Standing Offer Deed ISD-18-7725 for More Trains More Services (MTMS) Technical Advisor

Between

Transport for NSW
[Principal]
ABN 18 804 239 602

and

Mott MacDonald Australia Pty Limited (ABN 13 134 120 353)
and
SMEC Australia Pty Limited (ABN 47 065 475 149),
trading as
Mott MacDonald Australia Pty Limited & SMEC Australia Pty Limited
[Professional Services Contractor]
ABN 50 780 189 689

Transport for NSW
Level 5 Tower A Zenith Centre
821 Pacific Highway
Chatswood NSW 2067

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ATTACHMENT 1 – SERVICES BRIEF

Standing Offer Deed made between

Parties

Transport for NSW (ABN 18 804 239 602) having its registered office at Level 5, Tower A, Zenith Centre (**"Principal"**) and

Mott MacDonald Australia Pty Limited (ABN 13 134 120 353) and SMEC Australia Pty Limited (ABN 47 065 475 149), trading as Mott MacDonald Australia Pty Limited & SMEC Australia Pty Limited (ABN 50780189689) having its registered office at 22 King William Street, Adelaide SA 5000 **("Professional Services Contractor")**

Recitals

A. The Principal wishes to engage a professional services contractor that it can call upon to undertake technical advisory services in respect of the More Trains More Services (MTMS) program.

B. The Professional Services Contractor has submitted its schedule of rates and identified the appropriate PSC Personnel to carry out the technical advisory services at time of tender which the Principal has accepted.

C. When the Principal issues a Services Order Acceptance to the Professional Services Contractor in respect of a Proposal provided to the Principal by the Professional Services Contractor, then, the Principal and the Professional Services Contractor shall be deemed to have entered into a PSC Contract in respect of the Services, in accordance with the terms of this Deed.

This deed provides

1. Definitions and interpretation

In this Deed:

"Additional Personnel" has the meaning given to that expression in clause 7.11.

"Business Day" means any day other than a Saturday, Sunday, public holiday in New South Wales or 27, 28, 29, 30 or 31 December.

"Deed" means this Standing Offer Deed.

"Independent Expert" means a suitably skilled and experienced independent expert appointed by the Principal to (whether in conjunction with other functions or otherwise) review and provide an opinion on any "Upper Limiting Fee" proposed by the Professional Services Contractor under clause 3.1(c), including whether it represents a reasonable estimate of the likely "Provisional Portion Fee" (as defined in the Standard Contract) for the relevant proposed "Portion(s)" (as defined in the Standard Contract).

"Key Performance Indicator" or **"KPI"** means each key performance indicator specified in Schedule 4.

"Key Result Area" or **"KRA"** means each key result area specified in Schedule 4.

"Proposal" has the meaning given to that expression in clause 3.1(c)(i)

"PSC Contract" means a contract formed (or deemed to be formed) between the Principal and the Professional Services Contractor under clause 4.

"PSC Personnel" means the persons employed by the Professional Services Contractor and identified in Schedule 3 to this Deed as amended from time to time.

"Replacement Personnel" has the meaning given to that expression in clause 7.10.

"Schedule of Rates" means the rates and prices set out in Schedule 2A, as may be updated in accordance with this Deed.

"Services" means the individual services to be executed on an "as-needed" basis from time to time by the Professional Services Contractor under a PSC Contract formed (or deemed to be formed) in accordance with this Deed.

"Services Order" means a notice titled "Services Order" in the form of Schedule 1 issued by the Principal to the Professional Services Contractor pursuant to clause 3.1(a).

"Services Order Acceptance" has the meaning given to that expression in clause 3.2.

"Standard Contract" means the form of contract set out in Schedule 2B to this Deed and as amended from time to time by the Principal.

"Term" means the period commencing on the date of execution of this Deed and expiring 3 years later, as such period may be extended in accordance with clause 2.2(b).

(a) Any reference in this Deed to "Technical Advisor" will be taken to be a reference to the Professional Services Contractor;

(b) the words "including", "includes" and "include" will be read as if followed by the words "without limitation";

(c) a reference to any party to this Deed includes that party's executors, administrators, successors, and permitted substitutes and assigns, including any person taking part by way of novation;

(d) a reference to this Deed, to any other agreement, document or instrument is deemed to include a reference to this Deed, such other agreement, document or instrument as amended, novated, supplemented, varied or replaced from time to time;

(e) a reference to any legislation or to any section or provision of it includes:

  (i) any statutory modification or re-enactment of, or any statutory provision substituted for, that legislation, section or provision; and

  (ii) ordinances, by-laws, regulations of and other statutory instruments issued under that legislation, section or provision;

(f) words in the singular include the plural (and vice versa) and words denoting any gender include all genders;

(g) headings are for convenience only and do not affect the interpretation of this Deed;

(h) a reference to a party, clause or Schedule is a reference to a party, clause or Schedule of or to this Deed;

(i) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;

(j) for all purposes (other than where otherwise designated as a Business Day), "day" means calendar day and "week" means a period of 7 calendar days;

(k) a reference to $ is to Australian currency;

(l) no rule of construction applies to the disadvantage of a party on the basis that the party put forward or drafted this Deed or any part;

(m) any reference to "information" will be read as including information, representations, statements, data, samples, calculations, assumptions, deductions, determinations, drawings, design, specifications, models, plans and other documents in all forms including the electronic form in which it was generated; and

(n) any reference in this Deed to "the Deed" or "this Deed" will be taken to be a reference to this Deed.

2. Operation

2.1 Commencement

This Deed comes into operation upon execution.

2.2 Expiry

(a) This Deed shall end upon its termination or at 4.00 pm on the last day of the Term, whichever occurs first.

(b) The Principal may, in its absolute discretion, extend the Term for a period of 1 year by notice in writing to the Professional Services Contractor, provided that:

(i) it does so no later than 1 month before the expiry of the Term; and

(ii) the Term shall not be extended under this clause 2.2(b) more than twice.

2.3 No guarantee of work

Without limiting clause 3A, the Professional Services Contractor acknowledges and agrees that the Principal:

(a) is not under any obligation to:

(i) issue any number or value of Services Orders or Services Order Acceptances to the Professional Services Contractor; or

(ii) engage the Professional Services Contractor to perform any quantity or value of Services,

during the Term (or otherwise); and

(b) does not warrant or guarantee, or make (and has not made) any representation or other assurance, that it will:

(i) issue any, or any minimum or maximum number of, Services Orders or Services Order Acceptances to the Professional Services Contractor; or

(ii) engage the Professional Services Contractor to perform any quantity or value of Services,

during the Term (or otherwise).

2.4 No guarantee of exclusivity

The Principal is not, by executing this Deed, or issuing a Services Order, restricted in any way from engaging any person to carry out consultancy services or other work:

(a) of any type, including consultancy services or other work similar to the consultancy services which may be required of the Professional Services Contractor; or

(b) at any location where, or in respect of any Services in respect of which, the Professional Services Contractor may be required to perform consultancy services.

2.5 No representation

Clauses 2.3 and 2.4 apply even though the Principal may have provided the Professional Services Contractor with a forecast or estimate of the consultancy services that the Principal may require at any time and the Professional Services Contractor acknowledges that any forecasts or estimates do not constitute a representation of the consultancy services the Principal may require in any period.

3. Services Orders

3.1 Services Orders

(a) The Principal may, if it wishes the Professional Services Contractor to undertake consultancy services, issue to the Professional Services Contractor a Services Order which is completed with all relevant particulars in respect of the Services. That Services Order will also confirm if there are any amendments to the applicable Standard Contract set out in Schedule 2 of this Deed, and if there are amendments, provide details of the amendments in the attachment to the Services Order.

(b) A Services Order is an invitation to treat and is not a direction to perform the Services or an offer capable of acceptance.

(c) If the Professional Services Contractor is able to perform the Services identified in a Services Order, it must:

(i) return to the Principal the Services Order with all remaining particulars in the Services Order duly completed, by the time specified in the Services Order (**Proposal**);

(ii) ensure that the proposed "Upper Limiting Fee" included in the

Proposal:

A. is developed based solely on:

1) in respect of that part of the work which the Professional Services Contractor intends to perform itself, the rates and prices in the Schedule of Rates (adjusted for any anticipated adjustments to those rates and prices under clause 7.9 having regard to the periods during which such work is anticipated to be performed and any proposed updates and additions contemplated by clause 3.1(c)(iv)); and

2) in respect of that part of the work which the Professional Services Contractor intends to have performed by subcontractors, reasonable rates and prices received by the Professional Services Contractor from its proposed subcontractors following a reasonable market testing process (having regard to the time available to the Professional Services Contractor to prepare and submit the Proposal); and

B. represents a genuine and reasonable estimate of the likely "Provisional Portion Fee" (as defined in the Standard Contract) for the relevant work and does not include any contingency (unless otherwise agreed by the Principal in writing);

(iii) ensure that the Proposal is accompanied by detailed calculations and supporting information relating to the Proposal, including:

A. a detailed estimate of personnel hours by discipline, including names of proposed personnel;

B. curriculum vitae for any personnel that have not previously been identified as acceptable by the Principal;

C. a built up cost estimate of personnel;

D. a description of work proposed to be subcontracted;

E. an estimate of the costs associated with the work proposed to be subcontracted;

F. a project schedule;

G. a list of deliverables/milestones and a delivery schedule; and

H. any other information requested by the Principal;

(iv) ensure that the Proposal includes proposed updates and additions (if any) to the Schedule of Rates, provided that the Professional Services Contractor must:

A. only propose such updates and additions to the extent necessary to capture individuals and roles necessary for the performance of the work identified in the Services Order and which are not already included in the Schedule of Rates; and

B. only propose rates and prices which are:

1) no less favourable to the Principal than those offered to other clients of the Professional Services Contractor; and

2) at least as competitive as other rates and prices in the Schedule of Rates;

(v) without limiting clause 3.1(c)(iv) and unless otherwise approved in writing by the Principal, ensure that the Proposal does not include any proposed amendments to:

A. the details of the Services Order as completed by the Principal; or

B. the Standard Contract which have not been proposed by the Principal; and

(vi) work with the Principal and the Independent Expert to demonstrate to the satisfaction of the Principal and the Independent Expert that the proposed "Upper Limiting Fee" in the Proposal complies with the requirements of clause 3.1(c)(ii).

(d) Each Proposal must be an irrevocable offer capable of acceptance by the Principal in accordance with clause 3.2.

(e) If the Professional Services Contractor is unable to perform the Services identified in a Services Order, it must immediately notify the Principal by electronic mail on receipt of the Services Order.

(f) The Professional Services Contractor acknowledges and agrees that:

(i) the preparation of a Proposal is not part of the Services; and

(ii) the Professional Services Contractor will not be entitled to make, and the Principal will not be liable upon, any claim arising out of, or in any way in connection with, the Professional Services Contractor's obligations under this clause 3.1 or clause 3.2.

3.2 Services Order Acceptance

(a) If the Principal accepts a Proposal, the Principal must notify the Professional Services Contractor of that acceptance in writing (**Services Order Acceptance**), either attaching a copy of, or otherwise expressly referencing, the relevant Proposal.

(b) A Proposal is deemed not to have been accepted by the Principal until the Professional Services Contractor has received the Services Order Acceptance in accordance with this clause 3.2.

(c) The Principal may, instead of (or prior to) issuing a Services Order Acceptance, notify the Professional Services Contractor that the Principal wishes to negotiate with the Professional Services Contractor in respect of certain aspects of the Proposal, in which case the parties must negotiate in good faith for such period of time as is reasonably required by the Principal. During or following any such negotiations, the Professional Services Contractor may (or, if directed by the Principal, must, within the time directed by the Principal) issue a revised Proposal in accordance with clause 3.1(c), in which case this clause 3.2 shall reapply to any such revised Proposal.

(d) The Principal may, in its absolute discretion, issue a Services Order Acceptance in respect of a Proposal made by the Professional Services Contractor that does not comply with the requirements of clause 3.1.

3.3 No claim

The Professional Services Contractor:

(a) must not perform; and

(b) will not be entitled to make, and the Principal will not be liable upon, any claim arising out of, or in any way in connection with,

any services the subject of a Services Order unless the Proposal submitted by the Professional Services Contractor in respect of that Services Order is the subject of a Services Order Acceptance.

3.4 Source of Services Orders

The Professional Services Contractor agrees only to act on Services Orders that are the subject of a Services Order Acceptance and are received via the email address specified for the Principal in clause 7.7, or such other email address as may be notified in accordance with clause 7.7.

3.5 Electronic Documents

(a) Each party acknowledges that the Principal may issue to the Professional Services Contractor the Services Order referred to in clause 3.1(a) and the Services Order Acceptance referred to in clause 3.2, by electronic means and without any requirement for a signature, in accordance with clause 7.6, and the Principal and the Professional Services Contractor agree that the issue or submission of such documents electronically (irrespective of whether the relevant document is signed) will be deemed to be of the same effect as if the document had been issued or submitted as a signed hard copy.

(b) The Professional Services Contractor must ensure that any documents it provides, including by electronic means, are in the file structure and format for such documents as may be specified by the Principal from time to time.

(c) As at the date of this Deed, the Principal requires such documents which are submitted by email to be submitted as an attachment to an email, where the attachment is in Microsoft Word format.

(d) The Principal will not be liable to the Professional Services Contractor or to any other person for any loss or damage suffered in relation to any document transmitted electronically, including any loss or damage related to or arising out of:

(i) the transmission of any harmful code (such as viruses) to the Professional Services Contractor by electronic mail (including in any document attached to electronic mail); or

(ii) any failure by the Principal to notify the Professional Services Contractor that the Principal may have received any harmful code (such as viruses) from the Professional Services Contractor in any electronic mail (including in any document attached to electronic mail).

3.6 Exclusivity

Except as otherwise approved in writing by the Principal, the Professional Services Contractor must, in respect of the More Trains More Services project:

(a) exclusively perform services for the Principal;

(b) not accept, and ensure that its related entities (including as defined in the *Corporations Act 2001* (Cth)) do not accept, any engagement by, or otherwise perform services for, any person other than the Principal; and

(c) ensure that its employees and each subcontractor engaged by the Professional Services Contractor in respect of the More Trains More Services project exclusively performs services forming part of the Services to be performed by the Professional Services Contractor for the Principal.

This clause 3.6 survives the expiry or termination of this Deed.

3A Deemed Services Order Acceptances

The parties acknowledge and agree that:

(a) the Professional Services Contractor will be deemed to have issued Proposals under clause 3.1(c) in the form of each Proposal set out in Schedule 6 on the date of this Deed; and

(b) the Principal will be deemed to have issued a Services Order Acceptance in respect of each Proposal referred to in clause 3A(a) on the date of this Deed, with a separate PSC Contract being formed in respect of each such Proposal accordingly under clause 4 on the date of this Deed.

4. Formation of individual PSC Contracts

(a) On each occasion that the Principal issues (or is deemed to have issued) a Services Order Acceptance to the Professional Services Contractor in accordance with clause 3.2 or clause 3A,, the Principal and the Professional Services Contractor will be deemed to have entered into a separate binding contract on the date determined in accordance with clause 4(b) (or clause 3A as applicable), on the terms and conditions set out in the Standard Contract in Schedule 2, as particularised and amended

by the relevant Proposal, and the relevant Services Order Acceptance.

(b) Subject to clause 3A, the date on which a PSC Contract under clause 4(a) will be deemed to be formed is the date the Professional Services Contractor is deemed by clause 7.6 to have received the Services Order Acceptance given under clause 3.2.

(c) The Principal and the Professional Services Contractor must carry out their respective obligations under each PSC Contract formed (or deemed to be formed) in accordance with clause 4(a) from the date on which the PSC Contract is deemed to be formed by clause 4(b) (or clause 3A as applicable).

5. Order of precedence

(a) In the case of conflict between any of the documents constituting this Deed, the order of precedence shall be the order set out below:

(i) this Deed;

(ii) the Standard Contract; and

(iii) the form of Services Order.

(b) In the case of conflict between the parties in relation to the contents of a Services Order (including as set out in a Proposal, including any deemed Proposal), the parties agree that subject to the Services Order Acceptance, the Principal's record of the Services Order will be taken to be the binding version of the Services Order.

6. Termination

6.1 Termination of this Deed

(a) The Principal may terminate this Deed at any time for any reason by written notice to the Professional Services Contractor.

