a preliminary assessment of results against relevant guidelines, including but not limited to:

- NSW Waste Classification Guidelines (Department of Environment, Climate Change and Water 2009)
- NSW Environment Protection Authority suite of contaminated land management guidelines, as relevant (refer <http://www.epa.nsw.gov.au/clm/guidelines.htm>)
- National Environment Protection (Assessment of Site Contamination) Measure (National Environment Protection Council 2013)

The draft and final CAR must include recommendations for further investigation and assessment.

## 2.12 Interface Management

The Service Provider is responsible for the provision of all interface management activities across the various disciplines and stakeholders associated with the site investigation work scope.

All deliverables under the Professional Services Contract (PSC) will be updated by the Service Provider to include and reflect additional investigation work and outcomes, including but not limited to reports and drawings.

## 2.13 Security

The Service Provider shall be responsible for providing all required security and security personnel on geotechnical site investigation work sites. Security controls must be incorporated into the Safety Management Plans and SWMS.

## 2.14 Safety Requirements

Refer to Appendix D.

### 2.14.1 Service Location

The Service Provider, prior to undertaking any investigations, must ensure that all services have been located as to ensure a safe execution of the works. Where in doubt, the Service Provider must confirm with the Principal, prior to reassessing the survey investigation location, if exact location of the buried services cannot be confirmed.

The Service Provider must check with the Land Survey Service Provider to ensure that checks are made against the Principal's existing survey data, including any 3D models. Additional

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techniques for identification of unknown services in the rail corridor must include Ground Penetration Radar and Non-Destructive Digging (by careful use of hand tools or hydro-vacuum excavation) to a depth of 1.5m before proceeding with mechanical drilling.

Any unexpected asset shall be photographed and reported to the Council and all asset owners in the area.

## 3 Integrated Project Team

### 3.1 Introduction

The Service Provider must provide experienced resources to deliver the Services, ensuring that any resources that are part of this team are familiar with the appropriate geotechnical, safety and environmental legislation and regulations as required by their role. The Service Provider must also ensure the provision and management of sufficient staff and other resources to discharge the Services.

The Service Provider must provide, lead, organise, control and coordinate the resources necessary to fulfil the Services.

### 3.2 Service Provider's Team

The Service Provider must provide a team of highly experienced personnel capable of delivering the Services in a timely manner.

The Service Provider must nominate a member of their team who will be responsible for the day to day management of the Services. These nominated personnel must have experience in working within the dynamic environment of a major infrastructure project/program, with a positive attitude to expedite works for the Principal without delay.

The Service Provider shall propose suitable staffing levels and personnel to carry out the performance monitoring of the surveys and equipment, interpretation of the field data and preparation of all field work records and reports.

The names and particulars of all personnel proposed for the Professional Services Contract, including reserve personnel who shall act during periods of absence where necessary, shall be provided to the Principal for approval at the date of commencement of the Contract.

All professional staff involved in the Professional Services Contract shall be to the approval of the Principal, who reserves the right to withdraw approval at any stage during the Contract Period. If such approval is withdrawn the Service Provider shall immediately replace any removed personnel by others approved by the Principal.

### 3.3 Key Personnel

The Service Provider must nominate Key Personnel with experience in undertaking geotechnical investigations within inner city and operational rail environments. Key Personnel shall meet the requirements detailed within the table below.



**Table 2 – Requirements for Key Personnel**

Key Role	Requirements
<b>Project Manager/Site Manager</b>	Proven track record of successfully managing geotechnical investigations to programme and to budget within a complex infrastructure project/program. Demonstrated relevant experience in working in an Integrated Project Team
<b>Safety Manager</b>	Proven track record of successfully managing Operational Health and Safety aspects of site investigations within metropolitan and rail infrastructure environments.
<b>Field Manager</b>	Proven track record of successfully managing site operations within a rail infrastructure and metropolitan environment.
<b>Senior Technical Officer</b>	At least 10 years demonstrated relevant working experience, relevant and current professional qualifications and proven working knowledge of best practice Geotechnical Investigations and data recording equipment.
<b>Geotechnical Verifier</b>	Hold a minimum 20 years relevant work experience in major infrastructure works, and significant experience in tunnelling and deep excavation. The Geotechnical Verifier may be nominated from within or outside the Service Provider's firm.

### 3.4 Staff Retention

Staff retention will be the responsibility of the Service Provider. The Principal requires that, apart from in exceptional circumstances, no role or position within the Service Provider's team will be filled by more than two different personnel up until completion of the Reference Design.

The Principal expects that the Key Personnel provided by the Service Provider will be engaged for the entirety of the Services. Where a change of personnel is required, the replacement person must be of equal or better capability than the person being replaced and approved by the Principal.

The Service Provider will assure the Principal that the personnel engaged to deliver the Services will be prioritised to these Services.

### 3.5 Field Personnel

The Service Provider is responsible for all coordination, supervision and providing all personnel required to complete all fieldwork activities and reporting. Field personnel must ensure all communication is in line with the Interface Management Plan (refer section 4.1.8 for further details). All other enquiries from the public are to be directed to the Principal's stakeholder communications manager.

All fieldwork shall be carried out under the full time supervision of an experienced engineering geologist or experienced geotechnical engineer with at least 5 years' experience of similar activities in the Sydney Metropolitan area or a senior technical officer (non-professional) with at least 10 years' experience. Logging of ground conditions in the field by drilling contractors is not acceptable. Where contamination sampling is being undertaken, the field personnel shall be

suitably experienced to perform such sampling in accordance with the site collection, storage and transport protocols.

The responsibilities of the engineering geologist, geotechnical engineer or technical officer shall include:

- Confirming site locations for testing and sampling;
- Describing non-core and core samples;
- Supervision and logging of all drilling operations;
- Supervision of in-situ stress testing;
- Conducting Point Load Index tests in the field (using calibrated equipment);
- Conducting water pressure (packer permeability) tests; and
- Appropriate handling, storage and labelling of all samples in accordance with geotechnical and/or contamination laboratory testing protocols;
- Photography of boxed core samples prior to removal of selected samples for laboratory testing.

### 3.6 Safety Requirements

Refer to Appendix D.

### 3.7 Sydney Trains Requirements

To undertake the geotechnical site investigation services within Sydney Train's operational rail corridor, the Service Provider must meet the relevant track access requirements to undertake the services.

The Service Provider is responsible for ensuring all personnel have the appropriate experience and qualifications and will manage the submission of all applications for relevant approvals. Details of track access requirements are detailed below.

#### 3.7.1 Track Access

When undertaking the Services on Sydney Trains controlled property, the Service Provider must complete a Sydney Trains Project Work Notification (PWN) form. The PWN is to be provided to Sydney Trains Interface Manager for the location of the works at least 6 weeks before the work is to take place, and a copy is to be provided to the Principal.

All personnel working within the Rail Corridor must hold a current Rail Industry Safety Induction (RISI) or Rail Industry Worker (RIW) card.

## 4 Management of the Services and General Processes

This section provides an outline of:

- The management plans required for the Services;
- The documentation protocols; and
- Governance and reporting requirements.

### 4.1 Management Plans

Detailed below is an outline of the deliverables required as part of the planning and management of the Services. These management plans set out how the work will be approached, delivered and assured.

The Service Provider will undertake a formal review of each management plan at least every 6 months.

#### 4.1.1 Mobilisation Plan

The proposed Service Provider's personnel will be subject to the Principal's agreement. The team shall mobilise to deliver the following services:

- Provide, lead, organise, control and coordinate the appropriate resources necessary to fulfil the Service Provider's role in the delivery of the Services;
- Ensure that all personnel and parties fully understand and fulfil their roles as required by the Services; and
- Ensure that the key personnel are available so that the Services are provided in a timely manner, in accordance with the Project schedule.

Each team member must complete a Confidentiality Deed Poll and return it to the Principal prior to commencing work on the Services.

The Service Provider shall submit an organisation chart showing all key personnel, their role in the in the delivery of the Services and contact details as part of the mobilisation plan.

The mobilisation plan shall include the timing for establishing each of the key personnel particularly those seconded from overseas or interstate. Note that overseas secondees must hold a valid working visa and the status of this must be included in the mobilisation plan.

The initial mobilisation plan shall be submitted to the Principal within the timeframes detailed in Section 2.5, Table 1 and updated progressively until all key personnel are engaged in the Services.

#### 4.1.2 Services management plan

The Service Provider must employ a management system that is consistent with the NSW Government Quality Management Systems Guidelines. The Service Provider must develop and implement a Services Management Plan that sets out the general approach to managing delivery of the Services and is consistent with the principles of AS/NZS ISO 9001 (1994 or 2000) or equivalent.

The Services Management Plan and program, maintenance and reporting protocols must be submitted within the number of days from the Commencement Date stated in the Agreement and must contain an initial program and baseline budget.

##### Program

The Service Provider must provide a program for the key activities required to complete the services.

The form of the program and protocols for maintaining the program are to be agreed with the Principal. Changes to the baseline program must only be made with the approval of the Principal; however, this program must be updated on a monthly basis to monitor the progress of the execution of the Services.

##### Cost

The Service Provider must prepare a schedule of rates for the provision of the Services. The form of the Schedule of Rates, protocols for maintaining and reporting against the baseline budget when deliverables are assigned and the amount of detail to be provided in the baseline budget are to be agreed with the Principal.

If requested by the Principal, the Service Provider must provide a fee estimate or a lump sum proposal for a specific component of the Services and/or additional services in a timely manner and prior to their commencement.

The Service Provider must keep continuous records and shall advise and seek direction from the Principal immediately if the baseline budget or upper limiting fee are likely to be exceeded.

##### Transition out

As part of the Services Management Plan the Service Provider must prepare a Transition Out Plan that demonstrates how the following activities will be managed at the completion of the Agreement. The Transition Out Plan must include:

**Service Provider Obligations** – a process for sign-off that all obligations have been met to the satisfaction of the Principal's Representative.

**Deliverables** – a process for sign-off that all Deliverables have been met to the satisfaction of the Principal's Representative and where required by the Principal a process for review by other service providers prior to final sign-off by the Principal.

#### 4.1.3 Geotechnical Investigation Plan

For each phase of the Services, the Service Provider shall prepare and submit for approval a detailed Geotechnical Investigation Plan (GIP) that is based on the requirements of this Services

Brief. As the final scope shall be determined during the course of the investigations, with the test locations and scope subject to change. Therefore, the GIP will be a live document for the duration of the works, documenting the agreed and completed scope at any time.

The Service Provider will be responsible for keeping the GIP current at all times to reflect variations in investigation scope as directed by the Principal. Where a scope change occurs, an updated GIP shall be provided to the Principal with details of the change in scope within 1 week of being directed by the Principal.

As a minimum, the GIP is to address the following;

- Proposed geotechnical investigations including a plan of the proposed geotechnical investigation sites;
- Methodology and equipment for field sampling, testing and investigations;
- A summary report for each borehole including proposed in-situ testing, sampling and installations. On borehole completion, this shall be updated to reflect the completed scope;
- Draft borehole review by Principal;
- Survey of locations;
- Consultations with services authorities and services management protocols;
- Schedules of proposed and completed works as per the tender schedules;
- Detailed listing of collected samples, including details of laboratory testing proposed and/or completed. The schedule of samples collected shall be provided to the Principal for use in developing the laboratory testing schedules;
- Provision for internal and Principal review of the geotechnical data report;
- Transfer of data;
- Road occupancy/traffic control; and
- Rail Corridor access and possession planning.

Specific to contamination sampling for specified boreholes, the GIP shall also include a Sampling Analysis and Quality Plan (SAQP) that shall be submitted and approved prior to commencing fieldwork. As a minimum, the SAQP must include the following:

- Detailed sampling procedures for well development, purging and sampling;
- The decontamination procedures to be employed to minimise cross contamination;
- Details regarding sample handling and transportation procedures;
- Details of the analytical program;
- Data quality assurance, including specific data quality objectives; and
- Quality control to be adopted (laboratory and field).

The GIP shall be submitted to the Principal within the timeframes detailed in Section 2.5, Table 1.

#### 4.1.4 Document Management Plan

The Service Provider shall establish and implement a document management system compatible with that of the Principal. The Service Provider's responsibilities include the following:

- Establishing and implementing a document register for the documents received from and sent to the Principal, other advisors, authorities and other stakeholders;
- Receipt, management, distribution of documents, document numbering, document map, comment and responses to these documents;
- Establish Metadata standards for GIS and CAD data;
- Development or input into the development of a project Geodatabase schema;
- GIS/CAD version and publication control for the survey data; and
- Develop an interoperability protocol or procedure to ensure that survey accuracy of data is maintained in the project.

All documentation, reports, submissions, drawings and documents submitted by the Service Provider to the Principal in electronic form shall be in the formats specified by the Principal. Drawings shall be produced in accordance with the Principal's CAD Protocols.

The final Document Management Plan (DMP) shall be submitted to the Principal within 15 business days after Commencement Date.

#### 4.1.5 Safety Management Plan

Refer to Appendix D.

#### 4.1.6 Risk Management Plan

The Service Provider shall assist the Principal to identify, assess, treat, monitor, review and report the project risks and safety hazards for the project. The Service Provider shall accept ownership of risk control and risk treatment tasks as nominated by the Principal.

The Service Provider shall ensure that appropriately qualified and experienced safety personnel are available to assist in the identification and mitigation of risks and in the preparation of the risk and safety documentation, including the Risk Management Plan (RMP).

The final RMP shall be submitted to the Principal within the timeframes detailed in Section 2.5, Table 1.

#### 4.1.7 Construction Environmental Management Plan

The Service Provider must develop a Construction Environmental Management Plan (CEMP) for the Services demonstrating consistency with the Principal's Review of Environmental Factors (REF), any conditions of approval and required mitigation measures.

The *Construction Environment Management Framework (CEMF)* is a Sydney Metro standard that guides the content of construction environmental management plans. Noting the scale of the Works Section 3.2(e) of the CEMF can be applied whereby minimum requirements can be identified.

1. Accordingly, as a minimum the Service Provider is required to produce a Construction Environmental Management Plan that:
  - a. Addresses the requirements of Sections 3.2(a) and (d), 3.4, 3.7, 3.8, 3.9, 3.10(b), 3.11(a) to (d), (f) and (g), 3.13, 5.1, 5.2 and 5.3 of the CEMF; and
  - b. Includes a risk assessment against the environmental issues identified in Sections 6 to 17, and includes appropriate mitigation responses. Separate sub-plans against these issues may not be required.
2. Nothing in items a and b above remove the Service Provider's obligation to comply with the requirements of the Planning Approval.

The geotechnical site investigations have the potential to attract significant interest from the community and government/regulatory agencies. Therefore, a high level of environmental and community management is expected of the Service Provider, in consultation with the Principal's planning manager and public communications manager.