(b) Without limiting or otherwise restricting clause 7.10(e), the Principal and the Professional Services Contractor agree that if this Deed is terminated, discharged or becomes frustrated, the separate PSC Contracts formed (or deemed to be formed) in accordance with clause 4 of this Deed will not be affected and must be fulfilled in accordance with the terms of the relevant PSC Contract, except to the extent the parties otherwise agree in writing or the Principal exercises its rights pursuant to the PSC Contract to terminate the PSC Contract or take out of the Professional Services Contractor's hands the whole or part of the Services the subject of the relevant PSC Contract. Termination of this Deed will not prevent either party from relying on rights accrued under this Deed prior to such termination.

6.2 Termination of a PSC Contract

Subject to the express provisions of this Deed and each PSC Contract formed (or deemed to be formed) in accordance with clause 4 of this Deed, the Principal and the Professional Services Contractor agree that the termination, discharge or frustration of any of the separate PSC Contracts formed (or deemed to be formed) in accordance

with clause 4 of this Deed will not affect the operation of this Deed or the operation of any other PSC Contract formed (or deemed to be formed) in accordance with clause 4 of this Deed. Termination of a PSC Contract will not prevent either party from relying on rights accrued under the PSC Contract prior to termination of that PSC Contract.

7. Miscellaneous

7.1 Amendments to this Deed

This Deed may only be amended or varied by a deed executed by the parties.

7.2 Governing Law and Jurisdiction

(a) This Deed is governed by the laws of the State of New South Wales.

(b) Each party irrevocably submits to the exclusive jurisdiction of the courts of the State of New South Wales.

7.3 Further Assurances

Each party must do all things and execute all further documents necessary to give full effect to this Deed.

7.4 Counterparts

This Deed may be executed in any number of counterparts. All counterparts, taken together, constitute one instrument. A party may execute this Deed by signing any counterpart.

7.5 No representations

(a) Each party acknowledges that no party (nor any person acting on its behalf) has made any representation or other inducement to it to enter into this Deed, except for representations or inducements expressly set out in this Deed.

(b) Each party acknowledges and confirms that it does not enter into this Deed in reliance on any representation or other inducement by or on behalf of any other party, except for any representation or inducement expressly set out in this Deed.

7.6 Notices

A notice to be given by a party under this Deed, including:

(a) any Services Order issued by the Principal pursuant to clause 3.1(a);

(b) any Proposal submitted by the Professional Services Contractor pursuant to clause 3.1(c);

(c) any Services Order Acceptance issued by the Principal under clause 3.2;

(d) any notice of removal or replacement of PSC Personnel from Schedule 3 issued by the Professional Services Contractor pursuant to clause 7.10;

(e) any notice to request proposed Additional Personnel issued by the Principal

pursuant to clause 7.11(a);

(f) any notice of proposed Additional Personnel issued by the Professional Services Contractor pursuant to clause 7.11(b) including the provision of relevant information under clause 7.11(c); and

(g) any notice of termination of this Deed issued by the Principal pursuant to clause 6.1,

will be deemed to have been given and received:

(h) if addressed or delivered to the relevant address (including electronic mail address) in this Deed or as last communicated in writing to the person giving the notice; and

(i) on the earliest date of:

(i) actual receipt;

(ii) in the case of electronic mail, the date for receipt of an "electronic communication" that would be determined if section 13A of the Electronic Transactions Act 2000 (NSW) were to apply in respect of the electronic mail; or

(iii) in the case of delivery by:

A. regular prepaid post or registered post, 6 Business Days after the date of posting;

B. priority prepaid post or priority registered post, 4 Business Days after the date of posting; and

C. using express post, 2 Business Days after the date of posting,

provided that any notice personally delivered or sent electronically after 5.00 pm on any working day will be deemed to have been validly delivered at 9.00 am on the next working day.

7.7 Address for service

Any notices contemplated by this Deed, including any Services Order, must be in writing and delivered to the relevant address or sent to the electronic mail address shown below (or to a party's new address or electronic mail address which that party notifies to the other party):

(a) to the Principal:

Address: Level 5 Tower A Zenith Centre 821 Pacific Highway Chatswood NSW 2067

Electronic mail: nicola.rae@transport.nsw.gov.au

Attention: Nicola Rae

(b) to the Professional Services Contractor:

Address: Level 10, 383 Kent Street, Sydney NSW 2000

Electronic mail: mike.barron@mottmac.com

Attention: Michael Barron

A notice sent by electronic mail will be deemed to be in writing for the purposes of this clause.

7.8 Severability

If at any time any provision of this Deed is or becomes illegal, invalid or unenforceable in any respect, the remaining provisions shall in no way be impaired or affected thereby.

7.9 Rates Adjustment

(a) Any rates or prices in the Schedule of Rates will be indexed for movements in the Wage Price Index on and from the date following each yearly anniversary of the date of this Deed (**CPI Adjustment Date**) in accordance with the following formula:

$$A\ (\text{CPI Indexed}) = A \times \frac{CPI_{q-2}}{CPI_{Base}}$$

Where:

A is the monetary amount specified in the Schedule of Rates immediately prior to the CPI Adjustment Date;

CPI_{q-2} is the last CPI published prior to the CPI Adjustment Date;

CPI_{Base} is the last CPI published prior to the date that is 12 months prior to the CPI Adjustment Date; and

CPI means the Wage Price Index (WPI): Total hourly rates of pay excluding bonuses (Original): Australia Sector (Private and Public combined) as maintained and published quarterly by the Australia Bureau of Statistics (ABS), or as otherwise determined in accordance with clause 7.9(b).

(b) If the CPI ceases to be published or its method of calculation substantially alters, then it is to be replaced by the nearest equivalent index as selected in good faith by the Principal and any necessary consequential amendments are to be made.

(c) The adjusted rates and prices in the Schedule of Rates shall apply (where the application of the Schedule of Rates is provided for under this Deed and any relevant PSC Contract) only in respect of the Services carried out by the Professional Services Contractor on or after the relevant date of such adjustment (excluding any part of the Services which, although carried out on or after that date, should have been carried out prior to that date).

(d) For the avoidance of doubt:

(i) the rates or prices in the Schedule of Rates are not subject to change under this clause 7.9 for the first year after the date of this Deed; and

(ii) the "Upper Limiting Fees" specified in each PSC Contract will not be subject to adjustment in accordance with this clause 7.9.

(e) Should the Standing Offer Deed extend beyond the 3 year term then the Principal may at its sole discretion initiate a review of the Schedule of Rates

7.10 Removal or replacement of PSC Personnel

(a) If any of the PSC Personnel cease to be employed by the Professional Services Contractor for any reason, including death, illness or incapacity, the Professional Services Contractor must:

(i) notify the Principal within 10 Business Days from the date on which the employment of the relevant PSC Personnel ceased; and

(ii) promptly notify the Principal of any proposed replacement PSC Personnel (**Replacement Personnel**) to be included in Schedule 3 to this Deed, including their current Curriculum Vitae and their rate for proposed inclusion in the Schedule of Rates.

(b) On each occasion that the Professional Services Contractor provides a notice to the Principal under clause 7.10(a)(i), Schedule 3 to this Deed will be amended by deleting the relevant PSC Personnel from the date on which the notice is deemed to have been received by the Principal in accordance with clause 7.6.

(c) On each occasion that the Professional Services Contractor provides a notice to the Principal under clause 7.10(a)(ii), the Replacement Personnel will be deemed to have been accepted by the Principal if the Principal does not reject the Replacement Personnel in writing within 15 Business Days from the date on which the notice is deemed to have been received by the Principal in accordance with clause 7.6.

(d) If the Principal is deemed to have accepted the Replacement Personnel under clause 7.10(c):

(i) Schedule 3 to this Deed will be deemed amended accordingly; and

(ii) the Schedule of Rates will be deemed to be amended to include the Replacement Personnel and their rate,

from the date of the deemed acceptance by the Principal.

(e) If:

(i) the Professional Services Contractor fails to comply with clause 7.10(a)(i); or

(ii) the Professional Services Contractor does not notify the Principal of any proposed Replacement Personnel (and their rate for

proposed inclusion in the Schedule of Rates) within 45 Business Days (or any longer period agreed by the parties in writing) from the date that it provided a notice under clause 7.10(a)(i); or

(iii) the Principal rejects the proposed Replacement Personnel,

the Principal may, without limiting any other rights of the Principal, terminate this Deed and may terminate any separate PSC Contracts (formed (or deemed to be formed) in accordance with clause 4 of this Deed) pursuant to clause 21.2 of the PSC Contract.

7.11 Additional Personnel

(a) At any time during the term of this Deed, the Principal may issue a notice requesting that the Professional Services Contractor propose additional PSC Personnel to be included in Schedule 3 to this Deed (**Additional Personnel**).

(b) Within 20 Business Days from the date the Professional Services Contractor is deemed to have received the notice issued by the Principal under clause 7.11(a), the Professional Services Contractor must either:

(i) notify the Principal that it will not propose any Additional Personnel; or

(ii) notify the Principal of the Additional Personnel which it proposes for inclusion in Schedule 3.

(c) If the Professional Services Contractor notifies the Principal of proposed Additional Personnel in accordance with clause 7.11(b)(ii), it must also include with the notice the following information relating to each of the proposed Additional Personnel:

(i) a current Curriculum Vitae; and

(ii) confirmation of the Additional Personnel's position and rate.

(d) On each occasion that the Professional Services Contractor proposes Additional Personnel to the Principal under clause 7.11(b)(ii), the Additional Personnel will be deemed to have been accepted by the Principal if the Principal does not reject the Additional Personnel in writing within 15 Business Days from the date on which the information required by clause 7.11(c) is deemed to have been received by the Principal in accordance with clause 7.6.

(e) If the Principal is deemed to have accepted the Additional Personnel under clause 7.11(d):

(i) Schedule 3 to this Deed will be deemed amended accordingly; and

(ii) the Schedule of Rates will be deemed to be amended to include the Additional Personnel and their rate,

from the date of the deemed acceptance by the Principal.

7.12 Curriculum Vitae

The Professional Services Contractor warrants that:

(a) as at the date of this Deed, the curriculum vitae for its personnel included in Schedule 3 are accurate and not misleading in any way; and

(b) as at the date provided to the Principal, the curriculum vitae provided under clauses 7.10(a)(ii) and 7.11(c) are accurate and not misleading in any way

7.13 Independent Expert

The Professional Services Contractor:

(a) acknowledges that the Principal has, or will, appoint the Independent Expert to perform the functions of the Independent Expert contemplated by this Deed and any PSC Contract; and

(b) must provide all required assistance to the Independent Expert to enable the Independent Expert to check, review and validate each component of any "Upper Limiting Fee" proposed by the Professional Services Contractor under clause 3.1(c) and perform any other function of the Independent Expert, including to (whether in conjunction with other functions or otherwise) review and provide an opinion on any "Upper Limiting Fee" proposed by the Professional Services Contractor under clause 3.1(c), including whether it represents a reasonable estimate of the likely "Provisional Portion Fee" (as defined in the Standard Contract) for the relevant proposed "Portion(s)" (as defined in the Standard Contract), including by facilitating access to all relevant information required by the Independent Expert.

7.14 Confidentiality Deed Poll

Within 5 Business Days of the date of this Deed, the Professional Services Contractor must duly execute and provide to the Principal a confidentiality deed poll in the form set out in Schedule 7.

8. Joint and Several Liability

If the Professional Service Contractor comprises more than one person, those persons are jointly and severally liable for the performance and obligations of the Professional Services Contractor.

DEED EXECUTION PAGE

DATED .....9..... day of .....July.....2019

Executed and delivered as a Deed in Sydney

Signed for and on behalf of **Transport for NSW** (ABN 18 804 239 602):

Signature of Authorised Delegate

Signature of Witness

James Griffin

Print Name

(block letters)

Vandana Reddy

Print Name

(block letters)

Executed by **Mott MacDonald Australia Pty Limited ABN 13 134 120 353**, by its attorney and company director:

[redacted]

Name of attorney pursuant to power of attorney dated 19 October 2017:

[redacted] 5/07/19

Date

By executing this document, the attorney states that the attorney has received no notice of revocation of the power of attorney

Signa[redacted]

Name of witness (BLOCK CAPITALS)

Executed by **Mott MacDonald Australia Pty Limited ABN 13 134 120 353**, by its attorney:

[redacted]

Name of attorney
pursuant to power of attorney
dated 19 October 2017:

[redacted]

Signature of witness

[redacted]

Name of witness
(BLOCK CAPITALS)

[redacted] 9th July 2019

Signature of attorney
By executing this document, the attorney states that the attorney has received no notice of revocation of the power of attorney

Date

Executed as a deed in accordance with section 127 of the *Corporations Act 2001* by **SMEC Australia Pty Limited ABN 47 065 475 149**:

[redacted]

Print Name

(block letters)

[redacted]

Signature of Director/Secretary

[redacted]

Print Name

(block letters)

SCHEDULE 1 - FORM OF SERVICES ORDER

Services Order No.: ISD-18-7725/..... **Date:.....**

This Services Order must be returned to the Principal by no later than [#] on [#] in accordance with clause 3 of the Standing Offer Deed dated [ ] between:

Transport for NSW, ABN 18 804 239 602 of Level 5, Tower A, Zenith Centre, 821 Pacific Highway, Chatswood 2067 ("**the Principal**") and

Mott MacDonald Australia Pty Limited (ABN 13 134 120 353) and SMEC Australia Pty Limited (ABN 47 065 475 149), trading as Mott MacDonald Australia Pty Limited & SMEC Australia Pty Limited (ABN 50780189689) of 22 King William Street, Adelaide SA 5000 (**"Professional Services Contractor"**)

If the Principal issues a Services Order Acceptance in accordance with clause 3.2, a contract will be deemed to be formed in accordance with clause 4 of the Standing Offer Deed.

All terms defined in the Standing Offer Deed or PSC Contract have the same meaning in this Services Order. Clause references below refer to the Standard Contract in Schedule 2 of the Standing Offer Deed (as amended by this Services Order, including as set out in the attachment to this Services Order).

Date by which Services Order (Proposal) must be returned to the Principal:	*[To be completed by the Principal prior to issue of the Services Order]*	
Portion(s)	**Portion:**	**Portion Description** (as more particularly described in the Services Brief referred to in this Services Order)):
	[insert]	[insert]
	[To be completed by the Principal (even if there is only 1 initial Portion). If there is only one Portion, the Portion Description should be completed as "All of the Services"]	
Commencement Date: (clause 1)	*[To be completed by the Principal prior to issue of the Services Order]*	
Additional Completion Requirements: (clause 1)	*[To be completed by the Principal prior to issue of the Services Order]*	
Additional Confidential Information: (clause 1)	*[To be completed by the Principal prior to issue of the Services Order]*	

Additional Agreement Documents: **(clause 2.8(a)(iii))**	*[To be completed by the Principal prior to issue of the Services Order. Provide a list of all other documents necessary to fully identify the works eg specification that are intended to form part of the Agreement. Note that the definition of "Agreement" in the Standard Contract already references the Services Brief (so the Services Brief does not need to be listed here).]*	
Upper Limiting Fee: **(clause 1)**	**Portion:** [Insert]	**Upper Limiting Fee:** $[insert] (excluding GST) [Professional Services Contractor to propose Upper Limiting Fee for each Portion]
Services: **(clause 1)**	In Accordance with the Services Brief in Attachment 1 of the Standing Offer Deed	
Services Brief: **(clause 1)**	Attachment 1 of the Standing Offer Deed	
Date for Completion **(clause 18.2)**	**Portion:** [insert]	**Date for Completion:** [insert] *[To be completed by the Principal for each Portion prior to the issue of the Services Order]*
Time Period for provision of Safety Report: **(clause 3.2)**	*[To be completed by the Principal prior to the issue of the Services Order]* [specify the time period] or [insert "when requested by the Principal"] or ["As required by clause 295 of the Work Health and Safety Regulation 2017"].	
Required Level of Professional Indemnity Insurance: (clause 10.1)	[redacted] per occurrence and in the aggregate	
Time for maintaining Professional Indemnity Insurance: (clause 10.1)	6 years	
Required Level of Public Liability Insurance: (clause 10.2)	[redacted] per occurrence	

Key People (clause 11.2)	[Professional Services Contractor to list and confirm the names above as appropriate for the Services to be provided]
Professional Services Contractor's Representative: (clause 11.1)	[To be completed by the Professional Services Contractor upon receipt of the Services Order issued by the Principal] Tel:
Principal's Representative: (clause 11.3)	*[To be completed by the Principal prior to the issue of the Services Order]* Tel:
Hourly rates for the valuation of Variations: (clause 16.3)	In accordance with Schedule 2A of Standing Offer Deed
Expert Determination final and binding amount: (clause 19.3(c))	[redacted]
Limit of Professional Services Contractor's Liability: (clause 26)	[redacted]

ATTACHMENT - AMENDMENTS TO THE FORM OF STANDARD CONTRACT AS SET OUT IN THE STANDING OFFER DEED

[To be completed by the Principal prior to issue of the Services Order]

SCHEDULE 2 – STANDARD CONTRACT AND SCHEDULE OF RATES

SCHEDULE 2A - SCHEDULE OF RATES

It is to be noted that the Schedule of Rates includes all travel and accommodation for all Australian based staff.