The Service Provider shall take note that the standard working hours, unless otherwise approved by the relevant authority and the Principal, are:

- 0700 to 1800 Monday to Friday; 0800 to 1300 Saturday
- No work on Sundays and Public Holidays

Out of Hours working applications are to be submitted to the relevant authority and the Principal for those locations where constraints dictate working outside standard working hours.

The final CEMF shall be submitted to the Principal within 15 business days after Commencement Date.

#### 4.1.8 Interface Management Plan

The Service Provider must produce and agree with the Principal an Interface Management Plan (IMP) identifying relevant interface protocols and the communications tools that will be used to successfully manage interactions with the community.

The Service Provider must nominate a single person to provide a consistent point of contact for all interfaces and interface management issues. The Service Provider shall interface with the IPT, other Service Provider's and the community as requested and permitted by the Principal.

All communication with the community must be consistent with the Principal's Stakeholder and Community Communications Protocol.

The Service Provider shall provide sufficient resources to successfully inform the local community of the nature and timing of upcoming works, coordinate site access and obtain landowner approvals to undertake the relevant surveys.

Communications activities will primarily involve the following:

- Informing landowners in the vicinity of an investigation site a minimum of 10 days, or as required by relevant authorities (Sydney Trains require 6 weeks) prior to works commencing; and

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- Obtaining written approval from the relevant landowner and other interfacing parties as required to undertaking the works with timeframes to be agreed with the Principal.

In addition to written approvals, when accessing privately-owned properties, the Service Provider must:

- Place a courtesy phone call to the occupant and or landowner several days prior to the commencement of work;
- Attempt to alert the occupant by door-knock or similar on each day of planned work prior to accessing the site.

The final IMP shall be submitted to the Principal within the timeframes detailed in Section 2.5, Table 1.

### 4.1.9 Incident Management Plan

The Service Provider must produce and agree with the Principal an Incident Management Plan detailing procedures to be followed in the event of a site emergency. The Incident Management Plan must include, as a minimum, details of nominated first aid personnel on site and contact details of the Principal's contact officer.

The final Incident Management Plan shall be submitted to the Principal within the timeframes detailed in Section 2.5, Table 1.

## 4.2 Environmental Control Maps

The Service Provider must develop Environmental Control Maps (ECM's) for each location of work. The ECM shall refer to the EMP and include site specific environmental management controls and will also demonstrate consistency with the REF, any conditions of approval and required mitigation measures.

All ECM's are required to be endorsed by the Principal prior to works commencing at that location. The Principal's environmental management representative will undertake weekly inspections of the work to ensure compliance.

## 4.3 Project Documentation Protocols

In developing and submitting all project deliverables, the Service Provider must comply with the requirements outlined in the sub-sections below. The SMP should consider how these requirements will be addressed.

### 4.3.1 Electronic Collaborative System

The Principal will establish an Electronic Collaborative System (ECS) for use by the Service Provider. The Service Provider must use this system for all electronic document storage, distribution, receipt and transmittal.

All documentation, reports, submissions, drawings and documents submitted by the Service Provider to the Principal in electronic form shall be in the formats specified by the Principal. Drawings shall be produced in accordance with the Principal's CAD Protocols.



The Principal will provide training for use of the ECS to the Service Provider.

#### 4.3.2 Electronic Format of Data and Documentation

The Service Provider must make available, when requested, electronic copies of all data and documentation for review by the Principal. Final copies / presentations of all data and documentation are to be provided to the principal on through the ECS system TeamBinder.

Electronic copies of data and documentation shall be compatible with the Principal's software and systems. Electronic systems for all subcontract and specialist reports must comply with this requirement.

All design software electronic files are to be made available to the Principal upon request, including but not limited to commercial software and spreadsheets used in design.

#### 4.3.3 Document Quality

The Service Provider must ensure that all draft and final documents are thoroughly proof read and checked prior to submission. All draft and final documents issued to the Principal must be such that they do not require substantial "improvement" as a result of poor document design, editing, or because of lack of appropriate senior review by the Service Provider.

The Service Provider must ensure as a minimum that:

- All draft and final copies of reports are vetted for typographical and grammatical errors before submission and are written in plain English. Technical words and acronyms should be clearly explained at the first point of reference in the reports and included in a glossary at the front of the document;
- All draft and final reports and documents are concise and to the point. Detail that is repeated and/or does not directly relate to or support the findings and recommendations should be omitted;
- The layout of draft and final reports are logically structured and enable ease of reading, is not cluttered by long sentences, inadequate or uneven spacing, or poor presentation. Appendices, annexures and attached data files must also be clearly labelled and readily referenced into the body of the reports;
- Tables, graphs and figures are used to convey information, where possible in reports, rather than lengthy text descriptions. Any tables, graphs and figures must be simple to understand and clearly support the point being made. Titles, scales and legends must be included as appropriate;
- Every document submission including drafts are signed off by an assigned senior internal reviewer;
- Documents are formatted for double sided production. Recycled paper must be used for all hard copies provided; and
- Any style guide developed by the Principal and directed for use, is applied.

#### 4.3.4 Document Submission

All submissions shall be made under cover of a transmittal in both hard and soft copy formats. Soft copy deliverables shall be in PDF format and original native file formats such as Microsoft Office (2010 suite of programs, Excel spreadsheet with formulae included) for reports and CAD formats for drawings in accordance with the Principal's CAD Protocols, or as specifically requested by the Principal. Raw bore logs may be issued in soft copy format only and submitted by electronic means or email as agreed.

All reports or plans are to include a title, date, author (individual and company), company contact details, comment sheets, revision number, status, page headers and footers, executive summary, schedule of key assumptions and bibliography. Any drawings produced shall be numbered in accordance with the Principal's CAD Protocols.

All documents and reports (draft and final) are to be written in clear and precise plain English, of sufficient quality to allow extraction of part or the whole to be issued to stakeholders. The Service Provider shall ensure that all submitted documents are checked and approved prior to delivery to the Principal.

All written reports and plans shall be prepared in a size of A1, A2, A3 or A4 format and bear a scale reference number with revision code. All drawings and associated documentation, such as schematics or schedules, shall bear a drawing number with revision code in accordance with the Principal's CAD Protocols.

The cost to produce all of the plans and deliverables including copies required by this Services Brief shall be included in the appropriate unit rates and hourly rates.

#### 4.3.5 Electronic Format of Data and Documentation

The Service Provider must make available, when requested, electronic copies of all data and documentation for review by the Principal. Final copies / presentations of all data and documentation are to be provided to the principal on through the ECS system TeamBinder.

Electronic copies of data and documentation shall be compatible with the Principal's software and systems. Electronic systems for all subcontract and specialist reports must comply with this requirement.

- All borehole logs, test pit logs, CPT logs, in-situ testing, field testing, laboratory testing and monitoring data (including installation details) must be provided to the Principal in the following electronic formats:
  - PDF; and
  - ASCII data file in the latest RTA AGS format as defined on <http://www.rms.nsw.gov.au/business-industry/partners-suppliers/design-documents/geotechnical-information.html> (Further information on RTA AGS can be obtained at <http://www.datgel.com/AGSRTAFormat.aspx>)

Data must be entered under the individual field headings for all fields, including the GORA, GORB, GOSA, GOSB and DISC fields of AGS RTA groups. For example the GORA field includes separate headings for rock name (3 headings), colour (1 heading), grain size (3 headings), texture, fabric, structure, odour, staining, additional remarks etc.

In addition, the service provider shall include a combined geological description from the GORA and GOSA table in the GEOL.GEOL\_DESC Field.

Data that is not entered in the correct fields and under the correct headings will not be accepted by the Principal until it has been correctly entered.

The most recent TfNSW gINT library and template can be obtained on request from the RMS Geotechnical Section for data entry.

- All GIS data produced for the project must be supplied to the Principal in ESRI ArcGIS10 format Map Package (MPK). This is to be projected in MGA coordinate system in the appropriate zone. As a minimum data this data must include test site locations and the geology map. All spatial information obtained as part of the investigations must be included.
- All design software electronic files are to be made available to the Principal upon request, including but not limited to commercial software and spreadsheets used in design.

#### 4.3.6 Document Review

The Service Provider shall submit all documents progressively to the Principal in accordance with an agreed programme of staged delivery. The Principal shall review and provide written comments on the submission as follows:

- Reject the submission if in the opinion of the Principal, the submission or any part does not comply with the requirements of the Agreement and stating the nature of the non-compliance; or
- Provide no objection with comments or;
- Have no objection on the submission.

If upon receipt of the Principal's comments the Service Provider fails to respond in a manner satisfactory to the Principal, the submission shall be deemed to have been rejected.

If any submission or part thereof is rejected or deemed to be rejected, the Service Provider shall resubmit an amended document within a reasonable timeframe as agreed with the Principal. The Principal reserves the right to withhold the progress payment until the document is resubmitted and accepted.

The Principal shall review and provide written comments on any document submitted, within 7 days of receipt. The Service Provider shall respond to the comments within 5 days or such other period as may be directed by the Principal. If the Principal does not provide comment within the 7 day period then it will be deemed acceptable.

## 4.4 Project Governance & Reporting

A number of governance forums for the control of the Project are being established, whereby the IPT will formally report to the Principal and other key stakeholders on a regular basis.

The requirements for governance and reporting are described further in the sections below.

### 4.4.1 Weekly Coordination Meeting

The Service Provider shall attend a weekly coordination meeting with the Principal. The aim of this meeting is to:

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- Inform the Sydney Metro City & Southwest management team of progress of works, including progress with community notification;
- Allow the progressive submission of borehole logs and laboratory test result sheets;
- Inform the Service Provider regarding changes to the tunnel alignment and depth that may impact on the investigation;
- Inform the Service Provider regarding the laboratory testing requirements for each borehole.

### 4.4.2 Service Provider's Monthly Progress Report

At the end of each reporting period the Service Provider shall prepare and present a concise Monthly Progress Report (MPR) to the Principal. The progress report shall be no greater than 5 pages and shall address the following aspects of the Services:

- Executive summary one page;
- Progress and status against the programme, including projected final and stage completion dates;
- Issues affecting or likely to affect the Services, including the forecast effects on the work and progress;
- Decisions made/required affecting or likely to affect progress and costs;
- A graph comparing the expenditure to date and the forecast cost to complete against the baseline budgets;
- Performance against the Performance Indicators; and
- A list of issues requiring action by others if any.

### 4.4.3 Timekeeping

On a weekly basis (by noon every Tuesday), the Service Provider's personnel must prepare and submit to the Principal signed timesheets for all team members changed on a daily or hourly basis, coded in accordance with agreed cost codes and weekly progress report. The Principal shall review and sign these off as appropriate. The signed timesheets, in conjunction with rates contained in the PSC, shall be used by the Service Provider to prepare the monthly invoice for payment.

### 4.4.4 Performance Reviews

Regular performance reviews will be held to allow the Principal and the Service Provider to formally assess the performance of the Service Provider in delivering the Services.

The performance reviews will be conducted at intervals no greater than three months and will be conducted by the Principal's and the Service Provider's Project Director.

Outside of the mandatory performance review, the Service Provider is expected to review and modify its own performance at regular intervals. This may include internal audits and monitoring and communication of non-compliances.

## 4.5 Cost Management

The Service Provider will be paid on a lump sum fee basis for the provision of the whole of the Services.

Variations to the Services are to be charged on two separate basis, as follows:

<b>Geotechnical Engineering</b>	The Service Provider will be paid a fee calculated on a time basis of work actually performed in providing the Services using hourly and daily rates, as contained within Annexure B of the PSC, up to an agreed upper limiting fee.
<b>Site Investigations</b>	<p>The Service Provider will be paid a fee calculated on a unit rate basis of work actually undertaken for all site based work, using the unit rates contained within Annexure B of the PSC.</p> <p>Management of site investigations will be charged at an hourly rate as and when site investigations are undertaken.</p> <p>All payments will be backed with approved Work Orders from the Principal. The Department of Transport will not be liable to pay any amount in excess of this upper limiting fee without Department of Transport's prior written consent.</p>

The Service Provider is required to keep continuous records of all costs and notify the Principal of any forecast deviation from the fee estimate. The fee estimate must not be exceeded without prior written approval from the Principal. All invoices must be supported with a Work Order reference together with timesheets signed by the Principal.

## 4.6 Planning Approval

It is anticipated that the majority of the proposed site investigation activities, as mitigated, would be classified as exempt development. However an assessment and determination under Part 5 of the Environmental Planning & Assessment Act 1979, informed by the preparation of a Review of Environmental Factors (REF), will be undertaken for due diligence purposes and to ensure minimal environmental impact. An overarching REF will be prepared for the site investigation activities, by the Principal prior to the Service Provider commencing the services. The REF will generally assess the proposed activity in total along the corridor and set guiding principles and identify broad mitigation measures. The Service Provider will be required to undertake the works consistent with the REF and any conditions of approval. A Site Assessment Checklist (template to be provided in the REF) and an Environmental Control Map are to be prepared for each bore hole by the service provider and provided to the Principal for approval prior to works commencing at that site.

The Service Provider will meet the requirements under any other Act to obtain an approval, licence or permit for, or concurrence for, the site investigation activities, including but not limited to The Heritage Act (1977), Protection of the Environment Operations Act (1997) and the Roads Act (1993).

## 4.7 Collaborative Audit Process

The Principal and Service Provider shall implement a regular audit regime that will be collaborative in nature so that the planning for, and performance of the audits are carried out jointly by the parties. Similarly, the documents describing the outcomes of audits will be shared in a way that promotes the principles of “continuous improvement”. Audits may be carried out by the Principal or other Service Providers.

## 4.8 Safety Management

Transport for NSW is committed to delivering safe transport and to protecting the health, safety and welfare of all people at the workplace. Safety and Wellbeing is one of the six core values of the Sydney Metro Delivery Office and the service provider will be required to demonstrate this during the delivery of the service. TfNSW’s Safety Management System is accredited by the Office of the National Rail Safety Regulator which allows TfNSW to perform the function of a rail infrastructure manager under the Rail Safety National Law (NSW) 2012. The Sydney Metro Delivery Office implements this through the Sydney Metro Project Safety Management Plan (PSMP). The Service Provider will be responsible for developing a Safety Management Plan that is compliant with the requirements of the PSMP in relation to Safety Management.

The Service Provider’s Safety Management Plan must address all of the requirements of a Principal Contractor for construction work.

The service provider’s Safety Management Plan and procedures will be required to conform with Sydney Metro’s requirements in relation to rail safety worker training and competence, fatigue, drugs and alcohol, working in the rail corridor, excavation/services, hazardous materials and plant safety.

The Service Provider will be required to facilitate a safety risk workshop at which Sydney Metro staff will be attendees. A risk register will be developed following the risk workshop and will be reviewed at regular intervals in agreement with Sydney Metro.