Fees will be paid on a daily rates basis with a maximum daily fee for each person of 8 hours. Should the services be required for less than a full day, an hourly rate shall apply, to a maximum of 8 hours on a pro rata basis.

The Schedule of Rates excludes travel and accommodation for international staff who have been requested by TfNSW to visit Sydney. Any request for international staff is only with the prior written approval from TfNSW.

Role	Nominated Individual	Daily Rate ($/Unit) ($A excl GST)
Design Manager	[redacted]	[redacted]
Cost Manager	[redacted]	[redacted]
Constructability Manager	[redacted]	[redacted]
Environmental Manager	[redacted]	[redacted]
Service Planning Lead	[redacted]	[redacted]
Geotechnical Lead	[redacted]	[redacted]
Project Director	[redacted]	[redacted]
Senior Project Manager	As rate card	
Project Manager	As rate card	
Commercial Manager	[redacted]	[redacted]
Contracts Administrator	As rate card	
Discipline Lead Designer (list per Discipline i.i Pway, Signalling)	As rate card	
Snr Designer	As rate card	
Designer	As rate card	
CAD-Operator	As rate card	
Snr Cost Planner	As rate card	
Cost Planner	As rate card	
Senior Scheduler	[redacted]	[redacted]
Scheduler	As rate card	
Risk, Opportunities and Innovation Manager	[redacted]	[redacted]
Sustainability Engineer	As rate card	
Environmental Engineer	As rate card	
Safety Manager	[redacted]	[redacted]
HV and Traction Power Design Lead	[redacted]	[redacted]

Role	Nominated Individual	Daily Rate ($/Unit) ($A excl GST)
LV Distribution and Lighting Design Lead	[redacted]	[redacted]
Earthing and Bonding Design Lead	[redacted]	[redacted]
Permanent Way Design Lead	[redacted]	[redacted]
Civil Engineering Design Lead	[redacted]	[redacted]
Lead Surveyor	[redacted]	[redacted]
Structural Design Lead	[redacted]	[redacted]
Communications, Technology and Control Systems Design Lead	[redacted]	[redacted]
Rolling Stock Design Lead	[redacted]	[redacted]
Transport Demand Modelling Lead (Road & Rail)	[redacted]	[redacted]
Pedestrian Modelling Lead	[redacted]	[redacted]
Fire Life Safety Design Lead	[redacted]	[redacted]
Urban Design and Architectural Lead	[redacted]	[redacted]
Sustainability Lead	[redacted]	[redacted]
Safety Assurance Lead	[redacted]	[redacted]
Protection Officer Level 2	TBC	[redacted]
Protection Officer Level 4	TBC	[redacted]
Surveyor	[redacted]	[redacted]
Geotechnical Engineer	As rate card	
Standard Labourer (blended rate to cover weekend, nights, public holiday)	Not Required	
Signalling Design Lead	[redacted]	[redacted]
Package Manager B1	[redacted]	[redacted]
Package Manager B2	[redacted]	[redacted]
Package Manager B3	[redacted]	[redacted]
Package Manager B4	[redacted]	[redacted]
Package Manager B5	[redacted]	[redacted]
Package Manager B6	[redacted]	[redacted]
Package Manager B7	[redacted]	[redacted]
Package Manager B8	[redacted]	[redacted]
Package Manager B9	[redacted]	[redacted]
Package Manager B10	[redacted]	[redacted]
Document Controller	[redacted]	[redacted]
Admin	[redacted]	[redacted]
Digital Platform Setup and Coordination Lead	[redacted]	[redacted]
Stakeholder Engagement Manager	[redacted]	[redacted]
Global Advisory Team	Global Advisory Team	[redacted]
Wellbeing and Diversity	[redacted]	[redacted]
Rail Systems Lead	[redacted]	[redacted]

Role	Nominated Individual	Daily Rate ($/Unit) ($A excl GST)
Stations and Station Systems Lead	[redacted]	[redacted]
Systems Engineering	[redacted]	[redacted]
Asset Operations Specialist	[redacted]	[redacted]
Asset Maintenance Specialist	[redacted]	[redacted]
SCADA & Telecommunications Discipline Lead	[redacted]	[redacted]
Disability Discrimination Act Consultant	[redacted]	[redacted]
BCA Consultant	[redacted]	[redacted]
Landscape Architect	[redacted]	[redacted]
Heritage Consultant	[redacted]	[redacted]
Bridge Design	[redacted]	[redacted]
Roads and Traffic Engineering	[redacted]	[redacted]
Utilities Engineer	[redacted]	[redacted]
Hydrology and Flooding	[redacted]	[redacted]
Tunnelling	[redacted]	[redacted]
Geotechnical Survey	[redacted]	[redacted]
Rail Service Planning	[redacted]	[redacted]
Pedestrian Modelling Lead	[redacted]	[redacted]
Customer Centric Design	[redacted]	[redacted]
Land Use and Value Capture Lead	[redacted]	[redacted]
OHW Design Lead	[redacted]	[redacted]
Noise and Vibration Specialist	[redacted]	[redacted]
Transport Planning	[redacted]	[redacted]
Transport Planning	[redacted]	[redacted]
Transport Planning	[redacted]	[redacted]
Transport Planning	[redacted]	[redacted]
Transport Planning	[redacted]	[redacted]
Transport Planning	[redacted]	[redacted]
Transport Planning	[redacted]	[redacted]
Civil Engineering and Utilities	[redacted]	[redacted]
Civil Engineering and Utilities	[redacted]	[redacted]
Civil Engineering and Utilities	[redacted]	[redacted]
Civil Engineering and Utilities	[redacted]	[redacted]
Civil Engineering and Utilities	[redacted]	[redacted]
Structural Engineering	[redacted]	[redacted]
Structural Engineering	[redacted]	[redacted]
Signalling	[redacted]	[redacted]
Electrical Engineering	[redacted]	[redacted]

Role	Nominated Individual	Daily Rate ($/Unit) ($A excl GST)
Electrical Engineering	[redacted]	[redacted]
Permanent Way / Track	[redacted]	[redacted]
Permanent Way / Track	[redacted]	[redacted]
Permanent Way / Track	[redacted]	[redacted]
Permanent Way / Track	[redacted]	[redacted]
Permanent Way / Track	[redacted]	[redacted]
Land Use Delivery Team	[redacted]	[redacted]
Land Use and Urban Design Review	[redacted]	[redacted]
Land Use Delivery Team	[redacted]	[redacted]
Transport Economics Lead	[redacted]	[redacted]
Transport Economics	[redacted]	[redacted]
Architecture Delivery Team	[redacted]	[redacted]
Architecture Delivery Team	[redacted]	[redacted]
Architecture Design Review	[redacted]	[redacted]
3D Visualisation	[redacted]	[redacted]
Market Assessment Lead	[redacted]	[redacted]
Market Assessment Delivery Team	[redacted]	[redacted]
Bridge Engineering	[redacted]	[redacted]
Bridge Engineering	[redacted]	[redacted]
Environmental Engineer	[redacted]	[redacted]
Sustainability Engineer	[redacted]	[redacted]
Tunnel Engineering	[redacted]	[redacted]
Geotechnical Engineering	[redacted]	[redacted]
Geotechnical Engineering	[redacted]	[redacted]
Rolling Stock	[redacted]	[redacted]
Rolling Stock	[redacted]	[redacted]
GIS	[redacted]	[redacted]
GIS	[redacted]	[redacted]
GIS	[redacted]	[redacted]
GIS	[redacted]	[redacted]
BIM	[redacted]	[redacted]
BIM	[redacted]	[redacted]
BIM	BIM	[redacted]
BIM	[redacted]	[redacted]
BIM	[redacted]	[redacted]
BIM	[redacted]	[redacted]
CAD	[redacted]	[redacted]

Role	Nominated Individual	Daily Rate ($/Unit) ($A excl GST)
CAD	[redacted]	[redacted]
CAD	[redacted]	[redacted]
Systems Engineering and Safety Assurance	[redacted]	[redacted]
Systems Engineering and Safety Assurance	[redacted]	[redacted]
Systems Engineering and Safety Assurance	[redacted]	[redacted]
Lead Project Estimator	[redacted]	[redacted]
Project Estimator - Civils	[redacted]	[redacted]
Senior Estimator - Civils	[redacted]	[redacted]
Project Estimator - Utilities & OPEX	[redacted]	[redacted]
Senior Estimator - Rail Systems	[redacted]	[redacted]
Estimator - Civils	[redacted]	[redacted]
Estimator - Utilities & OPEX	[redacted]	[redacted]
Peer Reviewer and Subject Matter Expert	[redacted]	[redacted]
Interface Management	[redacted]	[redacted]
Interface Management	[redacted]	[redacted]
Interface Management	[redacted]	[redacted]
STM Modelling	[redacted]	[redacted]
STM Modelling	[redacted]	[redacted]
PTPM Modelling	[redacted]	[redacted]
PTPM Modelling	[redacted]	[redacted]
ETCM Modelling	[redacted]	[redacted]
ETCM Modelling	[redacted]	[redacted]
ETCM Modelling	[redacted]	[redacted]
RailSys Modelling	[redacted]	[redacted]
RailSys Modelling	[redacted]	[redacted]
Pedestrian Modelling	[redacted]	[redacted]
Bus Planning	[redacted]	[redacted]
Rail Itinerary	[redacted]	[redacted]
Rail Service Planning	[redacted]	[redacted]
Land use Planning and Transport Integration	[redacted]	[redacted]
Land use Planning and Transport Integration	[redacted]	[redacted]
Fleet Stabling / Maintenance	[redacted]	[redacted]
Track Speed and Geometry	[redacted]	[redacted]
Multi Modal Integration	[redacted]	[redacted]
Value Engineering	[redacted]	[redacted]
Planning and Environmental Services	[redacted]	[redacted]

VARIATION RATES FOR STM MODEL

Deliverables	Unit	Rate ($A excl. GST)
STM model run and outputs as per the services brief	1	[redacted]
PTPM model run and outputs as per the services brief	1	[redacted]
ETCM model run and outputs as per the services brief	1	[redacted]
If equivalent model is proposed to be used - 1x model run and outputs		

RATE CARD FOR FUTURE WORK PORTIONS AND VARIATIONS OVER THE CONTRACT PERIOD

Engineering team support

Category description	Level	Hourly rate $(ex GST)
Commercial Manager	7	[redacted]
Senior Project Manager	6	[redacted]
Project Manager	5	[redacted]
Project Controls	4	[redacted]
Senior Administrator	3	[redacted]
Administrator	2	[redacted]

Engineering, Transport Planning and Design

Category description	Level	Hourly rate $(ex GST)
Senior Engineering Executive	9	[redacted]
Executive/Supervisor/discipline lead/technical specialist	8	[redacted]
Technical Director/ Principal	7	[redacted]
Associate Engineer	6	[redacted]
Senior Engineer/ Planner	5	[redacted]
Experienced Engineer/ Planner	4	[redacted]
Engineer/ Planner	3	[redacted]
Graduate	2	[redacted]
Undergraduate	1	[redacted]

Technicians

Category description	Level	Hourly rate $(ex GST)
Principal Technician / Principal Digital Engineering	7	[redacted]
Associate Technician / Associate Digital Engineering	6	[redacted]
Senior technician / Senior Digital Engineering	5	[redacted]
Experienced Technician / Digital Engineering	4	[redacted]
Technician / Digital Engineering	3	[redacted]
Trainee/Junior Technician	2	[redacted]

Environment and Planning

Category description	Level	Hourly rate $(ex GST)
Technical Director/ Managing Planner	9	[redacted]
Managing Planner	8	[redacted]
Supervising Planner	7	[redacted]
Project Planner	6	[redacted]
Senior Planner	5	[redacted]
Experienced Planner	4	[redacted]
Planner	3	[redacted]
Graduate Planner	2	[redacted]

Quantity Surveying

Category description	Level	Hourly rate $(ex GST)
Peer Reviewer and Subject Matter Expert	9	[redacted]
Rail Systems Subject Matter Expert	7	[redacted]
Lead Project Estimator	6	[redacted]
Project Estimator	5	[redacted]
Senior Estimator	3	[redacted]
Estimator	2	[redacted]
Undergraduate	1	[redacted]

Architecture, Urban Design, and Land Use Planning

Category description	Level	Hourly rate $(ex GST)
Senior Executive	9	[redacted]
Executive/Supervisor/Discipline lead/ specialist	8	[redacted]
Director/Principal Architect / Planner	7	[redacted]
Associate Architect / Planner	6	[redacted]
Senior Architect / Planner	5	[redacted]
Experienced Architect / Planner	4	[redacted]
Engineer/ Planner	3	[redacted]

SCHEDULE 2B - STANDARD CONTRACT

Transport for NSW

PROFESSIONAL SERVICES CONTRACT
(Incentivised Payment Regime)

Contract No. ISD-18-7725

Technical Advisor

More Trains More Services (MTMS)

Between

Transport for NSW

[PRINCIPAL]

ABN 18 804 239 602

and

Mott MacDonald Australia Pty Limited (ABN 13 134 120 353)

and

SMEC Australia Pty Limited (ABN 47 065 475 149),

trading as

Mott MacDonald Australia Pty Limited &

SMEC Australia Pty Limited (ABN 50 780 189 689)

[PROFESSIONAL SERVICES CONTRACTOR]

Level 5, Zenith Centre, Tower A
821 Pacific Highway
Chatswood NSW 2067

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PROFESSIONAL SERVICES CONTRACT – GENERAL CONDITIONS

This Agreement is between the Principal and the Professional Services Contractor set out in the Contract Particulars.

1 DEFINITIONS AND INTERPRETATION

1.1 Definitions

In this Agreement:

"Additional Track Possession" has the meaning given in clause 36(d).

"Agreement" means the contractual relationship between the Principal and the Professional Services Contractor constituted by:

(a) these General Conditions, all Schedules including the Contract Particulars attached to these General Conditions and any Exhibits; and

(b) the other documents (if any), referred to in the Contract Particulars.

"Approved Subcontract" means a subcontract between the Professional Services Contractor and an Approved Subcontractor which complies with the requirements of this Agreement.

"Approved Subcontractor" means a Subcontractor engaged by the Professional Services Contractor in accordance with this Agreement to perform part of the Services.

"ASA Authorisation" means an authorisation issued by the ASA to a legal entity which verifies that it has the relevant systems in place to carry out the class of Asset Lifecycle work specified in the authorisation, subject to any conditions of the authorisation.

"ASA Charter" means the document which identifies the ASA's objectives, functions, powers and governance and the duties of Rail Transport Agencies and AEOs in relation to the ASA (as amended from time to time), a copy of which can be found on www.asa.transport.nsw.gov.au.

"ASA Requirements" has the meaning assigned to it in the ASA Charter.

"Asset Lifecycle" has the meaning assigned to it in the ASA Charter.

"Asset Services" means the aspects of the Services which relate to the Asset Lifecycle of NSW Rail Assets.

"Asset Standards Authority" or "ASA" means the unit within Transport for NSW which sets, controls, maintains, owns and publishes the network and asset standards for NSW Rail Assets. Information about the ASA and the network and asset standards can be found on www.asa.transport.nsw.gov.au

"Authorised Engineering Organisation" or "AEO" means a legal entity to whom the ASA has issued an ASA Authorisation.

"Authority" means any Federal, State or local government, semi-government, or other body, authority or person, statutory or otherwise (including the ASA), including any court or tribunal, having jurisdiction over the Project, the Services or the performance by the Professional Services Contractor of its obligations under this Agreement or with whose utility services the Services are or will be connected.

"Business Day" means any day other than:

(a) a Saturday, Sunday or public holiday in New South Wales, or

(b) 27, 28, 29, 30 or 31 December.

"CCU" means Construction Compliance Unit, the unit established within NSW Industrial Relations to monitor compliance with and receive reports of alleged breaches of the NSW Guidelines.

"Commencement Date" means the date stated in the Contract Particulars.