## 4.9 Risk Management

The Service Provider must comply with the requirements of the Sydney Metro Risk Management System that includes policies, standards, procedures and tools and also specific review and reporting requirements.

## 4.10 Sustainability

Transport for NSW is committed to procuring sustainable products, works and services where possible. The Project’s Environment and Sustainability Policy requires that environment and sustainability specific processes are applied to the procurement of delivery activities, with the supporting objective to “influence contractors, sub-contractors and suppliers of materials to adopt sustainable practices”.

Transport for NSW requires the Service Provider to:

- a) Comply with the Project’s Environment and Sustainability Policy specifically in relation to supply chain management.

- b) Work with the Project's Principal Manager - Sustainability, to ensure best practice is adopted throughout the provision of the Services.

## 4.11 Probity

The Service Provider must act in accordance with Government probity and other requirements and other Government practice requirements and guidelines. This includes, in particular, the requirements of the current NSW Government *Code of Practice for Procurement* and the related implementation guidelines.

### **Conduct and Ethics**

The Service Provider and its project personnel must also comply with the TfNSW Conduct and Ethics policies including:

- *Code of Conduct*
- *Conflicts of Interest Policy*
- *Statement of Business Ethics*

It is specifically noted that these codes and policies apply to **everyone** who undertakes work on behalf of TfNSW whether permanent or temporary staff, staff assigned or seconded to TfNSW, independent contractors, skill hire and consultants/ Service Providers.

The Statement of Business Ethics provides guidance and instruction to Transport for NSW's commercial partners on the behaviours expected of them when doing business with us. Compliance is a condition of contract with Transport for NSW.

## Appendix A Other Service Providers

The other Service Providers are:

Service Provider	Summary of Services
<b>PBAJV</b>	<p>The Principal has appointed a Technical Services Provider to:</p> <ul style="list-style-type: none"> <li>• undertake all studies, investigations, design, documentation and reporting to design the relevant Sydney Metro City &amp; Southwest components;</li> <li>• apply (and where relevant augment) the "Infrastructure and Rail Systems solutions" developed and set out in the Sydney Metro Northwest Reference Design for the relevant Sydney Metro City &amp; Southwest components;</li> <li>• produce fully integrated designs, with all interfaces managed and coordinated with relevant parties including any other Sydney Metro service providers packages and stakeholders requirements;</li> <li>• make suitable provision for all interface management activities and resolution processes across the various disciplines and stakeholders associated with the preparation of the deliverables for Sydney Metro;</li> <li>• produce designs that incorporate all necessary functional, environmental, economic, whole of life, social, aesthetic and sustainability factors;</li> <li>• develop options and technical reports to determine the overall whole of life cost solution;</li> <li>• implement quality assurance processes to ensure the provision of high quality services and documentation;</li> <li>• implement Systems Engineering, Safety and Systems Assurance as part of the design development and produce design and assurance reports throughout the process which provides evidence of the implementation of such processes;</li> <li>• develop and describe construction methodology, rates of progress and working site requirements to enable construction of tunnels, caverns and station shafts;</li> <li>• implement Reliability, Availability, Maintainability (RAM) processes as part of the design development;</li> <li>• identify potential risks and opportunities throughout the design process, implementing a risk management system to assess and mitigate risks, as well as realise opportunities;</li> <li>• ensure that the designs can be constructed within the prescribed milestones for construction of the relevant Sydney Metro City &amp; Southwest components;</li> <li>• identify potential hazards associated with the design and, where feasible, eliminate these design hazards;</li> <li>• engage and manage any required sub-consultants to carry out specialist studies to fulfil the requirements of the Services;</li> <li>• coordinate the output of other service providers engaged by the Principal;</li> <li>• provide technical support and advice to the Principal in respect of relevant development consent applications under the Environmental Planning and Assessment Act 1979 (NSW) specific to the Project or which may affect the Project; and</li> </ul>



Service Provider	Summary of Services
	<ul style="list-style-type: none"> <li>ensure that design documentation is updated to include requirements from revised standards during the design process.</li> </ul>
<b>Cost, Risk &amp; Schedule</b>	<p>The Principal will appoint a cost, risk and schedule advisor to develop capital cost estimates for the Project, together with quantitative risk assessment and establishment of a delivery schedule. The "Cost, Risk And Schedule Advisor" will manage the establishment of the Project risk profile and ensure the cost and schedule are reflective of this.</p>

## Appendix B Technical Requirements for Field Investigations

The work required to be undertaken for each borehole type in schedule is described below. The Service Provider shall carry out all works and undertake all processes necessary to complete the works described below in accordance with the requirements of the site investigation specification contained in this document.

### B1 Borehole Type A (Total Depth of Investigation 35m)

- Services identification including Dial Before You Dig services locator and ground penetrating radar (if necessary);
- Preparation of Environmental Control Maps;
- Preparation of Site Specific Health & Safety Checklist, including DSS/DBYD, Road Opening Permits, Road Opening Licence, Traffic Control Plans, Signed Out of Hours Approval Form , Signed Environmental Development Checklist, Heritage Exemptions (as required);
- Establish drill rig at approved site investigation location on land;
- Preparation of traffic control plan and Road Occupancy Permit application and approval;
- Set up drill rig including breaking out hard surfacing (pavements or concrete), grout drill hole on completion with cement grout, pack up, site reinstatement, remove spoil and clean-up;
- Non-core vertical drill in overburden soil for a depth of up to 5m including logging, SPT's, and undisturbed sample collection and ground water testing in accordance with Appendix B;
- Core drill in rock for a length of up to 30m including logging, Point Load Strength tests at 1m intervals, core boxes and core photography;
- Conduct up to three (3) in-situ water pressure tests (packer testing) in rock including presentation and interpretation of results;
- Disposal of waste material/spoil to an appropriate waste facility;
- Carry out borehole imaging; and
- Survey the location of the investigation drill hole to MGA (GDA1994 MGA Zone 56) coordinates and RL to AHD.

### B2 Borehole Type B (Total Depth of Investigation >35m)

- Services identification including Dial Before You Dig services locator and ground penetrating radar (if necessary);
- Preparation of Environmental Control Maps;
- Preparation of Site Specific Health & Safety Checklist, including DSS/DBYD, Road Opening Permits, Road Opening Licence, Traffic Control Plans, Signed Out of Hours Approval Form , Signed Environmental Development Checklist, Heritage Exemptions (as required);
- Establish drill rig at approved site investigation location on land;
- Preparation of traffic control plan and Road Occupancy Permit application and approval;
- Set up drill rig including breaking out hard surfacing (pavements or concrete), grout drill hole on completion, pack up, site reinstatement, remove spoil and clean-up;
- Non-core vertical drill in overburden soil for a depth of up to 5m including logging, SPT's
- and undisturbed sample collection and ground water testing in accordance with Appendix B;
- Core drill in rock for a length of up to 55m including logging, Point Load Strength tests at 1m intervals, core boxes and core photography;
- Conduct up to three (3) in-situ water pressure tests (packer testing) in rock as specified by the Principal including presentation and interpretation of results;
- Disposal of waste material/spoil to an appropriate waste facility;
- Carry out borehole imaging; and
- Survey the location of the investigation drill hole to MGA (GDA1994 MGA Zone 56) coordinates and RL to AHD.

### B3 Borehole Type C (Inclined Drilling with Core Orientation (60°))

- Services identification including Dial Before You Dig services locator and ground penetrating radar (if necessary);
- Preparation of Environmental Control Maps;
- Preparation of Site Specific Health & Safety Checklist, including DSS/DBYD, Road Opening Permits, Road Opening Licence, Traffic Control Plans, Signed Out of Hours Approval Form , Signed Environmental Development Checklist, Heritage Exemptions (as required)
- Establish drill rig at approved site investigation location on land;
- Preparation of traffic control plan and Road Occupancy Permit application and approval;
- Set up drill rig including breaking out hard surfacing (pavements or concrete), grout drill hole on completion, pack up, site reinstatement, remove spoil and clean-up;
- Non Core Drilling (0 - 20m Length Down Hole)

- Non Core Drilling (>20m Length Down Hole)
- Core Drilling (0- 20m Length Down Hole) including core orientation tool, core boxes and Point Load Testing
- Core Drilling (>20m Length Down Hole) including core orientation tool, core boxes and Point Load Testing.
- Disposal of waste material/spoil to an appropriate waste facility;
- Carry out borehole imaging ; and
- Survey the location of the investigation drill hole to MGA (GDA1994 MGA Zone 56) coordinates and RL to AHD.

#### B4 Borehole Type D (Inclined Drilling with Core Orientation (45°))

- Services identification including Dial Before You Dig services locator and ground penetrating radar (if necessary);
- Preparation of Environmental Control Maps;
- Preparation of Site Specific Health & Safety Checklist, including DSS/DBYD, Road Opening Permits, Road Opening Licence, Traffic Control Plans, Signed Out of Hours Approval Form , Signed Environmental Development Checklist, Heritage Exemptions (as required);
- Establish drill rig at approved site investigation location on land;
- Preparation of traffic control plan and Road Occupancy Permit application and approval;
- Set up drill rig including breaking out hard surfacing (pavements or concrete), grout drill hole on completion, pack up, site reinstatement, remove spoil and clean-up;
- Non Core Drilling (0 - 20m Length Down Hole)
- Non Core Drilling (>20m Length Down Hole)
- Core Drilling (0- 20m Length Down Hole) including core orientation tool, core boxes and Point Load Testing
- Core Drilling (>20m Length Down Hole) including core orientation tool, core boxes and Point Load Testing.
- Disposal of waste material/spoil to an appropriate waste facility;
- Carry out borehole imaging; and
- Survey the location of the investigation drill hole to MGA (GDA1994 MGA Zone 56) coordinates and RL to AHD.

#### B5 Borehole (CPTu) Type E (Total Depth of Investigation)

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- Services identification including 'Dial Before You Dig' services locator and ground penetrating radar (if necessary);
- Preparation of Environmental Control Maps;
- Preparation of Site Specific Health & Safety Checklist, including DSS/DBYD, Road Opening Permits, Road Opening Licence, Traffic Control Plans, Signed Out of Hours Approval Form , Signed Environmental Development Checklist, Heritage Exemptions (as required);
- Establishment of CPTu rig;
- Set up CPTu rig, pack up, site reinstatement, remove spoil and clean-up, if any;
- Survey the location of the investigation CPTu hole to MGA (GDA1994 MGA Zone 56) coordinates and RL to AHD;
- Disposal of any waste material/spoil to an appropriate waste facility; and
- Preparation of traffic control plan and Road Occupancy Permit application and approval.

## Appendix C Summary of Cost Items

### C1 Section A - Preliminaries

Section	Unit	Title/Description
A1	Lump Sum	<b>Project management</b> including weekly meetings, supervision and coordination of site access for detailed geotechnical investigation and testing (including road occupancy permit and traffic control, etc.), monitoring of the services and all associated activities
A2	Lump Sum	<b>Preparation and Submission of Reports</b> <ul style="list-style-type: none"> <li>• Monthly Progress Report (MPR)</li> <li>• Geotechnical Data Report (GDR)</li> <li>• Contamination Assessment Report (CAR)</li> <li>• Groundwater Monitoring Report (GWMR)</li> </ul>
A3	Weekly cost	<b>Project Management of site investigations</b> Project Management of the investigations including, but not limited to liaison with the Principal and the day to day management of the investigations and reporting of progress.
A4	Each	<b>Soil sample and Rock Core Storage</b> To the end of 2019 at a site like the NSW Core library at Londonderry, including delivery.
A5	Per site	<b>Site specific safety management plan</b> Shall include all costs associated with the preparation of site specific safety management plans required for each site.

## C2 Section B – Drilling

Section	Unit	Title/Description
B1	Each	<p><b>Establishment per Rig</b></p> <p>Shall include all costs associated with mobilising a suitable rig with all relevant testing and sampling equipment as outlined in the Services Brief.</p>
B2	Per hole	<p><b>Management per hole</b></p> <p>Costs per hole to cover all management costs including, but not limited to site examination (including with the Principal), obtaining approvals, service clearance, pedestrian management, traffic control plans and all other necessary items for drilling to proceed. These works shall also include consideration of all applicable safety, environment and legal requirements.</p> <p>Work within the rail corridor requiring support by Protection Officers will be funded separately based on hourly rates from the relevant NSW Government panel.</p>
B3	Per hole	<p><b>Set up, survey and reinstatement</b></p> <p>Shall apply to successful boreholes and include the cost of travel between boreholes, set up, reinstatement of the ground surface to its original condition, appropriate spoil disposal (including contaminated spoil, water and drilling fluid), safety, environmental and securing the site for protection of the equipment, works and the public over night, at weekends and at any other time where the site of a borehole is unattended.</p>
B4	Per night	<p><b>Additional Night Work</b></p> <p>Shall provide extra over rate for all additional costs associated with carrying out work at night</p>
B5	Per day	<p><b>Additional Traffic Control</b></p> <p>Shall include a daily rate for all costs associated with provision of traffic control for a borehole</p>
B6	Per hole	<p><b>Borehole Grout Backfilling</b></p> <p>Shall include all costs associated with fully grout backfilling boreholes, it should include but not be limited to grout, grout pump (or similar) checking the hole for subsidence after grouting etc.</p>
B7	Per day	<p><b>Wet Weather Standby Costs</b></p> <p>Shall include all costs in the event of wet weather as a daily rate.</p>

<b>Type A - Vertical Drilling – (including log production)</b>		
B8	m	<b>Non Core Drilling (0 - 20m Depth) including sampling</b> Shall include all costs associated with non core drilling (e.g. Wash bore, casing, augering, etc.) including but not limited to, sampling and testing (contamination and geotechnical e.g. SPT, U75), water supply, supervision, consumables, equipment damage/loss, safety and environmental controls.
B9	m	<b>Non Core Drilling (&gt;20m Depth) including sampling</b> As per Item B8 for drilling carried out below 20m depth
B10	m	<b>Core Drilling (0- 35m Depth) including core boxes and Point Load Testing</b> Shall include all costs associated with set up to core, core drilling (HQ), boxing core, wrapping core where appropriate (see specification) core (-) photography; point load index testing, water supply, supervision, consumables, ~ equipment damage/loss, safety and environmental controls. etc.
B11	m	<b>Core Drilling (&gt;35m Depth) including core boxes and Point Load Testing</b> As per Item B10 for drilling carried out below 35m depth
B12	m	<b>Drill only (no sampling e.g. for Piezo) - Non Core Drilling (0 - 20m Depth)</b> Shall include all costs associated with non core drilling as per Item B10 where sampling and testing are not required
B13	m	<b>Drill only (no sampling e.g. for Piezo) - Non Core Drilling (&gt;20m Depth)</b> As per Item B12 for drilling carried out below 20m depth
B14	m	<b>Additional drilling in Gravel</b> Shall include all additional costs associated with non core drilling where gravel is encountered, it should include but not be limited to, sampling and testing (contamination and geotechnical e.g. SPT, U75), water supply, supervision, consumables, equipment damage/loss, safety and environmental controls.
B15	m	<b>Additional drilling and sampling in Fill (0 - 5m Depth)</b> Shall include all costs associated with non core drilling where fill is encountered, it should include but not be limited to, sampling and testing (contamination and geotechnical e.g. SPT, U75), water supply, supervision, consumables, equipment damage/loss, safety and environmental controls.
B16	m	<b>Additional drilling and sampling in Fill (5 - 10m Depth)</b> As per item B15 for drilling carried out from 5m to 10m depth
B17	m	<b>Additional drilling and sampling in Fill (&gt;10m Depth)</b> As per item B15 for drilling carried out below 10m depth
<b>Type B - Inclined Drilling with Core Orientation (60°)(including log production)</b>		
B18	m	Non Core Drilling (0 - 20m Length Down Hole)
B19	m	Non Core Drilling (>20m Length Down Hole)