"Competence Records" means, with respect to any Rail Safety Worker engaged in connection with the Services (including those engaged by Subcontractors), the following information:

(a) the rail safety training undertaken by the Rail Safety Worker, including when, and for how long, the training was undertaken;

(b) the qualifications of the Rail Safety Worker, including (if applicable):

(i) the units of competence undertaken to achieve the qualification;

(ii) the level of qualification attained;

(iii) if, and when, a re-assessment of competence is to be conducted;

(iv) if, and when, any re-training is due and was undertaken; and

(v) the name of any organisation conducting training or re-training;

(c) the name and qualifications of any person who assessed the competence of the worker; and

(d) any further information requested by the Principal with respect to the competence of the Rail Safety Worker.

"Completion" is the stage when the Services are, or a Portion is, complete in accordance with this Agreement, including those things referred to in the Contract Particulars.

"Confidential Information" includes, but is not limited to, the following:

(a) the documents specified in the Contract Particulars;

(b) any material produced by the Professional Services Contractor under this Agreement; and

(c) any other information or data that the Professional Services Contractor is given or which comes to the Professional Services Contractor's knowledge during the course of the consultancy that:

(i) the Professional Services Contractor is told is confidential; or

(ii) a reasonable person would expect to be confidential from its nature and content,

but does not include:

(d) information which, at the time of disclosure, was already in the public domain;

(e) information which, subsequent to disclosure, enters the public domain except through breach of this Agreement, through breach of the Confidentiality Deed Poll in Schedule 2 by a recipient of disclosed information, or through breach of any other obligation of confidence; or

(f) information which the Professional Services Contractor or a recipient of disclosed information (who has signed a Confidentiality Deed Poll in Schedule 2) is required to disclose by law or the listing rules of the Australian Securities Exchange.

"Construction Contractor" means the incentivised delivery contractor or incentivised delivery contractors that will be engaged by the Principal for the purposes of completing the design and construction of the Project (or any part).

"Contract Material" means those documents (including, but not limited to, information stored by electronic and other means) and materials created or required to be created under this Agreement by the Professional Services Contractor.

"Contract Particulars" means the particulars in Schedule 1.

"Date for Completion" means, in respect of:

(a) each Portion specified in the Contract Particulars, the relevant date shown in the Contract Particulars; or

(b) each Portion directed by the Principal's Representative in accordance with clause 18.11, the date determined by the Principal's Representative (acting reasonably) in accordance with clause 18.11,

in each case as that date may be adjusted in accordance with this Agreement.

"Defect" means any:

(a) defect, deficiency, fault, error or omission in the Services; or

(b) other aspect of the Services that are not in accordance with the requirements of this Agreement, including non-compliances, non-conformances and non-conformities.

"Event of Insolvency" means if:

(a) a party informs the other party in writing or creditors generally that the party is insolvent or is financially unable to proceed with this Agreement;

(b) execution is levied against a party by a creditor;

(c) a party is an individual person or a partnership including an individual person, and if that person:

(i) commits an act of bankruptcy;

(ii) has a bankruptcy petition presented against him or her or presents his or her own petition;

(iii) is made bankrupt;

(iv) makes a proposal for a scheme of arrangement or a composition; or

(v) has a deed of assignment or deed of arrangement made, accepts a composition, is required to present a debtor's petition, or has a sequestration order made, under part X of the *Bankruptcy Act 1966* (Cth); or

(d) in relation to a party being a corporation:

(i) notice is given of a meeting of creditors with a view to the corporation entering a deed of company arrangement;

(ii) the party enters a deed of company arrangement with creditors;

(iii) a controller or administrator is appointed;

(iv) an application is made to a court for the winding-up of the party and not stayed within 14 days;

(v) a winding-up order is made in respect of the party;

(vi) resolves by special resolution that the party be wound up voluntarily (other than for a members' voluntary winding-up); or

(vii) a mortgagee of any property of the party takes possession of that property.

"Fee" means the sum of all Portion Fees.

"Financial Auditor" means the person nominated in the Contract Particulars or any other person appointed from time to time by the Principal and notified in writing to the **Professional Services Contractor**.

"Foreign Legal Opinion" means a legal opinion in favour of the Principal which is:

(a) in a form acceptable to the Principal; and

(b) from a lawyer acceptable to the Principal who is authorised to practice in the place of incorporation of the relevant foreign entity to which the legal opinion relates.

"Independent Expert" has the meaning given in the Standing Offer Deed.

"Intellectual Property Rights" means any patent, registered design, trademark or name, copyright or other protected right.

"Key People" means the person(s) nominated in the Contract Particulars, as those person(s) may be replaced in accordance with clause 11.2.

"Notice of Completion" means a notice issued under clause 18.8(d)(i) by the Principal's Representative, including as contemplated by clause 18.9.

"NSW Code" has the meaning given in clause 34.2.

"NSW Guidelines" has the meaning given in clause 34.1.

"NSW Rail Assets" has the meaning assigned to it in the ASA Charter.

"NSW Trains" means the corporation by that name constituted by Part 3C of the *Transport Administration Act 1988* (NSW).

"Option" means an option referred to in Schedule 7.

"Other Contractor" means any consultant, contractor, supplier or other person engaged by the Principal in relation to the Project other than the Professional Services Contractor and its Subcontractors, the Key People and the Professional Services Contractor's Representative.

"Other PSC Contract" means any "PSC Contract" (as defined in the Standing Offer Deed) other than this Agreement.

"Other PSC Contract Services" means any "Services" (as defined in any Other PSC Contract).

"Personal Information" has its meaning in the *Privacy and Personal Information Protection Act 1998* (NSW).

"Portion" means a portion of the Services:

(a) described in the Contract Particulars; or

(b) directed under clause 18.11.

"Portion Fee" means, in respect of each Portion:

(a) if the relevant Provisional Portion Fee is less than or equal to the relevant Upper Limiting Fee, the relevant Provisional Portion Fee; or

(b) if the relevant Provisional Portion Fee is greater than the relevant Upper Limiting Fee, the aggregate of:

  (i) the relevant Upper Limiting Fee;

  (ii) [redacted] of that part of the relevant Provisional Portion Fee that exceeds the relevant Upper Limiting Fee by an amount that is less than or equal to [redacted] of the relevant Upper Limiting Fee; and

  (iii) [redacted] of that part of the relevant Provisional Portion Fee that exceeds the relevant Upper Limiting Fee by an amount that is greater than [redacted] of the relevant Upper Limiting Fee.

"Principal's Representative" means the person nominated in the Contract Particulars or any other person appointed from time to time by the Principal under clause 11.3.

"Professional Services Contractor's Certificate of Completion" means the certificate in the form set out in Schedule 8.

"Professional Services Contractor's Representative" means the person nominated in the Contract Particulars under clause 11.1.

"Project" means the project or projects stated in the Contract Particulars in respect of which the Services are provided.

"Proposal" means the "Proposal" (as defined in the Standing Offer Deed) which was accepted (or deemed to be accepted) by the Principal in accordance with the Standing Offer Deed, resulting in this Agreement being deemed to be entered into in accordance with the Standing Offer Deed.

"Provisional Portion Fee" means, in respect of each Portion, the aggregate of:

(a) for the Services comprised in the Portion which are performed directly by the Professional Services Contractor (and not a Subcontractor), the amount determined by the Principal's Representative by applying the Schedule of Rates to that part of the relevant Services properly performed by the Professional Services Contractor in accordance with this Agreement, except to the extent any such Services are required as a result of any breach of the Standing Offer Deed, this Agreement or any Other PSC Contract by the Professional Services Contractor, or any other act or omission of the Professional Services Contractor or its employees or Subcontractors which is not in accordance with the Standing Offer Deed, this Agreement or any Other PSC Contract; and

(b) for the Subcontracted Services comprised in the Portion, the aggregate of:

(i) the costs directly and reasonably paid by the Professional Services Contractor to relevant Approved Subcontractors in accordance with the relevant Approved Subcontract for the performance of the relevant Subcontracted Services, except to the extent any such costs:

A. arise out of, or in connection with, any breach of the Standing Offer Deed, this Agreement, any Other PSC Contract or the relevant Approved Subcontract by the Professional Services Contractor, or any other act or omission of the Professional Services Contractor or its employees or Subcontractors which is not in accordance with the Standing Offer Deed, this Agreement or any Other PSC Contract; or

B. otherwise exceed the relevant Approved Subcontractor's entitlements under the relevant Approved Subcontract (including pursuant to an adjudication determination under the SOP Act); and

(ii) the percentage stated in the Contract Particulars of the amount referred to in paragraph (b)(i),

provided that no amount shall form part of the Provisional Portion Fee to the extent that:

(c) the Standing Offer Deed, this Agreement or any Other PSC Contract provides that the Professional Services Contractor is not entitled to claim such amount, or is otherwise not entitled to any claim in respect of the relevant event or circumstances to which such amount relates; or

(d) such amount is payable to the Professional Services Contractor under the Standing Offer Deed or any other PSC Contract.

"RailCorp" means Rail Corporation New South Wales (ABN 59 325 778 353), a corporation constituted by section 4(1) of the *Transport Administration Act 1988* (NSW).

"Rail Safety National Law" means the *Rail Safety National Law* (NSW), as defined in the *Rail Safety (Adoption of National Law) Act* 2012, and any associated regulations.

"Rail Safety Work" has the meaning given in section 8 of Rail Safety National Law.

"Rail Safety Worker" has the meaning given in section 4 of the Rail Safety National Law.

"Rail Transport Agency" means Transport for NSW (and each of its divisions), RailCorp, Sydney Trains and NSW Trains.

"Railway Track" means the rails fastened on sleepers or transoms and founded on ballast, bridge decking or concrete slab, associated signalling and overhead wiring components (in electrified areas).

"Safety Report" means the report required to be prepared by a designer of a structure by clause 295 of the *Work Health and Safety Regulation 2017* (NSW).

"Schedule of Rates" has the meaning given in the Standing Offer Deed.

"Services" means the whole of the services to be carried out and completed in accordance with this Agreement (as may be generally described in the Contract Particulars), including any changes required as a result of the exercise of an Option by the Principal's Representative under clause 16.5 or due to Variations provided for by this Agreement.

"Services Brief" means the document specified as such in the Proposal.

"SOP Act" means the *Building and Construction Industry Security of Payment Act 1999* (NSW).

"Standing Offer Deed" means the Standing Offer Deed (ISD-18-7725) between the parties pursuant to which this Agreement was deemed to be entered into.

"Statutory Requirements" include:

(a) acts, ordinances, regulations, by-laws, orders, awards and proclamations of the Commonwealth and the State of New South Wales;

(b) certificates, licences, consent, permits, approvals and requirements of organisations having jurisdiction applicable to the Services or any other Authority; and

(c) relevant Australian Standards applicable to the Services.

"Subcontracted Services" means that part of the Services which are performed by Subcontractors under an Approved Subcontract.

"Subcontractor" includes any person engaged by the Professional Services Contractor for the performance of any part of the Services, including a consultant.

"Sydney Trains" means the corporation by that name constituted by Part 3B of the *Transport Administration Act 1988* (NSW).

"TfNSW" means Transport for NSW (ABN 18 804 239 602), a NSW Government agency and corporation constituted by section 3C of the *Transport Administration Act 1988* (NSW).

"TfNSW Statement of Business Ethics" means the document titled "Transport for NSW Statement of Business Ethics" which can be found on the TfNSW website.

"Track Possession" means a period during which the Professional Services Contractor has access to Railway Track for the purpose of carrying out the Services.

"WHS Legislation" means the following as it may apply from time to time:

(a) the *Work Health and Safety Act 2011* (NSW) and the *Work Health and Safety Regulation 2017* (NSW); and

(b) all other acts, regulations and codes of practice relating to work health and safety which apply in the State in which the Services are being executed.

"Upper Limiting Fee" means, in respect of:

(a) each Portion set out in the Contract Particulars, the relevant amount set out in the Contract Particulars; and

(b) each Portion directed by the Principal's Representative in accordance with clause 18.11, the amount determined by the Principal's Representative (acting reasonably) in accordance with clause 18.11,

in each case as may be adjusted in accordance with this Agreement.

"Upper Limiting Fee Incentive Payment" means, in respect of each Portion for which the final Provisional Portion Fee is less than the final Upper Limiting Fee, [redacted] of the difference between that Upper Limiting Fee and that Provisional Portion Fee.

"Variation" has the meaning given in clause **16.1(a).**

1.2 Interpretation

In this Agreement unless the context otherwise requires:

(a) references to a person include an individual, a body politic, the estate of an individual, a firm, a corporation, an Authority, an association or joint venture (whether incorporated or unincorporated), or a partnership;

(b) the words "including", "includes" and "include" will be read as if followed by the words "without limitation";

(c) a reference to any party to this Agreement includes that party's executors, administrators, successors, and permitted substitutes and assigns, including any person taking part by way of novation;

(d) a reference to any Authority, institute, association or body is:

(i) if that Authority, institute, association or body is reconstituted, renamed or replaced or if the powers or functions of that Authority, institute, association or body are transferred to another organisation, deemed to refer to the reconstituted, renamed or replaced organisation or the organisation to which the powers or functions are transferred, as the case may be; and

(ii) if that Authority, institute, association or body ceases to exist, deemed to refer to the organisation which serves substantially the same purposes or objects as that Authority, institute, association or body;

(e) a reference to this Agreement or to any other deed, agreement, document or instrument is deemed to include a reference to this Agreement or such other deed, agreement, document or instrument as amended, novated, supplemented, varied or replaced from time to time;

(f) a reference to any legislation or to any section or provision of it includes:

(i) any statutory modification or re-enactment of, or any statutory provision substituted for, that legislation, section or provision; and

(ii) ordinances, by-laws, regulations of and other statutory instruments issued under that legislation, section or provision;

(g) words in the singular include the plural (and vice versa) and words denoting any gender include all genders;

(h) headings are for convenience only and do not affect the interpretation of this Agreement;

(i) a reference to:

(i) a party, clause, Schedule or Exhibit is a reference to a party, clause, Schedule or Exhibit of or to this Agreement; and

(ii) a paragraph or a sub-paragraph is a reference to a paragraph or sub-paragraph in the clause in which the reference appears;

(j) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;

(k) for all purposes (other than where otherwise designated as a Business Day), "day" means calendar day and "week" means a period of 7 calendar days;

(l) a reference to $ is to Australian currency;

(m) no rule of construction applies to the disadvantage of a party on the basis that the party put forward or drafted this Agreement or any part;

(n) any reference to "information" will be read as including information, representations, statements, data, samples, calculations, assumptions, deductions, determinations, drawings, design, specifications, models, plans and other documents in all forms including the electronic form in which it was generated;

(o) any reference in this Agreement to "the Contract" or "this Contract" will be taken to be a reference to this Agreement; and

(p) any reference in this Agreement to "Technical Advisor" will be taken to be a reference to the Professional Services Contractor.

1.3 Authorities

(a) This Agreement will not in any way unlawfully restrict or otherwise unlawfully affect the unfettered discretion of:

(i) the Principal, Sydney Trains, NSW Trains or RailCorp to exercise any of their respective functions and powers pursuant to any Statutory Requirements; or

(ii) the ASA to exercise any of it functions and powers pursuant to the ASA Charter.

(b) Without limiting clause 1.3(a), anything the Principal, Sydney Trains, NSW Trains, RailCorp or the ASA do, or fail to do or purport to do, pursuant to their respective functions and powers under any Statutory Requirements or the ASA Charter will be deemed not to be an act or omission by the Principal under this Agreement.

(c) The Professional Services Contractor:

(i) waives any claims that it may have against the Principal as a result of the exercise by the Principal, Sydney Trains, NSW Trains, RailCorp or the ASA of their respective functions and powers under any Statutory Requirements or the ASA Charter; and

(ii) acknowledges and agrees that:

A. there are many Authorities with jurisdiction over aspects of the Services;

B. such Authorities may from time to time exercise their statutory functions and powers in such a way as to disrupt, interfere with or otherwise affect the Services (including, the exercise by persons (including individuals) acting on behalf of such Authorities of powers and functions including as necessary for such Authorities to comply with their statutory functions and powers); and

C. it bears the full risk of all occurrences of the kind referred to in clause 1.3(c)(ii)B and will not be entitled to make, and the Principal will not be liable upon, any claim arising out of or in any way in connection with such occurrences.

1.4 Relationship

Nothing in this Agreement is to be construed or interpreted as making the relationship between the Principal on the one hand and the Professional Services Contractor on the other hand as that of partners, joint venturers or any other fiduciary relationship.