B20	m	Core Drilling (0- 20m Length Down Hole) including core orientation tool, core boxes and Point Load Testing
B21	m	Core Drilling (>20m Length Down Hole) including core orientation tool, core boxes and Point Load Testing.
<b>Type C - Inclined Drilling with Core Orientation (45°)(including log production)</b>		
B22	m	Non Core Drilling (0 - 20m Length Down Hole)
B23	m	Non Core Drilling (>20m Length Down Hole)
B24	m	Drilling (0- 20m Length Down Hole) including core orientation tool, core boxes and Point Load Testing
B25	m	Core Drilling (>20m Length Down Hole) including core orientation tool, core boxes and Point Load Testing

### C3 Section C – CPTu and In-situ Testing

Section	Unit	Title/Description
C1	Each	<b>Establish Per CPT Rig</b> Shall include all costs associated with mobilising a suitable cone penetration testing penetrometer with pore pressure measurement (CPTu) with all relevant testing and sampling equipment outlined in the specification.
C2	Per hole	<b>Management per CPT probe</b> Shall include all consultation with Principal, site examination (including with Principal), obtain approvals, services clearance, traffic control plans and all other necessary items for probing to proceed. As described above including consideration of all applicable safety, environment and legal requirements
C3	Per hole	<b>Set up, survey and reinstate per test location</b> Shall apply to all successful CPT tests and shall include the cost of travel between CPT test sites, set up, safety, environmental controls, reinstatement of the ground surface to its original condition on completion
C4	m	<b>Cone Penetrometer Testing</b> Shall include all the costs associated with carrying out CPTu testing including but not limited to supervision, consumables, equipment damage/loss, safety and environmental controls, processing and provision of electronic data and provision of raw, unprocessed data
C5	Each	<b>Dissipation Testing</b> Shall include all costs associated with carrying out a successful dissipation test in accordance with the specification.
<b>Borehole In-situ testing</b>		

Section	Unit	Title/Description
C6	Each	<p><b>Additional Standard Penetration Test or Combination of Piston Sample and Push Tube Sample Testing (in addition to required sampling frequency)</b></p> <p>Shall include all costs associated with the carrying out of additional standard penetration testing (SPT) or combination of piston sample and push tube sample testing beyond that which has been outlined in the specification.</p> <p>If using a barge, testing at 1.0m intervals in the alluvium, with an allowance of 2 x U50 tube samples per borehole.</p>
C7	Each	<p><b>Additional U75 Sample (in addition to required sampling frequency)</b></p> <p>This cost item is to include all costs associated with the carrying out of additional U75 undisturbed sampling beyond that which has been outlined in the specification</p>
C8	Per test	<p><b>Packer Test</b></p> <p>Per successful test. Shall include all costs associated with carrying out packer testing as outlined in the- specification, it should include but not be limited to, costs for equipment, mobilisation, supervision, safety, environmental, equipment damage/loss, etc.</p>

### In situ Stress Testing

#### "Method A" Stress Testing

##### Method as Nominated in Proposal

Section	Unit	Title/Description
C10	Lump sum	<p><b>Project Establishment (per phase only)</b></p> <p>The project establishment rate for stress testing</p>
C11	Per hole	<p><b>Set Up Per Borehole</b></p> <p>Shall be a single rate per borehole at which stress tests are attempted including, but not limited to, travel between sites, set up, safety, environmental controls, reinstatement of the ground surface (as necessary) to its original condition on completion.</p>
C12	Each	<p><b>Test (Successful)</b></p> <p>Per test</p>
C13	Each	<p><b>Test (Partial successful)</b></p> <p>Per test</p>
C14	Each	<p><b>Test (Unsuccessful)</b></p> <p>Per test</p>

### In situ Stress Testing

#### "Method B" Stress Testing

##### Method as Nominated in Proposal

Section	Unit	Title/Description
C15	Lump sum	<b>Project Establishment</b> As per item C10
C16	Per hole	<b>Set Up Per Borehole</b> As per Item C11
C17	Each	<b>Test (Successful)</b> As per Item C12
C18	Each	<b>Test (Partial successful)</b> As per Item C13
C19	Each	<b>Test (Unsuccessful)</b> As per Item C14

**Borehole Wall Survey (Optical or Acoustic Televiewer)**

Section	Unit	Title/Description
C20	Lump sum	<b>Establishment</b> The establishment rate for Borehole Wall Survey
C21	Per hole	<b>Set Up Per Borehole</b> Shall be a single rate per borehole at which stress tests are attempted including, but not limited to, travel between sites, set up, safety, environmental controls, reinstatement of the ground surface (as necessary) to its original condition on completion" cleaning the hole, filling the hole with water, water supply etc.
C22	m	<b>Borehole Wall Survey Testing and Reporting</b> Shall include all the costs associated with carrying out the borehole wall survey including, but not be limited to, costs for equipment, mobilisation, supervision, safety, environmental, equipment damage/loss, etc. and reporting.
C23	Per hole	<b>Core Orientation (for inclined boreholes)</b>

## C4 Section D - Piezometer Installations

Section	Unit	Title/Description
D1	Each	<p><b>Standpipe/Monitoring Well per installation</b></p> <p>Shall include all costs and equipment required to install a standpipe monitoring well at each of the nominated locations, it shall include but not be limited to costs for equipment, mobilisation, supervision, safety, environmental, equipment damage/loss, lockable steel gatic covers, all necessary environmental standard PVC pipe, bentonite; grout, filter sock etc.</p>
D2	m	<p><b>Install Standpipe/Monitoring Well</b></p> <p>Shall include all the costs associated with successfully installing standpipe/monitoring wells it shall include but not be limited to time for supervision, time to ensure backfill materials adequately settle, spoil removal, site reinstatement, etc</p>
D3	Each	<p><b>Vibrating Wire Piezometer per Installation</b></p> <p>Shall include all costs and equipment required to supply and install vibrating wire piezometer it shall include but not be limited to instrumentation, data logger, grout etc.</p>
D4	m	<p><b>Install Vibrating Wire Piezometer</b></p> <p>Shall include all the costs associated with successfully installing vibrating wire piezometers as specified by the principal, it shall include but not be limited to time for supervision, time to ensure backfill materials adequately settle, spoil removal, site reinstatement, etc</p>
D5	Per well	<p><b>Develop Piezometers/Monitoring Wells</b></p> <p>Shall include all costs associated with developing piezometer/monitoring wells at the nominated locations, it shall include but not be limited to pump/bailer as required, EC, pH, redox and temperature readings before and after, required, water disposal, safety, environmental controls, maintenance of the well, covers etc.</p>
D6	Per well	<p><b>Piezometer Monitoring</b></p> <p>Shall include all costs associated with the monitoring of the piezometers and standpipe/monitoring wells for each phase of the works, it shall include but not be limited to providing information for the interim data reports, input into a final groundwater monitoring report, carrying out the monitoring and all associated controls including safety, environmental, etc.</p>
D7	Each	<p><b>Monitoring Well Groundwater Sampling</b></p> <p>Shall include all costs associated with obtaining a groundwater sample from monitoring wells its shall include but not be limited to include all sampling equipment and consumables, traffic management plans, traffic control measures, etc.</p>
D8	Per well	<p><b>Well Grout Backfilling</b></p> <p>Shall include all costs associated with fully grout backfilling boreholes, it should include but not be limited to grout, grout pump (or similar) checking the hole for subsidence after grouting etc.</p>

Section	Unit	Title/Description
D9	Per well	<b>Well Grout Backfilling (with tarmac top)</b> As per D8, but will tarmac cap relevant local authority standard.

## C5 Section F - Lab Testing Geotechnical

Testing shall be carried out in accordance with industry standards. The assumed test standard shall be nominated within the tender submission.

Section	Unit	Title/Description
F01	Each	<b>Moisture content</b> Per test carried out successfully
F02	Each	<b>Atterberg Limits (With Linear Shrinkage)</b> Per test carried out successfully
F03	Each	<b>Particle Size Distribution</b> Per test carried out successfully
F04	Each	<b>Particle Size Distribution with Hydrometer</b> Per test carried out successfully
F07	Each	<b>Organic Matter</b> Per test carried out successfully
F08	Each	<b>Petrographic Analysis</b> Per test carried out successfully
F09	Each	<b>X-ray Diffraction for clays (qualitative)</b> Per test carried out successfully
F10	Each	<b>X-ray Diffraction for rock (qualitative)</b> 0 Per test carried out successfully
F11	Each	<b>X-ray Diffraction for rock (SIROQUANT quantitative)</b> Per test carried out successfully
F12	Each	<b>Rock Minerology (Argillaceous Minerals)</b> Per test carried out successfully
F13	Each	<b>Rock UCS (NQ)</b> Per test carried out successfully
F14	Each	<b>Rock UCS (HQ)</b> Per test carried out successfully
F15	Each	<b>Rock Modulus (NQ)</b> Per test carried out successfully
F16	Each	<b>Rock Modulus (HQ)</b> Per test carried out successfully

Section	Unit	Title/Description
F17	Each	<b>Rock Joint Shear Strength (NQ)</b> Per test carried out successfully
F18	Each	<b>Rock Joint Shear Strength (HQ)</b> Per test carried out successfully
F20	Each	<b>Cerchar Abrasion</b> Per test carried out successfully
F21	Each	<b>Goodrich Drillability</b> Per test carried out successfully
F22	Each	<b>Goodrich Wear Number</b> Per test carried out successfully
F23	Each	<b>Brazilian Tensile Strength</b> Per test carried out successfully
F25	Each	<b>Traixial testing (undrained with pore water pressure measurements)</b> Per test carried out successfully
F26	Each	<b>Laboratory Compaction</b> Per test carried out successfully
F27	Each	<b>Maximum Dry Density (Included with item F6)</b> Per test carried out successfully
F28	Each	<b>Bulking Factors (In situ Density)</b> Per test carried out successfully
F32	Each	<b>Contaminated Soils – Chemical Residue Testing</b> Per test carried out successfully
F33	Each	<b>Contaminated Soils - Chemical Residue Testing; Additional cost for Cattle Dip Sites</b> Per test carried out successfully
F34	Each	<b>Contaminated Soils - Chemical Residue Testing; Additional cost for Heavy Timber Industries</b> Per test carried out successfully
F36	Each	<b>Petrographic Analysis (ASTM14575454654)</b> Per test carried out successfully
F37	Each	<b>Unconsolidated Undrained Triaxial Test (UU)</b> Per test carried out successfully
F38	Each	<b>One Dimensional Consolidation (Oedometer)</b> Per test carried out successfully
F39	Each	<b>Shear Box</b> Per test carried out successfully
F40	Each	<b>Resistivity</b> Per test carried out successfully

Section	Unit	Title/Description
F41	Each	<b>Sulphate &amp; chloride</b> Per test carried out successfully
F42	Each	<b>Conductivity Test (Salinity)</b> Per test carried out successfully

## C6 Section G - Lab Testing Contamination Soil Samples

Section	Unit	Title/Description
G01	Each	<b>-SPOCAS</b> Per test carried out successfully
G02	Each	<b>-SCr</b> Per test carried out successfully
G03	Each	<b>-SCr Suite</b> Per test carried out successfully
G04	Each	<b>-pHFOX</b> Per test carried out successfully
G06	Each	<b>Dioxins</b> Per test carried out successfully
G07	Each	<b>Herbicides – Phenoxy Acid</b> Per test carried out successfully
G08	Each	<b>Herbicides - Triazine</b> Per test carried out successfully
G09	Each	<b>Hexavalent Chromium</b> Per test carried out successfully
G10	Each	<b>Single Metal eg Lead</b> Per test carried out successfully
G11	Each	<b>5 Heavy metals suite - As, Cd, Cr, Pb, Hg</b> Per test carried out successfully
G12	Each	<b>6 Heavy metals suite - As, Cd, Cr, Pb, Hg, Ni</b> Per test carried out successfully
G13	Each	<b>7 Heavy metals suite - As, Cd, Cr, Cu, Pb, Hg, Zn</b> Per test carried out successfully
G14	Each	<b>8 Heavy metals suite - As, Cd, Cr, Cu, Pb, Hg, Ni, Zn</b> Per test carried out successfully
G15	Each	<b>Cation Suite - Na, K; Ca, Mg</b> Per test carried out successfully

Section	Unit	Title/Description
G16	Each	<b>Mercury</b> Per test carried out successfully
G17	Each	<b>Organochlorine Pesticides (OCP) and PCBs</b> Per test carried out successfully
G18	Each	<b>Organotins (MBT/DBTITBT)</b> Per test carried out successfully
G19	Each	<b>Organic Matter (TOC) by titration</b> Per test carried out successfully
G20	Each	<b>Organic Matter (TOC) by combustion (sediments)</b> Per test carried out successfully
G21	Each	<b>PAH - Polyaromatic Hydrocarbons</b> Per test carried out successfully
G22	Each	<b>Phenolics - Speciated</b> Per test carried out successfully
G23	Each	<b>Phenolics - Total</b> Per test carried out successfully
G24	Each	<b>Phenoxy Acid Herbicides</b> Per test carried out successfully
G25	Each	<b>Phosphorus Total</b> Per test carried out successfully
G26	Each	<b>Total Nitrogen (TKN+NO<sub>x</sub>+TKN)</b> Per test carried out successfully
G27	Each	<b>TPH - Volatile (C6-C9)</b> Per test carried out successfully
G28	Each	<b>TPH volatile (C6-C9) &amp; BTEX</b> Per test carried out successfully
G29	Each	<b>TPH -Semi-volatile (TPH C10-C36)</b> Per test carried out successfully
G30	Each	<b>TPH (C6-C36) + BTEX</b> Per test carried out successfully
G31	Each	<b>TPH Aliphatic/Aromatic Speciation Aliphatic: C16-C35 aliphatic &amp; &gt;C35 Aliphatic &amp; C16, C35 Aromatic</b> Per test carried out successfully
G32	Each	<b>VHC - Volatile Chlorinated / Halogenated Hydrocarbons</b> Per test carried out successfully
G33	Each	<b>VOC - Volatile Organic Compounds</b> Per test carried out successfully



Section	Unit	Title/Description
G34	Each	<b>SVOCs</b> Per test carried out successfully
G35	Each	<b>Antimony (Sb)</b>
G36	Each	<b>Silver (Ag)</b>
G37	Each	<b>DDT</b>
G38	Each	<b>Tributyltin (TBT)</b>

## C7 Section H - Lab Testing Contamination Groundwater Samples

Costs for all lab tests should include but not be limited to courier, lab handling fee, results in ESDAT (where applicable).