2 TERMS OF ENGAGEMENT

The Principal engages the Professional Services Contractor to perform the Services in accordance with this Agreement.

3 PROFESSIONAL SERVICES CONTRACTOR'S OBLIGATIONS

3.1 General

The Professional Services Contractor must:

(a) perform the Services in accordance with this Agreement in consideration of the payments to be made by the Principal under clause 17;

(b) perform the Services in compliance with the TfNSW Statement of Business Ethics;

(c) perform the Services to that standard of skill, care and diligence to be expected of a professional services contractor who regularly acts in the capacity in which the Professional Services Contractor is engaged and who possesses the knowledge, skill and experience of a professional services contractor qualified to act in that capacity;

(d) use all reasonable efforts to inform itself of the requirements of the Principal and regularly consult with the Principal during the performance of the Services;

(e) liaise, co-operate and confer with others as directed by the Principal;

(f) promptly give written notice to the Principal if and to the extent the Professional Services Contractor becomes aware that any document or other information provided by the Principal is ambiguous or inaccurate or is otherwise insufficient to enable the Professional Services Contractor to carry out the Services;

(g) make reasonable enquiries to ascertain the requirements of the Principal regarding the Services, including in respect of any hazards and risks at the site upon which the Project is to be constructed of which the Principal is aware;

(h) regularly consult the Principal regarding the carrying out of the Services;

(i) as soon as practicable after becoming aware of any matter or circumstances which may adversely affect or has adversely affected the scope, timing or carrying out of the Services, give written notice to the Principal detailing the matter or circumstances and its anticipated effect on the Services;

(j) ensure that any person employed or engaged by the Professional Services Contractor and its Subcontractors who undertakes any work in connection with the Services complies with all Statutory Requirements, including the WHS Legislation;

(k) without limiting any other provision of this Agreement, consult with the Principal as required to enable the Principal to discharge its obligations under clause 294 of the *Work Health and Safety Regulation 2017* (NSW);

(l) whilst performing the Services, require all persons to:

  (i) report for work and whilst working be free from the influence of alcohol and otherwise comply with section 128 of the Rail Safety National Law and be free from the influence of any other drugs (below the cut off level stipulated by the Australian Standard AS/NZS 4308:2008); and

  (ii) undergo random and targeted alcohol and drug testing in accordance with the Rail Safety National Law, the TfNSW 60-ST-010 - Alcohol and Other Drugs and TfNSW 60-PR-085 Testing for Alcohol and Other Drugs;

(m) ensure that any person employed or engaged by the Professional Services Contractor and its Subcontractors who undertakes any Rail Safety Work in connection with the Services complies with any Statutory Requirements, including:

  (i) the provisions of the Rail Safety National Law;

  (ii) holding and maintaining Rail Safety Worker ("RSW") certification; and

  (iii) the WHS Legislation;

(n) prior to any Rail Safety Worker carrying out any Rail Safety Work in connection with the Services, provide the Principal with the Competence Records in the form directed by the Principal (which may be electronic);

(o) ensure that any Rail Safety Worker who carries out Rail Safety Work in connection with the Principal's railway operations has the competence to carry out that work; and

(p) ensure that each Rail Safety Worker used in connection with the Services has a form of identification that is sufficient to enable the type of competence and training undertaken by that Rail Safety Worker to be checked by a rail safety officer.

The Professional Services Contractor warrants that it has done everything that would be expected of a skilled, prudent, experienced and professional consultant in assessing the risks which it is assuming under this Agreement and ensuring that the Fee contains allowances to protect it against any of these risks eventuating.

3.2 Complying with Statutory Requirements

(a) The Professional Services Contractor must comply with:

(i) all Statutory Requirements including the WHS Legislation;

(ii) the requirements of the Building Code of Australia; and

(iii) the requirements of any other standards or codes,

which apply to the Services.

(b) Without limiting the above the Professional Services Contractor must prepare the Safety Report in accordance with the requirements of, and otherwise discharge its obligations under, the provisions of the WHS Legislation. The Professional Services Contractor must give a copy of the Safety Report to the Principal within the time specified in the Contract Particulars.

(c) Without limiting or otherwise affecting the obligations of the Professional Services Contractor under any other provision of this Agreement, the parties acknowledge and agree that, to the extent that the Services constitute a 'construction project' for the purposes of Chapter 6 of the *Work Health and Safety Regulation 2017* (NSW):

(i) the Principal has engaged SMEC Australia Pty Ltd as principal contractor for the Services;

(ii) the Principal authorises SMEC Australia Pty Ltd to:

A. have management and control of all relevant workplaces relevant to the Services; and

B. discharge, exercise and fulfil the functions, duties and obligations of a principal contractor under Chapter 6 of the *Work Health and Safety Regulation 2017* (NSW) in connection with the Services;

(iii) SMEC Australia Pty Ltd accepts the engagement as principal contractor and agrees to discharge, exercise and fulfil the functions, duties and obligations imposed on a principal contractor by the WHS Legislation; and

(iv) to the extent that SMEC Australia Pty Ltd is, for any reason, taken or otherwise found not to be the principal contractor for the Services, SMEC Australia Pty Ltd must discharge, exercise and fulfil the functions, duties and obligations of a principal contractor in respect of the Services as if SMEC Australia Pty Ltd was the principal contractor for the Services.

3.3 Non-Complying Services

If the Principal discovers or believes that the Services, or any part thereof, have not been performed in accordance with this Agreement (including any Contract Material not complying with the requirements of this Agreement), the Principal may give the Professional Services Contractor a direction specifying the non-complying Services and do one of the following:

(a) require the Professional Services Contractor to:

(i) re-perform the non-complying Services (including by amending the Contract Material) within a specified time period; and

(ii) take all such steps as are reasonably necessary to:

A. mitigate the effect on the Principal of the failure to perform the Services in accordance with this Agreement; and

B. put the Principal (as closely as possible) in the position in which it would have been if the Professional Services Contractor had performed the Services in accordance with this Agreement; or

(b) advise the Professional Services Contractor that the Principal will accept the non-complying Services under this clause 3.3(b) despite the non-compliance, in which event the Principal will be entitled to recover from the Professional Services Contractor any additional costs which will be incurred by the Principal as a result of the non-compliance, including any costs incurred by the Principal in having the non-complying Services re-performed by an Other Contractor; or

(c) advise the Professional Services Contractor that the Principal will accept the non-complying Services under this clause 3.3(c) despite the non-compliance, in which event:

(i) the value of the non-complying Services, as determined by the Principal's Representative or in accordance with clauses 16.3(b) or 16.3(c), will be a debt due and payable by the Professional Services Contractor to the Principal; and

(ii) the Professional Services Contractor will have no entitlement to make any claim against the Principal arising out of or in connection with the non-complying Services.

3.4 Re-performance of the Non-complying Services

If a direction is given under clause 3.3(a), the Professional Services Contractor must, at its own cost, re-perform the non-complying Services:

(a) within the time specified in the Principal's instruction; and

(b) so as to minimise the delay and disruption to the performance of the Services.

If the Professional Services Contractor fails to comply with this clause 3.4, the Principal may (without limiting any other right of the Principal) give the Professional Services Contractor a direction under clauses 3.3(b) or 3.3(c).

3.5 Safety and Environment

(a) The Professional Services Contractor must:

(i) prior to appointing any Subcontractor, assess the work health and safety management capability of such Subcontractor and institute systems to obtain regular written assurances from all Subcontractors about their ongoing compliance with the WHS Legislation including the due diligence obligation contained therein;

(ii) prior to commencing to perform the Services on the site of the Project ensure that all Key People (and other relevant persons) have undertaken any induction required by the Principal;

(iii) in the provision of the Services comply with and procure that any Subcontractor and its employees comply with all the requirements of the WHS Legislation and any other requirements of this Agreement for work health, safety and rehabilitation management;

(iv) comply with, and procure that any Subcontractor complies with, any reasonable directions issued by the Principal's Representative in relation to work, health, safety or the environment including where the direction is given because Key People are not complying with their obligations under this clause 3.5;

(v) immediately inform the Principal's Representative verbally of all work health, safety and environment matters arising out of, or in any way connected with the Services or the Project;

(vi) provide written assurances obtained pursuant to clause 3.5(a)(i), together with written assurances from the Subcontractor and its employees about the Subcontractor's and its employees' ongoing compliance with the WHS Legislation, to the Principal;

(vii) comply with its obligation under the WHS Legislation to consult, cooperate and coordinate activities with all other persons who have a work health and safety duty in relation to the same matter including co-operate with the Principal's Representative and any contractor engaged by the Principal with respect to the Project and co-ordinate the Services with the work of the Principal's Representative and any contractor engaged by the Principal with respect to the Project;

(viii) exercise a duty of utmost good faith to the Principal in carrying out the Services to enable the Principal to discharge the Principal's duties under the WHS Legislation; and

(ix) ensure its subcontracts include provisions equivalent to the obligations of the Professional Services Contractor in this clause 3.5 and any other provisions of this Agreement concerning work health and safety matters.

(b) The Professional Services Contractor's design (if any) must:

(i) take into account best work health and safety practice applicable to the construction, utilisation, operation, safety and/or maintenance of the Project; and

(ii) be subject to a health, safety and environment review by a suitably qualified person at appropriate stages of the design development process (if any) to verify the design's compliance with the WHS Legislation.

3.6 Licensing and Authorisation

The Professional Services Contractor must:

(a) ensure that if any Statutory Requirement (including the WHS Legislation) requires that:

(i) a person:

A. be authorised or licensed (in accordance with the WHS Legislation) to carry out any part of the Services at that workplace, that person is so authorised or licensed, and complies with any conditions of such authorisation or licence; and/or

B. has prescribed qualifications or experience to carry out any part of the Services or, if not, is to be supervised by a person who has prescribed qualifications or experience (as defined in the WHS Legislation), that person has the required qualifications or experience or is so supervised; or

(ii) a workplace, plant or substance (or design), or work (or class of work) be authorised or licensed, that workplace, plant or substance, or work is so authorised or licensed;

(b) not direct or allow a person to carry out work or use plant or substance at a workplace unless the requirements under clause 3.6(a) are met (including any requirement to be authorised, licensed, qualified or supervised); and

(c) if requested by the Principal, the Principal's Representative or required by the WHS Legislation, produce evidence of any approvals, certificates, authorisations, licences, prescribed qualifications or experience, or any other information relevant to work health and safety (as the case may be) to the satisfaction of the Principal before the Professional Services Contractor commences such work.

3.7 Duties under WHS Legislation

Without limiting the Professional Services Contractor's obligations under any other clause of this Agreement, insofar as the Professional Services Contractor, in carrying out the Services, is a person conducting a business or undertaking that designs plant, substances or structures to whom section 22 of the *Work Health and Safety Act 2011* (NSW) applies, then to the extent that the obligations under that section apply to the Services the Professional Services Contractor must comply with the applicable obligations under the WHS Legislation.

3.8 Engineering Authorisation

The Professional Services Contractor warrants that it is, and will remain at all times during the performance of the Services, an Authorised Engineering Organisation with ASA Authorisation covering all relevant aspects of the Services.

3.9 ASA Compliance

(a) Not used.

(b) Not used.

(c) The Professional Services Contractor must (and must ensure that all personnel for which it is responsible):

(i) comply with the conditions of the applicable ASA Authorisation;

(ii) implement and comply with the requirements of any ASA Requirements applicable to the Asset Services;

(iii) cooperate fully with the ASA in the performance of the ASA's functions;

(iv) provide access to premises and resources as reasonably required by the ASA, including so that it can effectively carry out its review, surveillance and audit functions;

(v) comply with the directions, instructions and requirements issued by the ASA;

(vi) notify the ASA of any matter that could reasonably be expected to affect the exercise of the ASA's functions;

(vii) provide the ASA with any information relating to its activities or any documents or other things reasonably required by the ASA in the exercise of its functions; and

(viii) provide the Principal with such reasonable assistance as may be reasonably required by the Principal to enable the Principal to cooperate fully with the ASA and to implement and comply with ASA Requirements.

(d) The Professional Services Contractor acknowledges and agrees that it is not entitled to make (and neither the Principal nor the ASA will be liable upon) any claim arising out of or in connection with the requirement to have ASA Authorisation, or the obligation to comply with the requirements of the ASA and the applicable ASA Authorisation.

3.10 Parent Company Guarantee and Foreign Legal Opinion

The Professional Services Contractor must:

(a) provide the Principal with a deed of guarantee and indemnity in the form of Schedule 6 duly executed by the entity named in the Contract Particulars within 20 Business Days after the date of this Agreement; and

(b) where the deed of guarantee and indemnity provided by the Professional Services Contractor in accordance with clause 3.10(a) is executed by a guarantor that is incorporated outside of Australia, a Foreign Legal Opinion which confirms that the deed of guarantee and indemnity has been duly executed by, and is binding and enforceable against, that guarantor.

3.11 Co-location of personnel

The Professional Services Contractor must either:

(a) co-locate some key team members in the Principal's offices (as nominated by the Principal from time to time); or

(b) have a dedicated location within the Professional Services Contractor's premises (the location and other details of which must be acceptable to the Principal) exclusively for the purposes of performing the Services.

4 JOINT AND SEVERAL LIABILITY

If the Professional Services Contractor comprises more than one person, those persons are jointly and severally liable for the performance and obligations of the Professional Services Contractor.

5 SUBCONTRACTING

(a) The Professional Services Contractor must not subcontract any part of the Services without the prior written approval of the Principal. For the purposes of such approval, the Professional Services Contractor may have included a list of proposed Subcontractors in the Proposal.

(b) An approval given by the Principal permitting the Professional Services Contractor to subcontract any portion of the Services does not relieve the Professional Services Contractor from its obligations and liabilities pursuant to this Agreement and the Professional Services Contractor will be vicariously liable for the acts and omissions of its Subcontractors.

(c) Without limiting any other provision of this clause 5, the Professional Services Contractor must ensure that any subcontract it enters into in respect of the Services:

(i) is a lump sum arrangement on reasonable commercial terms, provided that the Professional Services Contractor may (acting reasonably) engage a Subcontractor on a schedule of rates basis as detailed in the Proposal;

(ii) prohibits the Subcontractor from assigning or subcontracting without the Professional Services Contractor's written consent;

(iii) contains provisions which may be reasonably necessary to enable the Professional Services Contractor to fulfil the Professional Services Contractor's obligations to the Principal;

(iv) requires the Professional Services Contractor and the Subcontractor to promptly execute a deed of novation in the form required by the Principal in the event that this Agreement is terminated; and

(v) requires the Subcontractor to effect and maintain professional indemnity insurance to a level approved by the Principal.

(d) The Professional Services Contractor must immediately take steps to replace any Subcontractor that is requested by the Principal, acting reasonably, to be removed from the Services, and obtain the written approval of the Principal to the replacement prior to engaging the replacement.

6 CONTRACTOR PERFORMANCE REPORTING

The Professional Services Contractor acknowledges that the Principal has in place processes for assessing the performance of its professional services contractors and that these processes will apply to the Standing Offer Deed and this Agreement. The Professional Services Contractor agrees to participate in the Principal's Contractor Performance Reporting process.

6.1 Exchange of Information between Government Departments and Agencies

The Professional Services Contractor authorises the Principal, its employees and agents to make information concerning the Professional Services Contractor available to NSW government departments or agencies. Such information may include, but need not be limited to, any information provided by the Professional Services Contractor to the Principal and any information relating to the Professional Services Contractor's performance under the Standing Offer Deed and this Agreement.

The Professional Services Contractor acknowledges that:

(a) any information about the Professional Services Contractor from any source, including but not limited to substantiated reports of unsatisfactory performance, may be taken into account by the Principal and NSW government departments and agencies in considering whether to offer the Professional Services Contractor future opportunities for NSW government work; and

(b) the Principal may be required to publish information concerning the Standing Offer Deed or this Agreement in accordance with sections 27 to 35 of the *Government Information (Public Access) Act 2009* (NSW). If the Professional Services Contractor reasonably believes that any part of the Standing Offer Deed or this Agreement contains information which is commercial-in-confidence or could reasonably be expected to affect public safety or security, the Professional Services Contractor must immediately advise the Principal in writing, identifying the provisions and providing reasons so that the Principal may consider exempting those provisions from publication.

7 INTELLECTUAL PROPERTY

7.1 Ownership

The Intellectual Property Rights in or relating to the Contract Material will vest in the Principal.

The Principal grants to the Professional Services Contractor an irrevocable licence to use those Intellectual Property Rights for the purpose of carrying out the Services. The Professional Services Contractor will retain the Intellectual Property Rights in any original ideas, equipment processes or systems created outside the terms of this Agreement and used in carrying out the Services.