Testing shall be carried out in accordance with industry standards. The assumed test standard shall be nominated within the tender submission.

Section	Unit	Title/Description
H01	Each	<b>Ammonia (1 :5) as N</b> Per test carried out successfully
H02	Each	<b>Chloride (Cl) - total</b> Per test carried out successfully
H03	Each	<b>Cyanide - Total</b> Per test carried out successfully
H04	Each	<b>Cyanide - Free</b> Per test carried out successfully
H05	Each	<b>Formaldehyde</b> Per test carried out successfully
H06	Each	<b>Herbicides - Phenoxy Acid</b> Per test carried out successfully
H07	Each	<b>Herbicides - Triazine</b> Per test carried out successfully
H08	Each	<b>Hexavalent Chromium</b> Per test carried out successfully
H09	Each	<b>Single Metal eg Lead</b> Per test carried out successfully
H10	Each	<b>5 Heavy metals suite - As, Cd, Cr, Pb, Hg</b> Per test carried out successfully
H11	Each	<b>6 Heavy metals suite - As, Cd, Cr, Pb, Hg, Ni</b> Per test carried out successfully

Section	Unit	Title/Description
H12	Each	<b>7 Heavy metals suite - As, Cd, Cr, Cu, Fe, Mn, Pb, Hg, Zn</b> Per test carried out successfully
H13	Each	<b>8 Heavy metals suite - As, Cd, Cr, Cu, Fe, Mn, Pb, Hg, Ni, Zn</b> Per test carried out successfully
H14	Each	<b>Cation Suite - Na, K, Ca, Mg</b> Per test carried out successfully
H15	Each	<b>Mercury</b> Per test carried out successfully
H16	Each	<b>Organochlorine Pesticides (OCP) and PCBs</b> Per test carried out successfully
H17	Each	<b>Organotins (MBT/DBT/TBT)</b> Per test carried out successfully
H18	Each	<b>Organic Matter (TOC) by titration</b> Per test carried out successfully
H19	Each	<b>Organic Matter (TOG) by combustion (sediments)</b> Per test carried out successfully
H20	Each	<b>PAH - Polyaromatic Hydrocarbons</b> Per test carried out successfully
H21	Each	<b>Phenolics-Speciati ed</b> Per test carried out successfully
H22	Each	<b>Phenolics - Total</b> Per test carried out successfully
H23	Each	<b>Phenoxy Acid Herbicides</b> Per test carried out successfully
H24	Each	<b>Phosphorus Total</b> Per test carried out successfully
H25	Each	<b>TCLP- semivolatile (preparation only)</b> Per test carried out successfully
H26	Each	<b>TCLP-volatile (preparation only)</b> Per test carried out successfully
H27	Each	<b>ASLP (Australian Standard leaching procedure) (preparation only)</b> Per test carried out successfully
H28	Each	<b>Total Nitrogen (TKN+NOx+TKN)</b> Per test carried out successfully
H29	Each	<b>TPH – Volatile (C6-C9)</b> Per test carried out successfully

Section	Unit	Title/Description
H30	Each	<b>TPH – Volatile (C6-C9) &amp; BTEX</b> Per test carried out successfully
H31	Each	<b>TPH – Semi Volatile (TPH C10 – C36)</b> Per test carried out successfully
H32	Each	<b>TPH (C10 – C36) + BTEX</b> Per test carried out successfully
H33	Each	<b>TPH ID petrol, diesel, oil, other</b> Per test carried out successfully
H34	Each	<b>VHC – Volatile Chlorinated / Halogenated Hydrocarbons</b> Per test carried out successfully
H35	Each	<b>VOC – Volatile Organic Compounds</b> Per test carried out successfully
H36	Each	<b>SVOCs</b> Per test carried out successfully
H37	Each	<b>Rinsate</b> Per test carried out successfully
H38	Each	<b>Trip Spike</b> Per test carried out successfully
H39	Each	<b>Temperature</b>
H40	Each	<b>Dissolved Oxygen</b>
H41	Each	<b>Electrical conductivity</b>
H42	Each	<b>Ph</b>
H43	Each	<b>Oxidation reduction potential</b>
H44	Each	<b>Alkalinity</b>
H45	Each	<b>Sulphate</b>

## Section I – Reporting

Section	Unit	Title/Description
I1	Lump sum	Interim reporting and Digital Data Provision
I2	Lump sum	Geotechnical Data Reports (GDR) - Chatswood to Sydenham (all tranches)
I3	Lump sum	Geotechnical Data Reports (GDR) – Sydenham to Bankstown Upgrade (all tranches)
I4	Lump sum	Groundwater Monitoring report (GWMR)

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Section	Unit	Title/Description
I5	Lump sum	Contamination Assessment Report (CAR) - Chatswood to Sydenham (all tranches)
I6	Lump sum	Contamination Assessment Report (CAR) - Sydenham to Bankstown Upgrade (all tranches)

## Appendix D Safety, Environment and Community Relations

### D1 General Site Requirements

The Service Provider must observe and adhere to the following general requirements for management of the Site and its surroundings:

- the Service Provider must enforce a strict “zero drug and alcohol” policy at the Site. The Principal may demand the immediate and permanent removal of any person reasonably believed to be under the influence of alcohol or other intoxicating substance;
- glass containers are not allowed on Site;
- the use of any portable earphone-equipped music device is prohibited;
- diesel fuel only, in limited quantities, may be stored on Site;
- no fires or burning off is permitted anywhere on Site; and
- all materials and equipment must be stored in a manner that will prevent unauthorised access and the possibility of environmental and climatic damage.

The requirements set out above are to be read in conjunction with and may be additional to the requirements of any Authority Approval, this Service Brief, license or statute.

### D2 Access to Work Site and Security

Other contractors may be working on or adjacent to the Site during the performance of the Services. The Service Provider must co-ordinate the work to minimise the impact on the Site and others on and around the work site.

The Service Provider must comply with all access and other work site requirements including:

- accreditation for, entry to, movement on, and exit from the work site, including site security accreditation;
- removal from the work site of people who, in the opinion of the Principal, are unsuitable; and
- keeping verified, current and full details of each person accredited to enter the work site, and making the details available to the Principal within 24 hours of a request.

### D3 Construction Plant

The Service Provider must ensure that all Construction Plant is properly operated and maintained in accordance with the manufacturer’s instructions and in accordance with the *Work and Safety Regulation 2011 (NSW)* and the associated codes of practice, so as to ensure that it poses no risk to the health and safety of any person on the Site or on land adjoining the Site.

The Service Provider must also:

- ensure that quick hitch attachments fitted to excavators and other earth moving machinery are of the fully automatic type with a secondary locking attachment. The

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secondary attachment is to be capable of preventing the excavator attachment from releasing in the event of a partial or total failure of the power supply or when the operator stops operating the machine. All half-hitch, mechanical-hitch, form-lock, semi-automatic types are prohibited; and

- where mobile plant's operating envelope is capable of encroaching within 3m of the Danger Zone or the safe approach distance to live electrical infrastructure, implement the use of programmable zone limiting devices that limit the hoisting and/or slewing and which are designed to be "fail safe" or which meet Category 4 reliability in accordance with "AS4024.1 Safeguarding of Machinery" or a SIL of 3 under "AS 61508 Functional safety of electrical / electronic / programmable electronic safety-related systems".

## D4 Existing Public Thoroughfares and Rights of Way

The Service Provider must provide unimpeded and uninterrupted access twenty four hours a day, seven days a week:

- for existing formalised pedestrian access to any adjoining railway station;
- for adjoining and nearby property owners, occupiers and users to areas adjacent to and outside the Site;
- to any Rail Transport Agency, including Sydney Trains, and other contractors requiring access to the Rail Corridor through any access gate; and
- for emergency services.

## D5 Existing Utilities

The Service Provider must notify the Principal of any connection, disconnection or interference with existing services. The Service Provider must ensure the community has been notified of any activity that may cause a service disruption in accordance with the procedure in clause 15. In the event of an unintended service disruption, or in the event of an emergency situation, the Service Provider must notify the Principal in line with the incident reporting procedures of this Agreement.

Attention is directed to the possible existence of underground utilities not shown on any drawing, or at locations or elevations different from those shown on any drawing. The Service Provider must ascertain the exact location by potholing of each underground utility identified in the Services Brief or on any drawing prior to doing any work that has the potential to damage such a utility.

The Service Provider must undertake potholing of the borehole locations to a level below the existing utilities locations as identified in the Services Brief and any drawings.

The Service Provider must ensure that any service is only discovered by the undertaking of such potholing works. The Service Provider must comply with the TfNSW standards and procedures relating to working near utilities. The Service Provider must examine all information made available in writing by the Principal to the Service Provider (including the Service Brief and drawings). The Service Provider must consider any risks, contingencies and other circumstances based on the Service Brief and drawings which have an effect on the Service Provider and ensure that all reasonable enquiries are made to obtain further information necessary to mitigate identified risks.

If during the execution of the Service Provider's activities, the Service Provider becomes aware of a utility, the Service Provider must forthwith, and where possible before the physical conditions are disturbed, give written notice thereof to the Principal.

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The Service Provider must provide in that notice to the Principal a statement specifying:

- the conditions encountered and in what respects they differ materially from what the Service Provider should reasonably have expected;
- the additional work and additional resources which the Service Provider estimates to be necessary to deal with the conditions;
- the time the Service Provider anticipates will be required to deal with the conditions and the expected delay in achieving Completion;
- the Service Provider's estimate of the cost of the measures necessary to deal with the conditions; and
- other details reasonably required by the Principal.

The Service Provider must prepare and provide to the Principal for review a Safe Work Method Statement (SWMS) for any service location, potholing or mechanical excavation. The SWMS must be provided at least 2 weeks prior to the intended commencement of any such work.

All utilities disturbed or potholed during the work must be reinstated to the utility's/asset owner's current standards, irrespective of what standard they were constructed to. Where services are identified as differing from issued drawings the Service Provider will provide accurate (surveyed) drawings of the as-built location of services to the Principal for provision to the utility/asset owner.

## D6 Completion, Acceptance and Sign-off

### D.6.1 Make Good Damage to Property or the Environment

The Service Provider must, at its own expense, promptly make good any damage to property or to the environment caused by the Service Provider, or its subcontractors, employees or agents, when carrying out the Services.

### D.6.2 Clean Up of the Site

The Service Provider must clean up and keep clean and tidy the Site and access areas. If the Service Provider fails to comply with any obligation imposed on the Service Provider, the Principal may, after providing sufficient notice to the Service Provider, have the work of cleaning and tidying up carried by other persons and the reasonable cost incurred by the Principal may be recovered by the Principal as a debt due from the Service Provider to the Principal.

## D7 WHS Legislation Requirements

### D.7.1 General

The Service Provider must comply with and ensure that all its employees and subcontractors engaged in carrying out the Services comply with all statutory and authority WHS Legislation requirements, including:

- using work methods that comply with all statutory and authority requirements;
- ensuring the safe movement of persons, vehicles and equipment whilst on the work Site; and
- submission to the Principal of a Safe Work Method Statement, complying with clause 295 of the *Work Health and Safety Regulations 2011 (NSW)* and applicable codes of practice

## Sydney Metro, City and Southwest

and Australian Standards, for any activity that involves Site-based work before that activity commences.

The WHS Legislation requirements are in addition to, but not in substitution for, any statutory requirements and do not limit the powers of the Principal or the liabilities and responsibilities of the Service Provider.

### D.7.2 Managing Health and Safety

The Service Provider must manage health and safety in accordance with the WHS Legislation, Codes and Standards, NSW Government Guidelines and contractual requirements. The Contactor must ensure compliance, by it and those persons it exercises control over, with relevant Laws, the Rail Safety National Law, Codes and Standards, codes of practice and contractual requirements as a minimum.

The Service Provider must identify who will be fulfilling the role of Senior Management Representative responsible for implementing and maintaining the safety requirements of this services brief (including monitoring the effectiveness of the Service Provider's safety management system in complying with all safety requirements) and reporting to the Principal.

The Safety Management Plan, must document how the safety management system will be communicated to all persons associated with the Service Provider's activities such that it is incorporated into the Service Provider's activities.

### D.7.3 Safety Management Plan

The Service Provider must produce a site specific safety management plan for each of the sites where work will be undertaken. The site specific safety management plan shall be prepared in accordance with the WHS Regulation and the WHS Guidelines.

The Service Provider shall ensure that the site specific safety management plan is prepared and approved prior to commencement of the works.

The site specific safety management plan must be approved by the Principal, Sydney Harbour Foreshore Authority, Sydney Trains and any other applicable regulatory authority (where applicable), prior to commencing site works. The final safety management plan shall be submitted to the Principal within the timeframes detailed in Section 2.5, Table 1.

### D.7.4 Safe Work Method Statements

Before work commences the Service Provider must provide Safe Work Method Statements (SWMS) for the proposed work a minimum of 2 weeks before work is due to commence.

The Service Provider must also ensure that work is carried out in accordance with the SWMS for the work. The Service Provider must ensure that a SWMS is reviewed and, as necessary, revised if relevant control measures are revised.

All SWMS, regardless of whether they are authored by the Service Provider or Subcontractors, must, unless otherwise directed by the Principal, be submitted to the Principal at least seven days prior to the commencement of any significant construction activity. The Principal may review any submitted SWMS.

The Service Provider acknowledges and agrees that by exercising its right under this services brief, the Principal is not assuming any management or control of the Site or the Works and is only receiving the SWMS information to monitor the Service Provider's compliance with its obligations under this Contract and/or applicable Laws, including the WHS Legislation and/or the Rail Safety National Law.

### D.7.5 Personal Protective Clothing and Equipment



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The Service Provider must comply with TfNSW Personal Protective Equipment Standard (60-ST-113). In particular, High Visibility clothing must be orange (not green/yellow or pink), safety glasses and hardhats are mandatory for construction sites, lace up ankle high safety boots (or gum boots) are mandatory, and gloves must be provided and worn for persons performing physical construction tasks.