The Professional Services Contractor must grant or cause to be granted to the Principal an irrevocable royalty-free licence (which includes the right to sublicense third parties) to use such Intellectual Property Rights for any purpose the Services are provided for including, but limited to, any subsequent repairs to, maintenance or servicing of (including the supply of replacement parts) or additions or alterations to, the Project and the copying of any document for such purposes.

7.2 Warranty and Indemnity

The Professional Services Contractor warrants that in providing the Services the Professional Services Contractor owns or is licensed to use the Intellectual Property Rights in the Contract Material and the Professional Services Contractor must indemnify the Principal against any action, claim, demand, liability, loss or damage suffered or incurred by the Principal arising out of or in connection with any alleged or actual infringement of the Intellectual Property Rights of a third party in the performance of the Services or the use of the Contract Material by the Principal, any Construction Contractor or any other sub-licensee referred to in clause 7.1.

The Principal warrants that documents and materials provided by the Principal to the Professional Services Contractor for the Services will not infringe the Intellectual Property Rights of a third party.

7.3 Moral Rights

If the Professional Services Contractor in performing the Services includes or makes use of any work or other subject matter in which copyright subsists, the Professional Services Contractor must procure from every person (whether a Subcontractor or an officer or employee of the Professional Services Contractor or of a Subcontractor, and including the Professional Services Contractor's Representative and the Key People) who is an author of that work or subject matter a written consent signed by that person for the benefit of the Principal and the Professional Services Contractor, under which (to the maximum extent permitted by law) that person irrevocably and unconditionally:

(a) consents to the Principal and the Professional Services Contractor:

(i) using, disclosing, reproducing, transmitting, exhibiting, communicating, adapting, publishing or otherwise exercising its rights in relation to that work or subject matter anywhere in the world in whatever form the Principal and the Professional Services Contractor thinks fit (including, but not limited to, the making of any distortions, additions, or alterations to that work or subject matter or any adaptation thereof, or to any part of that work or subject matter or of any such adaptation in a manner which but for the consent, infringes or may infringe that person's moral rights in the work or other subject matter) as so used, disclosed, reproduced, transmitted, exhibited, communicated, adapted or published; and

(ii) using, disclosing, reproducing, transmitting, exhibiting, communicating, adapting, publishing or otherwise exercising its rights in relation to that work or subject matter or any adaptation thereof (or any part of that work or subject matter or of any such adaptation) anywhere in the world including pursuant to the *Copyright Act 1968* without making any identification of that person in relation thereto; and

(b) waives, to the extent permitted by law, all and any moral rights to which that person may be entitled anywhere in the world in relation to any Contract Material.

8 CONFLICT OF INTEREST

(a) The Professional Services Contractor warrants that no conflict of interest exists in relation to the Services at the date of this Agreement.

(b) The Professional Services Contractor must immediately provide the Principal written notice upon becoming aware of the existence, or possibility, of an actual or perceived conflict of interest in the performance of the Services.

(c) On receipt of a notice under clause 8(b), the Principal may:

(i) approve the Professional Services Contractor continuing to perform the Services, which approval may be subject to conditions specified by the Principal (including requirements relating to separation arrangements) to ensure appropriate management of the conflict; or

(ii) where in the Principal's view the conflict of interest cannot be appropriately managed, and without limiting clause 21, terminate this Agreement by notice in writing to the Professional Services Contractor effective from the date specified in the notice.

(d) The Principal may, at its sole discretion and at any time, require the Professional Services Contractor to sign and procure that each of its officers, employees, Subcontractors or agents involved in the performance of the Services signs and delivers to the Principal a Statement of Interests and Associations in the form attached in Schedule 4.

9 INDEMNITY BY PROFESSIONAL SERVICES CONTRACTOR

The Professional Services Contractor must indemnify the Principal against:

(a) loss of or damage to property of the Principal including, but not limited to, the Contract Material; and

(b) claims by any person against the Principal in respect of personal injury or death or loss of or damage to any other property,

arising out of or in consequence of carrying out the Services or any other act or omission of the Professional Services Contractor or its employees or Subcontractors in connection with the Services, but the Professional Services Contractor's liability to indemnify the Principal will be reduced proportionally to the extent that the act or omission of the Principal or the employees, agents or other contractors of the Principal contributed to the loss, damage, injury or death.

10 INSURANCE

10.1 Professional Indemnity Insurance

Before the Professional Services Contractor commences carrying out the Services, the Professional Services Contractor must effect a professional indemnity insurance policy for the Services with a total aggregate cover of not less than the sum stated in the Contract Particulars.

The policy must include provisions for one automatic reinstatement of the sum insured and for loss of documents. The policy and such level of cover must be maintained until the Professional Services Contractor completes carrying out the Services and thereafter for a period as stated in the Contract Particulars.

The Professional Services Contractor must ensure that its Subcontractors have professional indemnity insurance to a level approved by the Principal.

10.2 Public Liability Insurance

The Professional Services Contractor must maintain a public liability policy for an amount in respect of any one claim or series of claims arising from one original cause of not less than the sum stated in the Contract Particulars. The policy must be maintained until the Professional Services Contractor completes carrying out the Services.

The policy must cover the Professional Services Contractor in respect of liability to the Principal and third parties in respect of any claim arising from the acts or omissions of the Professional Services Contractor, its employees and Subcontractors in the course of carrying out the Services and must extend to indemnify the Principal as one of the class of persons constituting the Insured or note the Principal as an interested party but not in respect of liability to the extent that the liability is due to or results from the negligence of the Principal.

10.3 Insurance of Employees

Before the Professional Services Contractor commences carrying out the Services, the Professional Services Contractor must insure against liability for death or injury to persons employed by the Professional Services Contractor including, but not limited to, liabilities, under statute including relevant workers compensation legislation and at common law. The insurance cover must be maintained until the Professional Services Contractor completes carrying out the Services.

Where permitted by law, the insurance cover must be extended to indemnify the Principal for the Principal's statutory liability for persons employed by the Professional Services Contractor. The Professional Services Contractor must ensure that employees of the Professional Services Contractor's Subcontractors are similarly insured.

10.4 Professional Services Contractor's Insurance Obligations

The Professional Services Contractor must:

(a) provide the Principal's Representative with a copy of, or certificate of currency for, any insurance policies required by this clause 10 prior to commencement of the Services and evidence satisfactory to the Principal's Representative that the policy is current as required by the Principal's Representative from time to time; and

(b) ensure that it:

(i) does not do anything which prejudices the insurance;

(ii) if necessary, rectifies anything which might prejudice any insurance;

(iii) reinstates any insurance policy if it lapses;

(iv) does not cancel, vary or allow an insurance policy to lapse without providing prior written notification to the Principal's Representative. Such notification will not constitute a waiver of the Principal's rights under this Agreement;

(v) immediately notifies the Principal's Representative of any event which may result in an insurance policy lapsing or being cancelled; and

(vi) gives full, true and particular information to the insurer of all matters and things the non-disclosure of which might in any way prejudice or affect any such policy or the payment of all or any benefits under the insurance.

11 REPRESENTATIVES

11.1 Professional Services Contractor's Representative

The person nominated in the Contract Particulars is the Professional Services Contractor's Representative for this Agreement, and:

(a) has the legal power to bind the Professional Services Contractor in respect of any matter arising in connection with the Services;

(b) has the authority to receive directions on behalf of the Professional Services Contractor from the Principal and the Principal's Representative;

(c) is competent to be the Professional Services Contractor's Representative; and

(d) is not discharged or replaced as the Professional Services Contractor's Representative without the written consent of the Principal, which cannot be unreasonably withheld. Any substitute representative must be notified promptly in writing to the Principal.

11.2 Key People

The Professional Services Contractor must:

(a) engage the Key People specified in the Contract Particulars in the performance of the Services and in the positions (if any) specified in the Contract Particulars;

(b) ensure the Key People (including any replacement) will devote sufficient time to the services they are retained to do such that the Services are performed promptly, efficiently, skilfully, in a timely fashion and in accordance with this Agreement;

(c) subject to clause 11.2(d), not replace the Key People without the Principal's Representative's prior written approval which will not be unreasonably withheld;

(d) if any of the Key People:

(i) dies;

(ii) becomes unable to continue in their positions due to illness; or

(iii) resigns from the employment of the Professional Services Contractor (other than to accept other employment with the Professional Services Contractor or any "related body corporate" of the Professional Services Contractor (as that term is defined in section 9 of the *Corporations Act 2001* (Cth));

promptly notify the Principal's Representative and replace those Key People with personnel of at least equivalent experience, ability, knowledge and expertise approved by the Principal's Representative; and

(e) immediately take steps to replace any Key People who are requested by the Principal, acting reasonably, to be removed from the Services with a replacement of equivalent (and otherwise adequate) expertise and experience, and obtain the written approval of the Principal, which will not be unreasonably withheld, to the replacement prior to engaging the replacement.

11.3 Principal's Representative

The person nominated in the Contract Particulars is the Principal's Representative for this Agreement and has the legal power to bind the Principal in respect of any matter arising in connection with the Services. Any substitute representative must be notified promptly in writing to the Professional Services Contractor.

The Principal's Representative may by notice in writing to the Professional Services Contractor delegate any or all of its functions to another person.

12 DIRECTIONS

12.1 Directions

The Professional Services Contractor must comply with the directions of the Principal or the Principal's Representative. Except where this Agreement otherwise provides, a direction may be given orally.

If the Professional Services Contractor in writing requests the Principal to confirm an oral direction in writing, the Principal must do so as soon as practicable.

12.2 Programming

The Professional Services Contractor must give the Principal reasonable advance notice of when the Professional Services Contractor needs other information, materials, documents or instructions from the Principal.

The Principal shall not be obliged to give any information, materials, documents or instructions earlier than the Principal should reasonably have anticipated at the date of this Agreement and in any event no earlier than 10 Business Days after the request for the information, materials, document or instruction was made by the Professional Services Contractor.

The Principal may direct in what order and at what time the various stages or Portions of the Services must be carried out and the Professional Services Contractor must comply with any such direction.

13 RECORD KEEPING AND PROGRAM REPORTING

(a) The Professional Services Contractor must:

(i) keep, and ensure its Subcontractors keep, accurate records of the performance of the Services and any other records relevant to the calculation of the Fee and any Upper Limiting Fee Incentive Payment;

(ii) ensure that all persons engaged in the performance of the Services produce and maintain:

A. a daily diary record of tasks performed; and

B. to the extent any Provisional Portion Fee is time based, a daily timesheet accurately recording the time spent in the performance of the Services;

(iii) at the request of the Principal, the Principal's Representative, the Independent Expert or the Financial Auditor, provide, and ensure that its Subcontractors provide, the records referred to in this clause 13 for inspection and copying;

(iv) if required, provide the Principal's Representative with periodic program reports on the engagement as required by this Agreement;

(v) ensure that all records required to be kept by this Agreement, including the Competence Records, are current and accurate; and

(vi) whenever requested by the Principal's Representative, provide the Principal's Representative with a written report containing details on all work health and safety matters arising out of the Services, including in respect of any matters concerning or arising out of clause 3.2 and clauses 3.5 to 3.7.

(b) The records referred to in this clause 13 must be retained for seven (7) years after completion of the Services.

(c) The Professional Services Contractor:

(i) acknowledges that the Principal has, or will, appoint:

A. the Independent Expert to perform the functions of the Independent Expert contemplated by the Standing Offer Deed and this Agreement; and

B. the Financial Auditor to perform the functions of the Financial Auditor contemplated by this Agreement; and

(ii) must provide all required assistance to:

A. the Independent Expert to enable the Independent Expert to perform any function of the Independent Expert; and

B. the Financial Auditor to enable the Financial Auditor to check, review and validate any costs incurred by the Professional Services Contractor, any amount paid or payable by the Principal to the Professional Services Contractor, and any amount otherwise claimed by the Professional Services Contractor, under or in connection with this Agreement,

including by facilitating access to all relevant information required by the Independent Expert or the Financial Auditor.

14 COLLABORATIVE AUDITING PROCESS

The Professional Services Contractor and the Principal will, on a collaborative basis, develop, agree and implement, a scope and program for the Principal's Representative to undertake audits of the Professional Services Contractor's compliance with the requirements of the Professional Services Contractor's quality management system (if applicable) as these may apply to the Services and obligations under this Agreement and:

(a) the Professional Services Contractor agrees to participate and assist in the development and completion of these audits; and

(b) the Professional Services Contractor and the Principal's Representative shall when requested share the results of any self verification by the Professional Services Contractor and/or the outcome of any audits completed.

15 ACCESS TO PROFESSIONAL SERVICE CONTRACTOR'S PREMISES

The Professional Services Contractor must, at all reasonable times and upon reasonable notice, permit the Principal access to the Professional Services Contractor premises in order for the Principal to inspect, discuss and assess the Contract Material and any other material obtained by the Professional Services Contractor from any person in connection with this Agreement.

16 VARIATIONS

16.1 Proposal

(a) The Principal may direct in writing that the Professional Services Contractor vary the Services, including, but not limited to, addition to, omission from or deletion of any part of the Services, or the timing, including, but not limited to, the Date for Completion, of the Services (or part of the Services) or both (**Variation**).

(b) If a Variation the subject of a direction by the Principal omits or deletes any part of the Services, the Principal may thereafter carry out the omitted or deleted Services either itself or engage an Other Contractor to carry out the omitted or deleted Services or part of the Services and the Professional Services Contractor will have no entitlement to make any payment claim against the Principal arising out of or in connection with the omitted or deleted Services or any part thereof.

(c) If the Principal gives such a direction where the need for the Variation is in order to overcome any Defect in or from the Services, any costs or losses suffered or incurred by the Principal in having the Services which have been deleted or omitted carried out by an Other Contractor will be a debt due and payable by the Professional Services Contractor to the Principal.

(d) Nothing in clause 16.1(c) limits the Principal's rights under clauses 3.3(b) and (c).

(e) If the Principal proposes a Variation, the Principal will specify in the direction a reasonable time by which the Professional Services Contractor must provide a written estimate of the time, cost and programming effects of the proposed Variation. If no time is specified, the Professional Services Contractor must provide the estimate within 14 days.

16.2 Variation Direction

Whether or not the Professional Services Contractor provides a written estimate under clause 16.1(e), the Principal may direct in writing the Professional Services Contractor to carry out a Variation, and the Professional Services Contractor must comply with such direction.

A Variation excludes any changes to the Services that are required due to the exercise of an Option by the Principal's Representative under clause 16.5.

16.3 Valuation

The value of a Variation directed under clause 16.1 or 16.2 will be determined by the Principal's Representative as follows:

(a) by agreement between the Principal's Representative and the Professional Services Contractor including, but not limited to, where the Professional Services Contractor has provided a written estimate pursuant to clause 16.1(e), which the Principal has accepted, the amount in that written estimate;

(b) by using the hourly rates and other prices set out in the Contract Particulars where included and where these are reasonable to use; or

(c) on the basis of reasonable prices and rates determined by the Principal's Representative.

Each relevant Upper Limiting Fee will be increased or decreased (as the case may be) by the value (or relevant part of the value) of each Variation as determined in accordance with this clause 16.3.

The Professional Services Contractor acknowledges and agrees that the Principal's Representative may consult with, and obtain the advice of, the Independent Expert and the Financial Auditor in making any determination under this clause 16.3.

16.4 Variation due to a Change in a Statutory Requirement

If a new Statutory Requirement or a change in a Statutory Requirement:

(a) necessitates a change to the Services;

(b) has effect after the date of this Agreement; and

(c) could not reasonably have been anticipated at that date,

then the extent to which the Services are changed by the Statutory Requirement shall be deemed to be a Variation and will be valued pursuant to clause 16.3.

16.5 Option

The Principal's Representative may, by written notice given to the Professional Services Contractor at any time within the period stated in Schedule 7, exercise any Option. Commencing upon the issue of such a notice by the Principal's Representative, the Principal and the Professional Services Contractor must perform their obligations under this Agreement on the basis that the relevant Upper Limiting Fees and the provisions of this Agreement will be adjusted as set out in Schedule 7 for the relevant Option.

For the avoidance of doubt:

(a) the Principal is not under any obligation whatsoever to exercise; and

(b) the Professional Services Contractor is not entitled to make, nor will the Principal be liable upon, any claim in respect of the Principal not exercising,

any Option.

Where the Principal does not exercise its discretion to exercise an Option, the Principal may, either by itself or by third parties, undertake the work contemplated by the relevant Option.

The exercise of an Option by the Principal's Representative under this clause 16.5 will not:

(c) relieve the Professional Services Contractor from its liabilities or obligations (including those arising out of any warranties given under this Agreement); or

(d) limit or otherwise affect the Principal's rights against the Professional Services Contractor or the Professional Services Contractor's rights against the Principal (including those arising out of any warranties given under this Agreement);

whether under this Agreement or otherwise according to any law.

Without limiting or otherwise restricting clause 18.11, the Professional Service Contractor acknowledges and agrees that the work completed by an Option may be directed as a separable Portion under clause 18.11.

17 PAYMENT OF FEE

17.1 Payment Claim issued by Professional Services Contractor

Subject to the Professional Services Contractor performing the Services, the Principal must pay the Professional Services Contractor:

(a) the Fee; and

(b) subject to the achievement of Completion of the relevant Portion, the Upper Limiting Fee Incentive Payment (if any) applicable to that Portion.

The Professional Services Contractor is deemed to have made an allowance in the Fee for all expenses and disbursements that may be suffered or incurred in the performance of the Services.

The Professional Services Contractor may prepare and submit to the Principal's Representative a payment claim for the amounts payable in accordance with this Agreement at the times set out in the Contract Particulars.

The Professional Services Contractor must, as a condition precedent to the Professional Services Contractor's right to payment under this Agreement:

(c) provide the Principal's Representative with a duly completed and signed statutory declaration and subcontractor's statement in the form contained in Schedule 3 (or in any other form requested and/or approved by the Principal's Representative);

(d) where clause 17.6(i) applies, provide the Principal's Representative with the statement and the evidence (if any) required to be provided by the Professional Services Contractor pursuant to that clause;

(e) provide the Principal's Representative with copies of, or certificates of currency for, its workers compensation, public liability, professional indemnity and any other insurances, which must be effected by the Professional Services Contractor under this Agreement;

(f) provide the Principal's Representative with a deed of guarantee and indemnity in the form of Schedule 6 duly executed by the entity named in the Contract Particulars which is required under clause 3.10; and

(g) provide the Principal's Representative with duly executed Confidentiality Deed Polls as required by clause 22.6.

The payment claim must contain a clear and comprehensive breakdown of that part of the Fee claimed by the Professional Services Contractor (including detailed calculations of each Provisional Portion Fee and each Portion Fee) and any other details required by the Principal. All payment claims must be addressed to the Principal and must refer to the Professional Services Contract No. on the cover page of this Agreement and the relevant "Services Order number" (as identified in the Proposal).

Payment claims on a time basis must be for the period up to the last calendar day of the month prior to the issue of the payment claim and accompanied by timesheets and a summary of the Services performed in the time period of the claim.

17.2 Payment Schedule of Fee issued by Principal

If the Principal intends making a payment that is less than the amount claimed by the Professional Services Contractor, the Principal must, within 10 Business Days following receipt of a payment claim give the Professional Services Contractor a payment schedule which sets out:

(a) the value of the Services completed in accordance with this Agreement;

(b) the amount already paid to the Professional Services Contractor;

(c) the amount that the Principal is entitled to retain, deduct, withhold or set-off under this Agreement;

(d) the amount (if any) which the Principal proposes to pay to the Professional Services Contractor;

(e) the reason why the amount under clause 17.2(d) is less than the amount claimed in the payment claim; and

(f) if the reason for the difference is that the Principal is retaining, deducting, withholding or setting-off payment for any reason, the reason for the Principal retaining, deducting, withholding or setting-off payment.

The failure of the Principal to set out in a payment schedule an amount which it is entitled to retain, deduct, withhold or set off under this Agreement will not prejudice its right to subsequently exercise such right.

17.3 Payments

The Principal must within 15 Business Days following receipt of a payment claim, pay the amount stated in the payment schedule or the amount claimed by the Professional Services Contractor in its payment claim (as the case may be).

The making of a payment by the Principal under this clause 17.3 is not evidence of the value of the Services performed, does not constitute an admission by the Principal that any Services provided by the Professional Services Contractor conform with the requirements of this Agreement and is a payment on account only.

The Professional Services Contractor acknowledges and agrees that:

(a) the Principal may, from time to time, either itself or via the Financial Auditor, carry out an audit and reconciliation of the Fee and the amounts paid to the Professional Services Contractor; and

(b) without limiting clause 17.6(d)(ii), the Professional Services Contractor must immediately repay to the Principal any amount paid to the Professional Services Contractor that exceeds its entitlements under this Agreement.

Where the Principal has notified the Professional Services Contractor in accordance with clause 25(f)(iv) that it no longer proposes to issue a recipient created tax invoice for a taxable supply made by the Professional Services Contractor for the Principal, the Professional Services Contractor must, within 2 Business Days after receipt of the payment schedule issued by the Principal's Representative under clause 17.2 give the Principal's Representative a tax invoice (which complies with the GST Law) for the amount of the payment schedule.

17.4 Not used

17.5 Set Off

The Principal may, at any time withhold, set-off or deduct from amounts otherwise payable (or which in the future may become payable or would, but for this clause 17.5, have otherwise become payable) to the Professional Services Contractor:

(c) any debt or other moneys due from the Professional Services Contractor to the Principal under this Agreement, the Standing Offer Deed or any Other PSC Contract or in respect of the Services or any Other PSC Contract Services, including any due debt from the Professional Services Contractor to the Principal pursuant to section 26C of the SOP Act;

(d) any amount that is less than or equal to the amount claimed to be owed under a payment withholding request served on the Principal pursuant to division 2A of the SOP Act in connection with this Agreement, the Standing Offer Deed, any Other PSC Contract, the Services or any Other PSC Contract Services;

(e) any amount payable (or which the Principal's Representative believes will in future become payable) by the Professional Services Contractor to the Principal in accordance with Schedule 5 of the Standing Offer Deed;

(f) in circumstances where the Professional Services Contractor has not satisfied any condition precedent to payment under this Agreement (including those set out in clause 17.1), the full amount that would otherwise have been payable by the Principal to the Professional Services Contractor in respect of the relevant payment claim; or

(g) any amount that the Principal is entitled to withhold, set-off or deduct in accordance with any law in connection with this Agreement, the Standing Offer Deed, any Other PSC Contract, the Services or any Other PSC Contract Services.

17.6 Security of Payment Act

(a) This clause applies if the SOP Act applies to the Services

(b) Not used.

(c) For the purposes of section 17(3)(b) of the SOP Act the Professional Services Contractor irrevocably chooses the Resolution Institute as the authorised nominating authority (as that term is defined in the SOP Act) for any adjudication application it may make under the SOP Act in respect of the subject matter of this Agreement.

(d) When an adjudication occurs under the SOP Act, and the Principal has paid an adjudicated amount to the Professional Services Contractor:

(i) the amount will be taken into account by the Principal in issuing a payment schedule under clause 17.2;

(ii) if it is subsequently determined pursuant to the Contract that the Professional Services Contractor was not entitled under the Contract to payment of some or all of the adjudicated amount that was paid by the Principal ("overpayment"), the overpayment will be a debt due and payable by the Professional Services Contractor to the Principal which the Professional Services Contractor must pay to the Principal upon demand and in respect of which the Professional Services Contractor is not entitled to claim or exercise any set-off, counterclaim, deduction or similar right of defence;

(iii) if the adjudicator's determination is quashed, overturned or declared to be void, the adjudicated amount then becomes a debt due and payable by the Professional Services Contractor to the Principal upon demand and in respect of which the Professional Services Contractor is not entitled to claim or exercise any set-off, counterclaim, deduction or similar right of defence;

(iv) the Principal:

A. is not bound by the adjudication determination;

B. may reassess the value of the work that was valued by the adjudicator; and

C. may, if it disagrees with the adjudication determination, express its own valuation in any payment statement; and

(v) the payment statement referred to in clause 17.6(d)(iv) will be treated as a final determination of the value of the relevant work, subject to the provisions of clause 19.

(e) Without limiting clause 17.5, the Principal may withhold any amount that is less than or equal to the amount claimed to be owed under a payment withholding request served on the Principal pursuant to division 2A of the SOP Act.

(f) If the Principal withholds from money otherwise due to the Professional Services Contractor any amount that is less than or equal to the amount claimed to be owed under a payment withholding request served on the Principal pursuant to division 2A of the SOP Act, then:

(i) the Principal may plead and rely upon division 2A of the SOP Act as a defence to any claim for the money by the Professional Services Contractor from the Principal; and

(ii) the period during which the Principal retains money due to the Professional Services Contractor pursuant to an obligation under division 2A of the SOP Act will not be taken into account for the purpose of determining:

A. any period for which money owed by the Principal to the Professional Services Contractor has been unpaid; and

B. the date by which payment of money owed by the Principal to the Professional Services Contractor must be made.

(g) The Professional Services Contractor agrees not to commence proceedings to recover any amount withheld by the Principal pursuant to a payment withholding request served on the Principal in accordance with division 2A of the SOP Act.

(h) Any amount paid by the Principal pursuant to section 26C of the SOP Act will be a debt due from the Professional Services Contractor to the Principal.

(i) If the Principal withholds money pursuant to a payment withholding request served on the Principal pursuant to division 2A of the SOP Act and the Professional Services Contractor:

(i) pays the amount claimed to be due under the adjudication application to which the payment withholding claim relates; or

(ii) becomes aware that the adjudication application to which the payment withholding claim relates has been withdrawn,

then the Professional Services Contractor must so notify the Principal within 5 days of the occurrence of the event under the clauses 17.6(i)(i) and 17.6(i)(ii) (as applicable) by providing to the Principal a statement in writing in the form of a statutory declaration together with such other evidence as the Principal may require evidencing that the amount has been paid or the adjudication application has been withdrawn (as the case may be).

17.7 Mitigation

The Professional Services Contractor must take all reasonable steps to mitigate any amounts that may be payable by the Principal to the Professional Services Contractor under this Agreement, including the Fee.

17.8 Upper Limiting Fee

(a) The Professional Services Contractor:

(i) must, prior to incurring any costs or otherwise taking any action (including the performance of any part of the Services) that would (or is likely to) result in the Provisional Portion Fee for any Portion exceeding the relevant Upper Limiting Fee, notify the Principal and obtain the Principal's written approval to proceed; and

(ii) will not be entitled to make, and the Principal will not be liable upon, any claim arising out of or in any way in connection with:

A. any costs incurred or action otherwise taken in contravention of clause 17.8(a)(i); or

B. the requirement to comply with clause 17.8(a)(i) or any failure by the Principal to issue, or delay by the Principal in issuing, any approval referred to in clause 17.8(a)(i), except for an extension of time in accordance with clause 18 for an event referred to in clause 18.3(f).

(b) The Principal may:

(i) at any time and for any reason in its absolute discretion, by written notice to the Professional Services Contractor increase any Upper Limiting Fee; or

(ii) where there is a change in "PSC Personnel" (as defined in the Standing Offer Deed), determine a reasonable decrease in each relevant Upper Limiting Fee in respect of that change.

18 TIME

18.1 Time for Commencement and programming

The Professional Services Contractor must immediately commence the performance of the Services.

Within 5 Business Days of the Commencement Date, the Professional Services Contractor must, without limiting or otherwise restricting clauses 12.2, 13 and 14, provide the Principal's Representative with a program acceptable to the Principal's Representative which contains such details as may be required by this Agreement. Thereafter the Professional Services Contractor must regularly revise the program at intervals acceptable to the Principal's Representative.

18.2 Date for Completion

The Professional Services Contractor must achieve Completion of the Services, or each Portion, by the relevant Date for Completion.

18.3 Extension of Time for Completion

If the Professional Services Contractor is or will be delayed:

(a) on or before the relevant Date for Completion, in reaching Completion of the Services or a Portion by the relevant Date for Completion; or

(b) after the relevant Date for Completion, in reaching Completion of the Services or a Portion,

by:

(c) an act or omission of the Principal or Principal's Representative that is not authorised under the Standing Offer Deed, this Agreement or any Other PSC Contract;

(d) a breach of this Agreement by the Principal;

(e) a Variation directed under clause 16.1 or a suspension directed under clause 18.10 where the Variation or suspension is not due to an act or omission of the Professional Services Contractor (or its employees, agents or Subcontractors);

(f) Sydney Trains altering the date of a Track Possession or Additional Track Possession less than 12 weeks prior to the date on which that Track Possession or Additional Track Possession was due to commence; or

(g) delay by the Principal in providing approval under clause 17.8(a)(i), but only to the extent such delay extends beyond 5 Business Days after the relevant request by the Professional Services Contractor for such approval,

the Professional Services Contractor may claim an extension of time to the relevant Date for Completion.

18.4 Claim for Extension of Time

To claim an extension of time, the Professional Services Contractor must submit a written claim to the Principal's Representative within 10 Business Days of the first occurrence of the event or circumstance causing the delay. This claim must include:

(a) details of the delay and the event or circumstance causing the delay;

(b) details of the activities that are critical to the maintenance of progress in the execution of the Services;

(c) a statement of the number of days extension of time claimed together with the basis of calculating that period; and

(d) any other information reasonably requested by the Principal's Representative.

If the effects of the delay continue beyond the period of 10 Business Days after the first occurrence of the event or circumstance causing the delay and the Professional Services Contractor wishes to claim extensions of time in respect of the further delays, the Professional Services Contractor must submit further written claims to the Principal's Representative at intervals not greater than 10 Business Days.

The Principal's Representative may, within 10 Business Days of receiving the Professional Services Contractor's claim or further claim for an extension of time to the relevant Date for Completion, by written notice to the Professional Services Contractor, request additional information in relation to the claim or further claim. The Professional Services Contractor must, within 10 Business Days of receiving such request, provide the Principal's Representative with the information requested.

Notwithstanding that the Professional Services Contractor is not entitled to an extension of time or has not made a claim for an extension of time the Principal's Representative may at any time by notice in writing to the Professional Services Contractor extend any Date for Completion for any reason.

The Principal's Representative is not required to exercise its discretion under the previous paragraph for the benefit of the Professional Services Contractor.

18.5 Conditions precedent to Extension of Time

It is a condition precedent to the Professional Services Contractor's entitlement to an extension of time to any relevant Date for Completion that:

(a) the Professional Services Contractor gives the claim required by clause 18.4 and as required by clause 18.4,

(b) the Professional Services Contractor complies with any request for additional information under clause 18.4 within the time required;

(c) the cause of the delay is beyond the reasonable control of the Professional Services Contractor; and

(d) the Professional Services Contractor is actually, or will be, delayed in the manner referred to in clause 18.3(a) or 18.3(b) (as applicable), by reason of one or more of the causes set out in clause 18.3.

If the Professional Services Contractor fails to comply with the conditions precedent in this clause 18.5:

(e) the Principal will not be liable upon any claim by the Professional Services Contractor; and

(f) the Professional Services Contractor will be absolutely barred from making any claim against the Principal,

arising out of or in any way in connection with the event giving rise to the delay and the delay involved.

18.6 Extension of time

Subject to clause 18.7, if the conditions precedent in clause 18.5 have been satisfied, the relevant Date for Completion will be extended by a reasonable period determined by the Principal's Representative, and notified to the Principal and the Professional Services Contractor within 28 days after the later of:

(a) the Professional Services Contractor's written claim under clause 18.4; and

(b) provision by the Professional Services Contractor of any additional information regarding the claim required under clause 18.4.

A failure of the Principal's Representative to grant a reasonable extension of time to any Date for Completion or to grant an extension of time to any Date for Completion within the relevant 28 day period will not cause an affected Date for Completion to be set at large or prejudice the right of the Principal or the Principal's Representative to subsequently extend any relevant Date for Completion, but nothing in this paragraph will prejudice any right of the Professional Services Contractor to damages.

18.7 Reduction in Extension of Time

The Principal's Representative will reduce any extension of time to the relevant Date for Completion it would otherwise have determined under clause 18.6 to the extent that the Professional Services Contractor:

(a) contributed to the cause of the delay or the delay; or

(b) failed to take all reasonably practicable steps necessary both to preclude the cause of the delay and to avoid or minimise the consequences of the delay.

18.8 Completion

(a) The Professional Services Contractor must notify the Principal's Representative in writing 5 Business Days prior to the date upon which the Professional Services Contractor anticipates that Completion of the Services or a Portion will be reached.