### D.7.6 Incident Management

The Service Provider must:

- provide monthly safety statistics and reporting by the 5th of every month from the 26th of the previous month using TfNSW Monthly Safety Statistics and Incident Summary (90-FT-096), as required by the Principal's Representative;
- report to the Principal and manage incidents in accordance with Sydney Metro Northwest PSMP and TfNSW Incident Reporting, Reporting and Investigation Standard (90-ST-001);
- undertake an investigation, led by a competent person in accordance with an agreed methodology, for incidents, injuries or illnesses, when directed by the Principal. The investigation must determine the root causes, system failures, human errors and contributory factors that led to the incident, and identify appropriate corrective actions in accordance with the hierarchy of controls, aimed at preventing a recurrence.

### D.7.7 Prohibition and Improvement Notices and On-the-Spot Fines

The Service Provider must:

- immediately notify the Principal's Representative of any intended or actual visit to the site by either WorkCover NSW or ONRSR, and
- provide the Principal with a copy of any correspondence, Prohibition or Improvement Notice or on-the-spot fine issued by WorkCover NSW or ONRSR; and
- provide the Principal's Representative with a written details of the corrective action taken by the Service Provider to rectify the circumstances that led to the involvement of the regulatory authority and to prevent recurrence of those circumstances.

## D8 Rail Safety

The Service Provider must ensure that where the Service Provider's activities involve work in or adjacent to the Rail Corridor or the rail environment, the Safety Management Plan includes provision for compliance with Sydney Metro Northwest's PSMP, based upon (without limitation) compliance with the Sydney Trains Network Rules and Procedures.

### D.8.1 Project Work Notification

The Service Provider must complete and submit the relevant Sydney Trains Project Work Notification (PWN) or other applicable document to the Principal at least six (6) weeks prior to the planned works, including any works in a Track Possession. The Service Provider must comply with the requirements of any Safety Interface Service Brief.

The Service Provider must conduct a pre-work briefing with all personnel involved, including the Protection Officer, prior to commencing the work.

### D.8.2 Competencies

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The Service Provider Safety Management Plan identifies positions within its management team that are a Rail Safety Worker. The Principal may require alteration of the designation of Rail Safety Workers as nominated by the Service Provider.

Any person supervising or setting up safe work arrangements for the Service Provider's Activities on or in the vicinity of the Rail Corridor must hold the qualifications required by Sydney Trains and the Principal.

The Service Provider must ensure that no person undertakes Rail Safety Work unless they have been issued with a certificate of competency under the Rail Safety National Law.

The Service Provider must consult with the Principal to obtain a determination as to when the Rail Industry Safety Induction (RISI) or Rail Industry Worker (RIW) Identification Card is required for the Service Provider's Activities. The Service Provider must ensure that any visitors required to enter the Rail Corridor hold a RISI/RIW card, or are granted an exemption by the Principal and/or Sydney Trains.

### D.8.3 Fatigue Management, Medical and Health Management

For workers carrying out Rail Safety Work the Service Provider must apply the following fatigue, medical and health minimisation controls:

- implement a fatigue management program that:
  - addresses the requirements of the Rail Safety National Law and this Services Brief;
  - restricts workers to no more than 12 hours worked at a time not including travel time to and from work, unless there is a declared Incident in which case work can be performed up to a maximum of 16 hours at a time, as long as workers are not required to drive a motor vehicle or operate heavy plant or equipment after the 12th hour;
  - restricts workers that have worked more than 12 hours from driving after finishing work;
  - includes periods of 11 hours rest away from work;
  - restricts the maximum number of work days to 12 work days in 14 consecutive days;
  - minimises to five consecutive occasions where eight (8) hours are worked at night (i.e. after normal office hours) or four (4) consecutive occasions where 10 hours are worked at night or three (3) consecutive occasions where 12 hours are worked at night without a 48 hour rest break;
  - ensures employees receive a minimum of 48 consecutive hours free of work in a 14-day period; and
  - has the capacity to replace or relieve workers where unplanned or unavoidable extended hours have created a risk to employee health and safety;
- inform such persons that they are subject to medicals and health assessments in accordance with the "National Standard for Health Assessments of Rail Safety Workers";
- ensure that the "National Standard for Health Assessments of Rail Safety Workers" are undertaken and documented including re-examinations. The documented records must be maintained according to the State Records Act 1998 (NSW); and
- inform such persons that additional medical and health assessments may be required to be undertaken where they are involved in a safety accident or where there is reasonable

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cause for concern that person may be unable to perform work safely (such as upon return from a long illness).

### D.8.4 Alcohol and Other Drugs

In addition to the requirements set out in clause 6, if the Service Provider's Activities involves work in or adjacent to the Rail Corridor and the rail environment, the alcohol and other drugs procedures must be in line with the Rail Safety National Law, and the testing regime must include prestart testing prior to Track Possessions.

### D.8.5 Arrangements for Track Possessions

For each Track Possession to be utilised by the Service Provider, the Service Provider must conform with the requirements of the relevant Rail Transport Operator.

The Service Provider may not have exclusive access to any Rail Tracks or areas within the vicinity of Rail Tracks during a Track Possession. The Service Provider must coordinate the Service Provider's activities with those sharing the Track Possession, including parties involved in the operation or maintenance of the rail system and Other Contractors.

### D.8.6 Worksite Protection Personnel

Worksite Protection is required for carrying out the Service Provider's Activities within the Rail Corridor in accordance with the Australian Network Rules and Procedures and/or the requirements of the Rail Transport Operator.

The Worksite Protection Personnel are required to hold a minimum of Worksite Protection Personnel level 2 accreditation.

The Worksite Protection Personnel must brief all personnel undertaking the Service Provider's Activities on the Worksite Protection arrangements at the Site at the start of each shift or as is required by the Service Provider's Activities (and agreed by the Principal).

#### Swing Arm Plant – Rail Environment

The Service Provider must ensure the use of restrictors for swing arm plant.

The Service Provider's construction planning process must include the validation of the proposed method of work to be carried out on the day. This validation process must include the completion of a site specific risk assessment and development of a plant working diagram by the Service Provider in conjunction with the Protection Officer and any other required project personnel.

The Service Provider's pre-work briefing must include the following items:

- description of swing arm plant and equipment being used, including the type of restrictor(s) being used;
- details of the "line in the sand" for the positioning of the chassis of the swing arm plant or equipment being used (including consideration of the size and reach of the swing arm plant or equipment);
- arrangements for the provision of a spotter;
- reference to the details included in the Worksite Protection Plan prepared by the Protection Officer that includes swing arm plant considerations; and
- in the case of operations involving the use of a crane, details of the lifting plan developed for the Service Provider's activities.

## D9 Urgent Protection

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If urgent action is necessary to prevent, avoid or minimise loss or damage to any property or harm to the environment or personal injury to any person arising in connection with the Services to be carried out and the Service Provider fails to take the action, the Principal may take the necessary action. If the action was action which the Service Provider should have taken at the Service Provider's cost, the cost incurred by the Principal shall be a debt due from the Service Provider.

## D10 Communications and Community Liaison

### D.10.1 General Community Liaison Obligations

The Principal is responsible for providing information on works activities to the Principal.

The Service Provider must:

- ensure timeframes and resources to meet the Principal's community notification and consultation requirements are incorporated into project planning and programs;
- ensure its employees and subcontractors comply with the communications procedures outlined below;
- proactively provide the Principal with accurate and adequate information on the status of works and any associated impacts; and
- make available appropriate senior personnel to respond to enquiries/complaints made by the community or other stakeholders, as required.

### D.10.2 Community Information

The Service Provider must proactively notify the Principal of activities with the potential to impact on any member of the community. The Service Provider must provide this advice sufficiently in advance of the activity commencing so as to enable the Principal to provide the community with a minimum of 7 days prior notice of the activity. The Service Provider must submit to the Principal, the:

- details of the activity and potential impacts;
- proposed mitigation measures and strategy for managing impacts; and
- a list or description of the target audience (e.g. impacted area).

In addition to notifying of any works with the potential to impact the community, the Service Provider is responsible for updating the Principal on a monthly basis on the status of current and upcoming works.

### D.10.3 Information to the Principal's Representative

The Service Provider must provide and explain accurate information to the Principal regarding current and upcoming works, including works of its subcontractors, and all associated impacts as required. This is to allow the Principal to be kept abreast of construction activities and/or community impacts, and to allow timely responses to community and media enquiries and/or complaints.

The Service Provider is required to provide a 24 hour contact and be contactable at all times when undertaking work at the Site.

### D.10.4 Complaints and Enquiries Management

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The Service Provider is responsible for providing information to the Principal to enable TfNSW to respond to complaints and enquiries received regarding the Services.

Information must be provided to the Principal within 2 hours of receiving notice that a complaint/enquiry has been registered by the community. Information should include the confirmation of any rectification actions to be undertaken (where appropriate).

Complaints and enquiries may be received through a variety of avenues including the Principal's 24-hour construction response line, telephone, via email; in writing, or direct to the Principal via telephone, in writing or direct to the Service Provider or its subcontractors.

### D.10.5 News Media

The Service Provider must:

- immediately make any enquiry/contact by the news media known to the Principal;
- not make any statement (verbal or written) or provide any photographs or illustrations or other data to the news media regarding the Services without the prior written approval of the Principal;
- not permit any news media on the Site without the prior written approval of the Principal;
- provide the Principal with relevant information in a timely manner, as required to respond to news media enquiries; and
- ensure all its subcontractors are aware of and comply with these requirements.

### D.10.6 Incident Reporting

The Service Provider must immediately notify the Principal of any incident associated with the Services that may have an impact on the community, environment, employees of the Service Provider or its subcontractors, or other stakeholders that may attract the attention of the news media, the Minister of Transport, a local MP, council or the broader community.

In the event of an incident, the Service Provider and/or its subcontractors must not contact or provide information to any person (other than that which is required to directly manage the incident), including any stakeholder, the news media or the public, without the prior approval of the Principal's Representative. The Service Provider must make available senior personnel to respond to the community, the news media and other stakeholders when required by the Principal.

As required, the Service Provider must provide the Principal with all necessary information that may need to be disseminated as a result of such incidents.

The details of response times for incident reporting by the Service Provider are:

- immediate verbal notification to the Principal:
  - within 10 minutes of the incident occurring, in the case of an incident that has attracted or has the potential to imminently attract the attention of the news media, the Minister for Transport, a local MP, council, or the broader community. Examples of such incidents include without limitation:
    - i. any delays to train timetables or significant delays to vehicle/pedestrian movements caused by the incident;
    - ii. incidents where employees of the Service Provider or its subcontractor, or a member of the community is harmed; and
    - iii. access to trains/vehicles is blocked and preventing (or severely restricting) access to commuters/drivers,

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- otherwise, within 1 hour of the incident occurring;
- a report detailing the incident to be issued to the Principal within 24 hours of the incident occurring, using:
  - TfNSW Safety and Environmental Incident Report (90-FT-002), for incident or issue in respect of WHS; or
  - Sydney Metro Northwest Environmental Incident/Non-compliance Report, for environmental incident;
  - the Service Provider's incident report form, in respect of all other incidents or issues; and
- a corrective action report to prevent reoccurrence of the incident, prepared by the Service Provider, and submitted to the Principal within 5 Business Days of the incident occurring.

### D.10.7 Communications Requirements as Part of Site Inductions

The Service Provider must ensure its employees and the employees of its subcontractors are adequately inducted and trained on the communications requirements of the Service Brief, with particular focus on incident reporting procedures, community enquiries or complaints, and news media enquiries prior to commencing the Services.

The Service Provider must periodically carry out further inductions of persons previously inducted to ensure the communications procedures remain clear.

The proposed induction must be submitted to the Principal's Representative for approval prior to use.

### D.10.8 Accessing Private Property

The Service Provider must not access private property without notifying the Principal and if approved to do so, must adhere to the Principal's procedure for accessing private property and the direction of the Principal.

### D.10.9 Contact with the Community

The Service Provider and its subcontractors must at all times comply with the following protocols when working onsite or when in contact with the community:

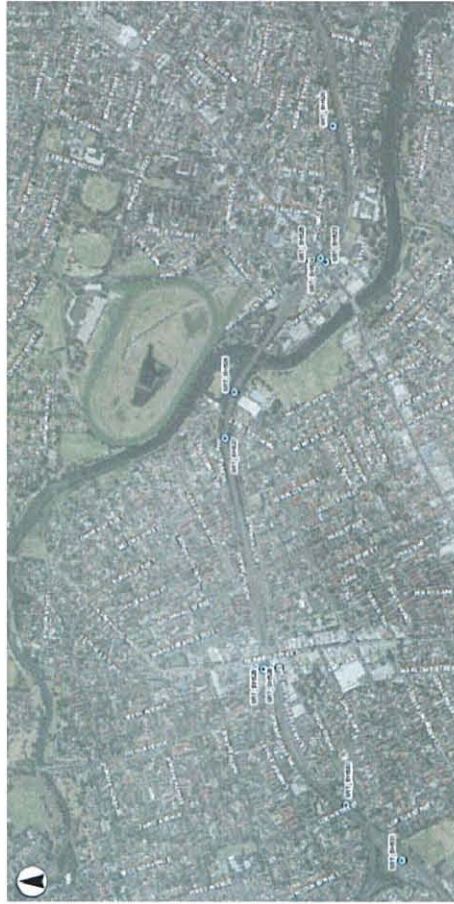
- ensure the Site and surrounding area is safe at all times, especially when leaving for the day;
- be polite and courteous;
- obey local traffic regulations e.g. do not park in or across driveways;
- ensure all workers adhere to agreed hours of work (do not start work early or finish late); and
- always carry Project Infoline contact cards, as supplied by the Principal, and refer any enquiry about the project or associated works directly to the Principal via the Project Infoline.

## Appendix E **Approximate Area for the Geotechnical Survey**









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## Appendix F Borehole Locations































## PART B - ADMINISTRATIVE

**Schedule B1. Contractor's Certificate of Design Compliance**

(Clauses 5.3(b) and 11.6(a)(iii)(B))

<b>CONTRACTOR'S CERTIFICATE OF DESIGN COMPLIANCE</b>	
<b>CONTRACTOR:</b>	
<u>DESIGN PACKAGE</u>	DESCRIPTION
<i>(Attach schedule of work packages if insufficient space)</i>	
<p>I certify that the design for the packages or part thereof described above has been completed to the extent indicated above in accordance with the requirements of the Contract between the Principal and the Contractor, Laing O'Rourke Australia Construction Pty Ltd (ABN 39 112 099 000), and complies with the requirements of the Contract, subject to the register of outstanding minor design non-conformances and unresolved issues attached.</p> <p>I further certify that the attached compliance records as required by the Contract reflect the true status of the design packages.</p>	
SIGNATURE: _____ <i>(Contractor's Representative)</i>	SIGNATURE: _____ <i>(Contractor's Subcontractor/Designer)</i>
DATE: _____	DATE: _____

**Schedule B2. Certificate of Construction Compliance**

(Clauses 7.1(c) and 11.6(a)(iii)(B))

<b>CONTRACTOR'S CERTIFICATE OF CONSTRUCTION COMPLIANCE</b>	
<b>CONTRACTOR:</b>	
<u>CONTRACTOR'S ACTIVITIES</u>	<u>DESCRIPTION</u>
<i>(Attach schedule of work packages if insufficient space)</i>	
<p>I certify that the procurement/construction of the Contractor's Activities or part thereof described above have been completed to the extent indicated above in accordance with the requirements of the Contract between the Principal and the Contractor, Laing O'Rourke Australia Construction Pty Ltd (ABN 39 112 099 000), and comply with the requirements of the Contract, subject to the register of outstanding minor construction non-conformance and unresolved issues attached.</p> <p>I further certify that the attached compliance records as required by the Contract reflect the true status of the work packages.</p>	
<p>NAME: _____ SIGNATURE: _____ DATE: / /</p> <p><i>(Contractor's Representative)</i></p>	

THIS SECTION MUST BE COMPLETED BY THE RELEVANT CONTRACTOR'S SUBCONTRACTOR/DESIGNER

I certify that the procurement/construction of the work packages (one certificate per work package) or part thereof described above have been completed to the extent indicated above in accordance with the requirements of the Contract between the Principal and the Contractor, Laing O'Rourke Australia Construction Pty Ltd (ABN 39 112 099 000), and comply with the requirements of the Contract, subject to the register of outstanding minor construction non-conformances and unresolved issues attached.

I further certify that the attached compliance records as required by the Contract reflect the true status of the work packages.

SIGNATURE: \_\_\_\_\_  
(Contractor's Subcontractor/Designer)

DATE: \_\_\_\_\_

**Schedule B3. Contractor's Certificate of Completion**

(Clause 1.1 and Clause 12.3(c))

<b>CONTRACTOR'S CERTIFICATE OF COMPLETION</b>	
<b>CONTRACTOR:</b>	
Description of Works: _____	
_____	
_____	
<p>I certify that the Completion of the above Works has been achieved in accordance with the requirements of the Contract between the Principal and the Contractor, Laing O'Rourke Australia Construction Pty Ltd (ABN 39 112 099 000), complies with the requirements of the Contract, subject to the register of unresolved issues attached.</p> <p>I further certify that:</p> <ul style="list-style-type: none"> <li>(a) All Change Orders (including concessions) are listed in the attached compliance register.</li> <li>(b) All identified Defects (including any non-conformities but excluding Defects accepted as minor by the Principal) have been satisfactorily rectified and their documentation closed out.</li> <li>(c) All required documentation has been submitted.</li> <li>(d) All notices regarding system deficiencies have been satisfactorily closed out.</li> </ul> <p>I further certify that the attached compliance records as required by the Contract reflect the true status of the Works.</p>	
SIGNATURE: _____	SIGNATURE: _____
<i>(Contractor's Representative)</i>	<i>(Contractor's Subcontractor/Designer)</i>
DATE: _____	DATE: _____

## Schedule B4. Contractor's Certificate of Final Completion

(Clause 12.8(d))

### CONTRACTOR'S CERTIFICATE OF FINAL COMPLETION

#### CONTRACTOR:

I hereby certify that Final Completion has been achieved by the Contractor, Laing O'Rourke Australia Construction Pty Ltd (ABN 39 112 099 000), in accordance with the requirements of the Deed (including all Change Orders detailed in (a) below) between the Principal and the Contractor.

I further certify that:

- (a) All Change Orders (including concessions) are listed in the attached compliance register.
- (b) All identified Defects (including any non-conformities) have been satisfactorily rectified and their documentation closed out.
- (c) All required documentation has been submitted.
- (d) All notices regarding system deficiencies have been satisfactorily closed out.

I further certify that the attached compliance records as required by the Deed reflect the true status of the Works.

SIGNATURE: \_\_\_\_\_  
(Contractor's Representative)

DATE: / /

**Schedule B5. Statutory Declaration**

(Clause 11.6(a)(iii)(A))

<b>Statutory Declaration</b>	<i>Oaths Act (NSW) Ninth Schedule</i>								
<p>I, .....</p> <p>of .....</p> <p>do solemnly and sincerely declare that:</p> <p>1. I am the representative of the Contractor, Laing O'Rourke Australia Construction Pty Ltd (ABN 39 112 099 000). ("<b>the Contractor</b>")</p> <p style="padding-left: 20px;">in the Office Bearer capacity of:</p> <p>.....</p> <p>2. The Contractor has a contract with the [ ..... ]:</p> <p>.....</p> <p>("the Contract")</p> <p>3. I personally know the facts which I have set out in this declaration.</p> <p>4. All employees who have at any time been engaged by the Contractor for work done under the Contract:</p> <p>a) have been paid all remuneration and benefits to the date of this declaration payable to them by the Contractor in respect of their employment on work under the Contract, and</p> <p>b) have otherwise had accrued to their account all benefits to which they are entitled from the Contractor as at the date of this declaration in respect of their employment on work under the Contract pursuant to any award, enterprise agreement, act or regulation,</p> <p style="padding-left: 20px;">with the exception of the employees and respective amounts unpaid or not accrued for each employee listed below:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%; text-align: left;">Employee:</th> <th style="width: 40%; text-align: left;">Amount unpaid or not accrued:</th> </tr> </thead> <tbody> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td></tr> </tbody> </table> <p>5. Attached to and forming part of this declaration, as Annexure A, is a supporting statement for the purposes of section 13(7) of the Building and Construction Industry Security of Payment Act 1999 (NSW).</p> <p>5A. Where the Contractor holds any retention money from a Subcontractor, the Contractor has complied with all requirements under the Building and Construction Industry Security of Payment Amendment (Retention Money Trust Account) Regulation 2015 (NSW), with the exception of the items listed below:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>6. In all cases where a subcontractor or supplier to the Contractor has provided services and/or materials in respect of the Contract and has submitted a claim to the Contractor for these services or materials which as at the date of this statutory declaration would have been due and payable but which the Contractor disputes, the reasons for such dispute have been notified in writing to the subcontractor or supplier by the Contractor prior to the date of this statutory declaration. Where such dispute relates to part only of the subcontractor or supplier's claim, that part of the claim not in dispute has been paid by the Contractor to the subcontractor or supplier as at the date of this statutory declaration except for the amounts listed in 5 above.</p> <p>7. The provisions of the Contract relating to the payment of employees, subcontractors and suppliers of the Contractor have been complied with by the Contractor.</p> <p>8. The Contractor has been informed by each subcontractor to the Contractor (except for subcontracts not exceeding \$25,000 at their commencement) by statutory declaration in equivalent terms to this declaration (made no earlier than the date 14 days before the date of this declaration):</p> <p>(a) that their subcontracts with their subcontractors and suppliers comply with the requirements of</p>	Employee:	Amount unpaid or not accrued:	.....	.....	.....	.....	.....	.....	
Employee:	Amount unpaid or not accrued:								
.....	.....								
.....	.....								
.....	.....								





the Contract relating to payment of employees and subcontractors, and

- (b) that all their employees and subcontractors, as at the date of the making of such a declaration:
  - i) have been paid all remuneration and benefits due and payable to them by; or
  - ii) had accrued to their account all benefits to which they are entitled from;

the subcontractor of the Contractor or from any other subcontractor (except for subcontracts not exceeding \$25,000 at their commencement) in respect of any work under the Contract, and

- (c) of details of any amounts due and payable or benefits due to be received or accrued described in 8(b) above which have not been paid, received or accrued,

except for the following subcontractors to the Contractor who have failed to provide such a declaration:

Subcontractor:	Due amount unpaid:
.....	.....
.....	.....
.....	.....

insert names and addresses of the Contractor's subcontractors who have not submitted a declaration, and unpaid amounts due or otherwise due to each of them by the Contractor in respect of this claim

9. Where a subcontractor to the Contractor has provided a declaration as in 8 above, and it includes unpaid amounts or benefits either not received or not accrued, details of the subcontractor, details of the affected employees, suppliers and subcontractors of the subcontractor, and the respective amounts or benefits either unpaid or not accrued are as follows:

Employee, subcontractor or supplier:	Amount unpaid or not accrued:
.....	.....
.....	.....
.....	.....

insert names of the subcontractors, the name and addresses of the unpaid employees, subcontractors and suppliers and amounts listed as unpaid or not accrued to them.

10. In relation to the statutory declaration provided by each subcontractor to the Contractor, I am not aware of anything to the contrary of what is contained therein, and on the basis of the contents of those statutory declarations, I believe that information to be true.

11. Attached to and forming part of this declaration, as Annexure B, is a "Subcontractor's Statement" given by the Contractor in its capacity as 'subcontractor' (as that term is defined in the Workers Compensation Act 1987, Pay-Roll Tax Act 1971 and Industrial Relations Act 1996) which is a written statement:

- (a) under section 175B of the Workers Compensation Act 1987 in the form and providing the detail required by that legislation;
- (b) under section 18(6) of schedule 2 of part 5 of the Pay-Roll Tax Act 2007 in the form and providing the detail required by that legislation; and
- (c) under section 127 of the Industrial Relations Act 1996 in the form and providing the detail required by that legislation.

12. I personally know the truth of the matters which are contained in this declaration and the attached Subcontractor's Statement.

13. All statutory declarations and Subcontractor's Statements received by the Contractor from subcontractors were:

- (a) given to the Contractor in its capacity as 'principal contractor' as defined in the Workers Compensation Act 1987, the Pay-Roll Tax Act 2007 and the Industrial Relations Act 1996 ("Acts"); and
- (b) given by the subcontractors in their capacity as 'subcontractors' as defined in the Acts.

14. I am not aware of anything which would contradict the statements made in the statutory declarations or written statements provided to the Contractor by its subcontractors, as referred to in this declaration.



I make this solemn declaration conscientiously believing the same to be true and by virtue of the Oaths Act 1900 (NSW). I am aware that I may be subject to punishment by law if I wilfully make a false statement in this declaration.

Declared at ..... on ..... (place) (day) (month) (year)

(Signature of Declarant)

Before me:

(Signature of person before whom the declaration is made)

(Name of the person before whom the declaration is made)

(Title\* of the person before whom the declaration is made)

And as a witness, I certify the following matters concerning the person who made this declaration (declarant):

[\*strike out the text that does not apply]

1. \*I saw the face of the declarant.

OR

\*I did not see the face of the declarant because the declarant was wearing a face covering, but I am satisfied that the declarant had a special justification for not removing the covering.

2. \*I have known the declarant for at least 12 months.

OR

\*I confirmed the declarant's identity using the following identification document:

Identification document relied on (may be original or certified copy)

Signature of person before whom the declaration is made

Before me:

(Signature of person before whom the declaration is made)

(Name of the person before whom the declaration is made)

(Title\* of the person before whom the declaration is made)

\* The declaration must be made before one of the following persons:

- where the declaration is sworn within the State of New South Wales:

- (i) a justice of the peace of the State of New South Wales;
(ii) a solicitor of the Supreme Court of New South Wales with a current practising certificate; or
(iii) a notary public.

- where the declaration is sworn in a place outside the State of New South Wales:

- (i) a notary public; or
(ii) any person having authority to administer an oath in that place.

Annexure A

Supporting statement by head contractor regarding payment to subcontractors

This statement must accompany any payment claim served on a principal to a construction contract by a head contractor.

For the purposes of this statement, the terms "principal", "head contractor", "subcontractor", and "construction contract" have the meanings given in section 4 of the Building and Construction Industry Security of Payment Act 1999.

Head contractor: Laing O'Rourke Australia Construction Pty Ltd
ABN: 39 112 099 000

\* 1. has entered into a contract with: [business name of subcontractor]

ABN: [ABN]

Contract number/identifier: [contract number/identifier]

OR

\* 2. has entered into a contract with the subcontractors listed in the attachment to this statement.

\* [Delete whichever of the above does not apply]

This statement applies for work between [start date] and [end date] inclusive (the construction work concerned), subject of the payment claim dated [date].

I, [full name], being the head contractor, a director of the head contractor or a person authorised by the head contractor on whose behalf this declaration is made, hereby declare that I am in a position to know the truth of the matters that are contained in this supporting statement and declare that, to the best of my knowledge and belief, all amounts due and payable to subcontractors have been paid (not including any amount identified in the attachment as an amount in dispute).

Signature: ..... Date: .....

Full name: ..... Position/Title: .....

**Attachment**

<b>Schedule of subcontractors paid all amounts due and payable</b>				
<b>Subcontractor</b>	<b>ABN</b>	<b>Contract number identifier</b>	<b>Date of works (period)</b>	<b>Date of payment claim (head contractor claim)</b>

<b>Schedule of subcontractors for which an amount is in dispute and has not been paid</b>				
<b>Subcontractor</b>	<b>ABN</b>	<b>Contract number identifier</b>	<b>Date of works (period)</b>	<b>Date of payment claim (head contractor claim)</b>

Annexure B

**SUBCONTRACTOR'S STATEMENT**

**REGARDING WORKERS COMPENSATION, PAYROLL TAX AND REMUNERATION**

(Note 1 - see back of form)

For the purposes of this Statement a "subcontractor" is a person (or other legal entity) that has entered into a contract with a "principal contractor" to carry out work.

This Statement must be signed by a "subcontractor" (or by a person who is authorised, or held out as being authorised, to sign the statement by the subcontractor) referred to in any of s175B *Workers Compensation Act 1987*, Schedule 2 Part 5 *Payroll Tax Act 2007*, and s127 *Industrial Relations Act 1996* where the "subcontractor" has employed or engaged workers or subcontractors during the period of the contract to which the form applies under the relevant Act(s). The signed Statement is to be submitted to the relevant principal contractor.

**SUBCONTRACTOR'S STATEMENT (Refer to the back of this form for Notes, period of Statement retention, and Offences under various Acts.**

Subcontractor: ..... ABN: .....  
 (*Business name*)  
 of

.....  
 (*Address of subcontractor*)

has entered into a contract with Laing O'Rourke Australia Construction Pty Ltd (ABN: 39 112 099 000)  
 (*Business name of principal contractor*) (Note 2)

Contract number/identifier ..... (Note 3)

This Statement applies for work between: ...../...../..... and ...../...../..... inclusive, (Note 4)

subject of the payment claim dated: ...../...../..... (Note 5)

I, ..... a Director or a person authorised by the Subcontractor on whose behalf this declaration is made, hereby declare that I am in a position to know the truth of the matters which are contained in this Subcontractor's Statement and declare the following to the best of my knowledge and belief:

- (a) The abovementioned Subcontractor has either employed or engaged workers or subcontractors during the above period of this contract. Tick [ ] if true and comply with (b) to (g) below, as applicable. If it is not the case that workers or subcontractors are involved or you are an exempt employer for workers compensation purposes tick [ ] and only complete (f) and (g) below. You must tick one box. (Note 6)
- (b) All workers compensation insurance premiums payable by the Subcontractor in respect of the work done under the contract have been paid. The Certificate of Currency for that insurance is attached and is dated ...../...../.....(Note 7)
- (c) All remuneration payable to relevant employees for work under the contract for the above period has been paid. (Note 8)
- (d) Where the Subcontractor is required to be registered as an employer under the *Payroll Tax Act 2007*, the Subcontractor has paid all payroll tax due in respect of employees who performed work under the contract, as required at the date of this Subcontractor's Statement. (Note 9)
- (e) Where the Subcontractor is also a principal contractor in connection with the work, the Subcontractor has in its capacity of principal contractor been given a written Subcontractor's Statement by its subcontractor(s) in connection with that work for the period stated above. (Note 10)
- (f) Signature ..... Full name.....
- (g) Position/Title ..... Date ...../...../.....

NOTE: Where required above, this Statement must be accompanied by the relevant Certificate of Currency to comply with section 175B of the *Workers Compensation Act 1987*.

## Notes

1. This form is prepared for the purpose of section 175B of the *Workers Compensation Act 1987*, Schedule 2 part 5 *Payroll Tax Act 2007* and section 127 of the *Industrial Relation Act 1996*. If this form is completed in accordance with these provisions, a principal contractor is relieved of liability for workers compensation premiums, payroll tax and remuneration payable by the subcontractor.  
 A principal contractor can be generally defined to include any person who has entered into a contract for the carrying out of work by another person (or other legal entity called **the subcontractor**) and where employees of the subcontractor are engaged in carrying out the work which is in connection with the principal contractor's business.
2. For the purpose of this Subcontractor's Statement, a principal contractor is a person (or other legal entity), who has entered into a contract with another person (or other legal entity) referred to as the subcontractor, and employees/workers of that subcontractor will perform the work under contract. The work must be connected to the business undertaking of the principal contractor.
3. Provide the unique contract number, title, or other information that identifies the contract.
4. In order to meet the requirements of s127 *Industrial Relations Act 1996*, a statement in relation to remuneration must state the period to which the statement relates. For sequential Statements ensure that the dates provide continuous coverage.

Section 127(6) of the *Industrial Relations Act 1996* defines remuneration 'as remuneration or other amounts payable to relevant employees by legislation, or under an industrial instrument, in connection with work done by the employees.'

Section 127(11) of the *Industrial Relations Act 1996* states 'to avoid doubt, this section extends to a principal contractor who is the owner or occupier of a building for the carrying out of work in connection with the building so long as the building is owned or occupied by the principal contractor in connection with a business undertaking of the principal contractor.'

5. Provide the date of the most recent payment claim.
6. For Workers Compensation purposes an exempt employer is an employer who pays less than \$7500 annually, who does not employ an apprentice or trainee and is not a member of a group.
7. In completing the Subcontractor's Statement, a subcontractor declares that workers compensation insurance premiums payable up to and including the date(s) on the Statement have been paid, and all premiums owing during the term of the contract will be paid.
8. In completing the Subcontractor's Statement, a subcontractor declares that all remuneration payable to relevant employees for work under the contract has been paid.
9. In completing the Subcontractor's Statement, a subcontractor declares that all payroll tax payable relating to the work undertaken has been paid.
10. It is important to note that a business could be both a subcontractor and a principal contractor, if a business 'in turn' engages subcontractors to carry out the work. If your business engages a subcontractor you are to also obtain Subcontractor's Statements from your subcontractors.

### Statement Retention

The principal contractor receiving a Subcontractor's Statement must keep a copy of the Statement for the periods stated in the respective legislation. This is currently up to seven years.

### Offences in respect of a false Statement

In terms of s127(8) of the *Industrial Relations Act 1996*, a person who gives the principal contractor a written statement knowing it to be false is guilty of an offence if:

- (a) the person is the subcontractor;
- (b) the person is authorised by the subcontractor to give the statement on behalf of the subcontractor; or
- (c) the person holds out or represents that the person is authorised by the subcontractor to give the statement on behalf of the subcontractor.

In terms of s175B of the *Workers Compensation Act* and clause 18 of Schedule 2 of the *Payroll Tax Act 2007* a person who gives the principal contractor a written statement knowing it to be false is guilty of an offence.

### Further Information

For more information, visit the WorkCover website [www.workcover.nsw.gov.au](http://www.workcover.nsw.gov.au), Office of State Revenue website [www.osr.nsw.gov.au](http://www.osr.nsw.gov.au), or Office of Industrial Relations, Department of Commerce website [www.commerce.nsw.gov.au](http://www.commerce.nsw.gov.au). Copies of the *Workers Compensation Act 1987*, the *Payroll Tax Act 2007* and the *Industrial Relations Act 1996* can be found at [www.legislation.nsw.gov.au](http://www.legislation.nsw.gov.au).

**Schedule B6. Property Owner's Certificate**

(Clause 3.4(c)(ii))

**This deed poll** is made the \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

**To:** Transport for NSW (ABN 18 804 239 602) of 22 Giffnock Avenue Macquarie Park NSW 2113 ("Principal")

**By:** [ \_\_\_\_\_ ].

**Property Address:** .....

1. I/We confirm that the following works has been carried out and completed on my/our property to my/our satisfaction:

**[Insert description of works on property and property]**

- 2. I/We confirm that our land has been rehabilitated and all damage and degradation on it repaired.
- 3. I/We release the Principal from all claims and actions which I/we may have arising out of or in connection with the works referred to in paragraph 1.
- 4. This deed poll may not be revoked or otherwise modified without the prior written consent of the Principal.

**Executed** as a deed poll.

**Signed sealed and delivered**  
 by \_\_\_\_\_ in the presence  
 of: \_\_\_\_\_

\_\_\_\_\_  
 Signature

\_\_\_\_\_  
 Signature of Witness

\_\_\_\_\_  
 Name of Witness in full

## Schedule B7. Form of Confidentiality Undertaking

(Clauses 2.2(e)(iii) and 17.11(c))

To: [ ]

We the engaged Consultant/Supplier/Contractor/Subcontractor body, undertake to treat as confidential all information received/generated from Transport for NSW (ABN 18 804 239 602) (**Principal**) in respect of work performed by the Principal.

The Consultant/Supplier/Contractor/Subcontractor hereby undertakes:

- (a) To disclose information to its employees only on a need-to-know basis;
- (b) Not to disclose information to any other person without first obtaining the written consent of the Principal;
- (c) To ensure that its employees to whom information is disclosed will comply with (a) and (b) above.

This undertaking will not apply to information about the Principal which is in the public domain (except where the availability of the information in the public domain is due to any unauthorised disclosure by the Consultant/Supplier/Contractor/Subcontractor, its employees or agents) or which was already known to the Consultant/Supplier/Contractor/Subcontractor.

Any breach of this undertaking by the Consultant/Supplier/Contractor/Subcontractor's employee or agent will constitute a breach of this undertaking by the Consultant/Supplier/Contractor/Subcontractor and at the direction of the Principal the Consultant/Supplier/Contractor/Subcontractor must institute proceedings or do whatever the Principal regards as reasonable to prevent or contain the breach.

The Consultant/Supplier/Contractor/Subcontractor undertakes that on request from the Principal it will forthwith return to the Principal all originals and copies of the confidential information, however embodied, supplied by the Principal and destroy all documents containing or prepared using any confidential information however embodied.

The Consultant/Supplier/Contractor/Subcontractor also undertakes to declare to the Principal any conflict of interests that exists or arises during the course of its engagement which may impinge on the objectivity or probity of the work performed. Such declarations are to be made as soon as the conflict of interests issues arises.



This undertaking will remain in force until each part of the confidential information is released by the Principal into the public domain.

Dated: .....

**SIGNED** for and on behalf of:

.....  
(Print Company Name)

By: .....  
(Print Name) (Signature)

in the presence of:

.....  
(Print Name) (Signature)

## Schedule B8. Expert Determination Agreement

(Clauses 15.8(b) and 15.9)

### Expert Determination Agreement made at \_\_\_\_\_ on \_\_\_\_\_

Parties: Transport for NSW (ABN 18 804 239 602) (Principal)

Laing O'Rourke Australia Construction Pty Ltd (ABN 39 112 099 000) (Contractor)

*[Insert name and address of Expert agreed between the Parties or appointed pursuant to clause 15.9 of the Contract]* (Expert)

### Background

- A. The Principal and the Contractor (together "**the Parties**" and each "**a Party**") are parties to a contract (**Contract**) for *[to be inserted]*.
- B. By written notice dated *[to be inserted]*, the *[insert the Principal or Contractor as applicable]* has required that the matter described in Schedule 1, being a matter that the Contract requires or permits to be referred to an Expert for determination, be determined by an Expert appointed under clause 15.7 of the Contract (**Matter**).
- C. Pursuant to clause 15.7 of the Contract, the Expert has been appointed to determine the Matter in accordance with the process set out in this Agreement.

### Operative part

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## 1. Appointment of Expert

- (a) The Parties appoint the Expert to determine the Matter in the manner and within the times set out in this Agreement and the Expert accepts the appointment on the basis set out in this Agreement.
- (b) The Parties agree that:
  - (i) the Expert will act as an expert and not as an arbitrator;
  - (ii) neither the determination of the Matter, nor the process required by this Agreement is an arbitration and any conference conducted during the determination is not a hearing conducted under any legislation or rules relating to any form of arbitration;
  - (iii) the rules of evidence and natural justice do not apply to the determination; and
  - (iv) the Expert must conduct the determination of the Matter in accordance with the Rules for Expert Determination Process set out in Schedule 2;
- (c) If, at any time during the determination, the Expert becomes aware of circumstances that might reasonably be considered to adversely affect the Expert's capacity to act independently or impartially, the Expert must inform the Parties immediately and, unless the Parties agree otherwise, terminate this Agreement.

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## 2. Confidentiality

All proceedings and submissions relating to the determination (including the fact that any step in the determination is occurring), and all documents prepared for the purposes of the determination (including the Expert's determination), must be kept confidential between the Parties and the Expert. No such proceedings, submissions or documents, nor any other information relating to or arising out of the determination, may be divulged to any other person, except with the prior written consent of both Parties or as may be required by law or to the extent necessary to give effect to or enforce the Expert's determination.

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## 3. Costs and Fees

- (a) As between the Parties and the Expert, the Parties are jointly and severally liable for the payment of the Expert's fees and disbursements, calculated in accordance with the Schedule of Fees and Disbursements set out in Schedule 3. The Parties agree to comply with any direction from the Expert as to the provision of security deposits in respect of his or her fees and disbursements.
- (b) The Parties agree as between themselves that:
  - (i) they will each pay one half of the Expert's fees and disbursements, calculated in accordance with the Schedule of Fees and Disbursements set out in Schedule 3; and
  - (ii) they will each bear their own costs of and incidental to the preparation of this Agreement and their participation in the determination.

---

## 4. GST

- (a) Unless stated otherwise, all consideration and amounts payable under this Agreement are exclusive of GST.
- (b) Subject to clause 4(c), if GST is payable in respect of any supply made by a supplier under this Agreement, the recipient will pay to the supplier an amount equal to the GST payable on the supply at the same time that the consideration for the supply is to be provided.
- (c) The supplier must provide a tax invoice to the recipient before the supplier is entitled to payment of the GST amount under clause 4(b).
- (d) If an adjustment event occurs in relation to a taxable supply made under this Agreement:
  - (i) the supplier must provide an adjustment note to the recipient within 7 days of becoming aware of the adjustment; and
  - (ii) any payment necessary to give effect to the adjustment must be made by the applicable party within 7 days after the date of receipt of the adjustment note.
- (e) Costs actually or estimated to be incurred or revenue actually or estimated to be earned or lost by a party that is required to be reimbursed or indemnified by another party or used as the basis for calculation of consideration for a supply under this Agreement must exclude the amount of GST referable to the cost to the extent to which an entitlement arises or would arise to claim an input tax credit and in relation to revenue must exclude any amount in respect of GST referable to the revenue.

---

## 5. Exclusion of Liability and Indemnity

Except in the case of fraud, the Expert will not be liable to either Party for any act or omission by the Expert in the performance or purported performance of this Agreement. The Parties jointly and severally indemnify the Expert against all claims arising out of or in any way referable to any act or omission by the Expert (except fraud) in the performance or purported performance by the Expert of the terms of this Agreement.

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## 6. Co-operation of the Parties

Each Party agrees to take part in the determination in good faith and to comply with the reasonable requests and directions of the Expert in relation to the conduct of the determination.

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## 7. Governing Law

This Agreement is governed by and is to be construed in accordance with the laws in force in the State of New South Wales.

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## 8. Jurisdiction

- (a) The Parties and the Expert irrevocably submit to the non-exclusive jurisdiction of the courts of the State of New South Wales and the New South Wales courts to which the appeals from those courts may be made.
- (b) The Parties and the Expert irrevocably waive any objection they may now or in the future have to the venue of any proceedings, and any claim they may now or in the future have that any proceeding has been brought in an inconvenient forum, where that venue falls within clause 8(a).

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### Schedule 1 Matter

*[Note: to be inserted]*

### Schedule 2 Rules for Expert Determination Process

*[Note: to be inserted]*

### Schedule 3 Fees and Disbursements

*[Note: to be inserted]*

**Executed as an agreement.**

**Executed by Transport for NSW (ABN 18  
804 239 602) in the presence of:**

\_\_\_\_\_  
Signature of Witness

\_\_\_\_\_  
Signature of Authorised Delegate

\_\_\_\_\_  
Name of Witness in full

\_\_\_\_\_  
Name of Authorised Delegate in full

\_\_\_\_\_  
Position held

\_\_\_\_\_  
Position held

**Executed by Laing O'Rourke Australia  
Construction Pty Ltd (ABN 39 112 099 000)**  
in accordance with section 127 of the  
*Corporations Act 2001* (Cth):

\_\_\_\_\_  
Signature of Director

\_\_\_\_\_  
Signature of Secretary/other Director

\_\_\_\_\_  
Name of Director in full

\_\_\_\_\_  
Name of Secretary/other Director in full



Executed by [Expert and ABN] in  
accordance with section 127 of the  
*Corporations Act 2001* (Cth):

\_\_\_\_\_  
Signature of Director

\_\_\_\_\_  
Signature of Secretary/other Director

\_\_\_\_\_  
Name of Director in full

\_\_\_\_\_  
Name of Secretary/other Director in full

## PART C – SCOPE OF WORK AND TECHNICAL CRITERIA