(b) The Principal's Representative will, within 5 Business Days after receipt of the notice referred to in clause 18.8(a), review the relevant Services the subject of that notice and thereafter issue a notice to the Principal and the Professional Services Contractor either:

(i) containing a list of the items that are apparent and it believes must be completed (including the correction of any Defects) before Completion of the Services or the Portion is achieved; or

(ii) stating that it believes the Professional Services Contractor is so far from achieving Completion of the Services or the Portion that it is not practicable to issue a list as contemplated in clause 18.8(b)(i).

(c) When the Principal's Representative issues a notice under either clause 18.8(b)(i) or clause 18.8(b)(ii), the Professional Services Contractor must continue to proceed to bring the Services or the Portion to Completion and thereafter when the Professional Services Contractor considers it has achieved Completion of the Services or the Portion, the Professional Services Contractor must notify the Principal's Representative. This notice must contain a Professional Services Contractor's Certificate of Completion.

(d) The Principal's Representative will, within 15 Business Days of receipt of a notice in writing under clause 18.8(c) or of receipt of a notice under clause 18.8(e), issue a notice to the Principal and the Professional Services Contractor:

(i) if satisfied that Completion of the Services or the Portion has been achieved, stating the date on which the Principal's Representative determines Completion of the Services or the Portion was achieved; or

(ii) if not satisfied that Completion of the Services or the Portion has been achieved:

A. containing a list of the items that are apparent and it believes must be completed (including the correction of any Defects) before Completion of the Services or the Portion is achieved; or

B. stating that it believes the Professional Services Contractor is so far from achieving Completion of the Services or the Portion that it is not practicable to issue a list as contemplated by clause 18.8(d)(ii)A.

(e) If the Principal's Representative issues a notice under either clause 18.8(d)(ii)A or clause 18.8(d)(ii)B, the Professional Services Contractor must continue to proceed to bring the Services or the Portion to Completion and thereafter when it considers it has achieved Completion of the Services or the Portion, the Professional Services Contractor must notify the Principal's Representative by notice in writing (by means of a Professional Services Contractor's Certificate of Completion), after which clause 18.8(d) and this clause 18.8(e) will reapply.

(f) Where there are Portions, for the purposes of this Agreement and without affecting the Professional Services Contractor's obligation to achieve Completion of each Portion by the relevant Date for Completion of each Portion:

(i) no separate Date for Completion of the Services is specified in this Agreement;

(ii) Completion of the Services is achieved by achieving Completion of all Portions;

(iii) Completion of the Services will be taken to have occurred once Completion of all Portions has occurred; and

(iv) the date of Completion of the Services will be taken to be the date of Completion of the last Portion to reach Completion.

18.9 Unilateral Issue of Notice of Completion

If at any time a notice required to be given by the Professional Services Contractor to the Principal's Representative under either of clause 18.8(c) or 18.8(e) is not given by the Professional Services Contractor yet the Principal's Representative is of the opinion that Completion of the Services or a Portion has been achieved, the Principal's Representative may at any time and for any reason in its absolute discretion issue a Notice of Completion under clause 18.8(d)(i) for the Services or the Portion.

The issue of a Notice of Completion will not:

(a) constitute approval of any work or other matter nor will it prejudice any claim by the Principal;

(b) constitute approval by the Principal or the Principal's Representative of the Professional Services Contractor's performance of its obligations under this Agreement;

(c) be taken as an admission or evidence that the Services complies with the requirements of this Agreement; or

(d) prejudice any rights or powers of the Principal or the Principal's Representative.

18.10 Suspension

(a) The Principal may, at any time by prior written notice to the Professional Services Contractor, suspend the carrying out of the Services or any part thereof.

(b) The Principal may, at any time after giving a notice in accordance with clause 18.10(a), give the Professional Services Contractor reasonable notice to recommence carrying out those Services so suspended.

(c) Without limiting or otherwise restricting clause 18.10(a), if the suspension under clause 18.10(a) arises as a result of the Professional Services Contractor's failure to carry out its obligations under clauses 3.8 to 3.9 or to otherwise fail to comply with its obligations in relation to engineering authorisation or ASA compliance in accordance with this Agreement, the Professional Services Contractor will not be entitled to make, and the Principal will not be liable upon, any claim arising out of, or in any way in connection with, the suspension.

18.11 Portions

Separable Portions (including new Portions) may be directed by the Principal's Representative (in the Principal's absolute discretion), who shall clearly identify for each, the:

(a) portion of the Services;

(b) Date for Completion (determined by the Principal's Representative acting reasonably); and

(c) Upper Limiting Fee (determined by the Principal's Representative acting reasonably).

19 DISPUTE RESOLUTION

19.1 Dispute Notice

If a difference or dispute (together called a "dispute") between the parties arises in connection with the subject matter of this Agreement then either party will give the other party written notice of a dispute by hand or by registered post which adequately identifies the details of the dispute ("Dispute Notice").

19.2 Negotiation

The Professional Services Contractor and the Principal must endeavour to resolve any dispute expeditiously by negotiation within 20 Business Days (or any other time period agreed by the parties in writing) after receipt of the Dispute Notice. At such negotiations each party must be represented by a person who has the authority to agree to such resolution. All aspects of the negotiation (except the fact that the negotiations took place) will be privileged.

19.3 Expert Determination

If a dispute between the Professional Services Contractor and the Principal is not resolved by negotiation within 20 Business Days (or any other time period agreed by the parties in writing) after receipt of the Dispute Notice ("Negotiation Period") then, subject to the parties' right to seek injunctive or urgent declaratory relief, and before either party has recourse to any litigation, the parties must submit the dispute to expert determination by an independent expert.

If the Professional Services Contractor and the Principal do not agree upon an independent expert within 10 Business Days of the end of the Negotiation Period then either party may request the Chair of the Resolution Institute to nominate an expert.

The parties must enter into an agreement with the agreed or nominated expert on the terms of the agreement in Schedule 10 or such other terms as the parties and the expert may agree.

Except where the parties otherwise agree in writing:

(a) each party must bear its own costs and pay one half of the expert's fees and expenses;

(b) the expert must not act as an arbitrator;

(c) the determination of the expert will be final and binding on the parties except where:

  (i) the expert's determination relating to a dispute is that one party shall pay to the other an amount, or carry out works to an amount, greater than the amount stated in the Contract Particulars, or if no amount is stated, greater than $500,000; and

  (ii) a party gives notice of appeal to the other party within 15 Business Days of the determination being given; and

(d) the determination is to be given effect to by the parties unless and until it is reversed, overturned or otherwise changed under the procedure in clause 19.4 below.

19.4 Litigation

If the determination of the expert is not final and binding on the parties, but without limiting clause 19.3(d), either party may commence litigation in relation to the dispute.

19.5 Continuation

Each party must continue to perform its obligations under this Agreement notwithstanding the existence of a dispute.

20 NOTICE OF BREACH

If the Professional Services Contractor is in breach of this Agreement, the Standing Offer Deed or any Other PSC Contract, then the Principal may give a written notice to the Professional Services Contractor stating:

(a) that it is a notice under this clause 20;

(b) the breach relied upon; and

(c) that the Principal will exercise a right under clause 21.1 unless the breach is remedied within the period set out in the notice, which must be no less than 10 Business Days.

21 TERMINATION OR TAKE OUT

21.1 Termination or Take Out for Breach or Financial Difficulty

The Principal may, without prejudice to any other right:

(a) take out of the Professional Services Contractor's hands the whole or part of the Services remaining to be completed (and reduce each relevant Upper Limiting Fee by an amount determined by the Independent Expert based on an assessment of the value of the Services (or relevant part of the Services) taken out of the hands of the Professional Services Contractor); or

(b) terminate this Agreement,

by notice in writing to the Professional Services Contractor from the date stated in the notice if:

(c) the Professional Services Contractor fails to remedy a breach of this Agreement within the time stated in a notice under clause 20; or

(d) an Event of Insolvency occurs to the Professional Services Contractor or the entity that executed the deed of guarantee and indemnity required under clause 3.10(a) whether or not there has been a breach of contract by the Professional Services Contractor.

If this Agreement is terminated pursuant to this clause 21.1 or clause 21.3, the parties' remedies, rights and liabilities will be the same as they would have been under the law governing this Agreement had the Professional Services Contractor repudiated this Agreement and the Principal elected to treat this Agreement as at an end and recover damages.

The Principal may (either itself or by engaging any third party) complete any Services taken out of the Professional Services Contractor's hands under this clause 21.1 or clause 21.3 and may:

(e) without payment of compensation to the Professional Services Contractor:

(i) take possession of documents (including Contract Material); and

(ii) contract with such of the Subcontractors or require the Professional Services Contractor to novate to the Principal or its nominee any or all subcontracts between the Professional Services Contractor and its Subcontractors,

as are reasonably required by the Principal to facilitate completion of the Services taken out; and

(f) direct the Professional Services Contractor to take any other action which the Principal requires concerning Services taken out.

When Services are taken out of the Professional Services Contractor's hands under this clause 21.1 or clause 21.3, the Principal's Representative must assess the cost thereby incurred, or which may be incurred, by the Principal in completing the relevant Services and, if such costs are greater than the amount which would have been payable by the Principal to the Professional Services Contractor under this Agreement if the relevant Services had been completed by the Professional Services Contractor, the difference shall be a debt due from the Professional Services Contractor to the Principal.

21.2 Termination or Take Out for Any Reason

(a) The Principal may:

(i) take out of the Professional Services Contractor's hands the whole or part of the Services remaining to be completed (and reduce each relevant Upper Limiting Fee by an amount determined by the Independent Expert based on an assessment of the value of the Services (or relevant part of the Services) taken out of the hands of the Professional Services Contractor); or

(ii) terminate this Agreement,

at any time for any reason, by written notice to the Professional Services Contractor.

(b) If the Principal terminates this Agreement pursuant to this clause 21.2, the Principal:

(i) may, in its absolute discretion, complete the uncompleted part of the Services itself or by engaging any third party; and

(ii) must pay to the Professional Services Contractor that part of the Fee referrable to the Services performed to the date of termination plus the direct costs reasonably incurred by the Professional Services Contractor as a result of the termination. Such payment will be a limitation upon the Principal's liability to the Professional Services Contractor in connection with the termination of this Agreement.

(c) If the Principal takes out of the Professional Services Contractor's hands the whole or part of the Services remaining to be completed pursuant to this clause 21.2, the Principal may, in its absolute discretion, complete the part of the Services taken out itself or by engaging any third party.

(d) If the Principal terminates this Agreement or takes out of the Professional Services Contractor's hands the whole of the Services remaining to be completed pursuant to this clause 21.2, the Professional Services Contractor must immediately hand over to the Principal all copies of any documents provided by the Principal to the Professional Services Contractor and all Contract Material (whether complete or not).

(e) This clause 21.2 survives the termination of this Agreement by the Principal under this clause 21.2.

21.3 Termination or Take Out for Termination or Take Out under another Contract

The Principal may, without prejudice to any other right:

(a) take out of the Professional Services Contractor's hands the whole or part of the Services remaining to be completed (and reduce each relevant Upper Limiting Fee by an amount determined by the Independent Expert based on an assessment of the value of the Services (or relevant part of the Services) taken out of the hands of the Professional Services Contractor); or

(b) terminate this Agreement,

by notice in writing to the Professional Services Contractor from the date stated in the notice if:

(c) the Standing Offer Deed is terminated by the Principal due to any breach by the Professional Services Contractor of the Standing Offer Deed, this Agreement or any Other PSC Contract; or

(d) the Principal exercises a right under clause 21.1 of any Other PSC Contract to:

(i) take out of the Professional Services Contractor's hands the whole or part of the "Services" remaining to be completed under that Other PSC Contract; or

(ii) terminate that Other PSC Contract.

If the Principal exercises a right pursuant to this clause 21.3, the parties' remedies, rights and liabilities will be the same as they would have been had the Principal exercised the right under clause 21.1 to take the whole or part of the Services out of the Professional Services Contractor's hands or terminate this Agreement.

22 CONFIDENTIALITY

22.1 Acknowledgement

The Professional Services Contractor acknowledges that all of the Confidential Information is and will be the sole and exclusive property of the Principal.

22.2 Warranty and Covenant

(a) The Professional Services Contractor warrants and covenants that it will treat and keep the Confidential Information in the strictest of confidentiality and expressly acknowledges and agrees that the Confidential Information is of a confidential nature.

(b) The Professional Services Contractor warrants and covenants that it will do everything reasonably necessary to protect and maintain the confidentiality of the Confidential Information.

(c) The Professional Services Contractor may not disclose to any person other than:

(i) the Principal; or

(ii) a person who has signed a Confidentiality Deed Poll in the form of Schedule 2 in favour of the Principal,

that the Confidential Information has been made available to the Professional Services Contractor or that discussions or negotiations are taking place concerning this Agreement, and undertakes:

(iii) to protect and safeguard Confidential Information against unauthorised publication or disclosure; and

(iv) not to use Confidential Information for any reason or purpose except as directed by the Principal; and

(v) to comply with any security measures in connection with Confidential Information that may be required by the Principal.

22.3 Personal Information

Without limiting any obligation that the Professional Services Contractor has under any applicable privacy laws, where the Professional Services Contractor has access to Personal Information in order to fulfil its obligations under this Agreement, it must where collecting Personal Information on behalf of the Principal, comply with the *Privacy and Personal Information Protection Act 1998* (NSW) as if it were the Principal.

22.4 Authorised Disclosure

If the Principal's Representative approves in writing the disclosure of Confidential Information, the Professional Services Contractor may disclose that Confidential Information in accordance with the terms of that approval.

22.5 Return of Confidential Information

If the Principal requests it, the Professional Services Contractor must:

(a) promptly return to the Principal all documents and other physical records of Confidential Information in its possession, custody, power or control;

(b) if any Confidential Information in the possession, custody, power or control of the Professional Services Contractor is in a form that cannot be detached from valuable equipment (including, but not limited to, Confidential Information stored by electronic, electromagnetic or other means), the Professional Services Contractor must permanently delete and erase the Confidential Information; and

(c) provide a statutory declaration to the Principal confirming that all those records and any copies have been returned or deleted and erased, as appropriate.

Notwithstanding this clause 22.5 or any other provision of this Agreement, the Principal authorises the Professional Services Contractor to retain for record purposes one copy of material provided to the Professional Services Contractor by the Principal and one copy of the Contract Material. The Professional Services Contractor must treat all material retained under this provision as Confidential Information.

22.6 Confidentiality Deed Poll

Unless otherwise agreed, the Professional Services Contractor must procure each officer, employee, Subcontractor, or agent of the Professional Services Contractor involved in the performance of the Services including all Key People to sign and deliver to the Principal a Confidentiality Deed Poll in the form of Schedule 2.

22.7 Obligations To Continue

The obligations of the Professional Services Contractor under this clause 22 survive completion of the Services or termination of this Agreement and are enforceable at any time at law or in equity and continue to the benefit of and are enforceable by the Principal.

22.8 Injunctive Relief

In the event of a breach by the Professional Services Contractor of the Professional Services Contractor's obligations under this clause 22, then in addition to, and without prejudice to, any other remedy that the Principal may have, the Principal will be entitled to seek and obtain injunctive relief in any court of competent jurisdiction.

22.9 Further Assurances

The Professional Services Contractor must do all things and execute all documents, including, but not limited to, executing any agreements of assignment, or agreements under hand or seal, which may reasonably be required by the Principal, to give effect to the provisions of this Agreement.

23 DISCLOSURE OF CONTRACT INFORMATION

The Professional Services Contractor acknowledges that the Principal may disclose this Agreement (and information concerning the terms of this Agreement) under or in accordance with any one or more of the following:

(a) the *Government Information (Public Access) Act 2009* (NSW);

(b) the *Ombudsman Act 1974* (NSW); and

(c) to satisfy the disclosure requirements of the New South Wales Auditor General or to satisfy the requirements of parliamentary accountability.

24 GOVERNING LAW

This Agreement is subject to the laws of the State of New South Wales.

25 GST

The Principal and the Professional Services Contractor agree:

(a) unless otherwise stated all dollar amounts referred to in this Agreement are GST exclusive;

(b) if GST is or becomes payable on a supply made by a party ("Supplier") under or in connection with this Agreement, including the Services, the party providing the consideration for the supply ("Recipient") must pay an additional amount to the Supplier equal to the GST payable by the Supplier (or representative member of a GST group of which the Supplier is a member) in relation to the supply;

(c) any amount payable under clause 25(b) will be paid to the Supplier at the same time as the consideration for the supply is paid to the Supplier.

(d) if any party is required under this Agreement to reimburse or pay to the other party an amount (other than any payment on account of the Fee) calculated by reference to a cost, expense, or an amount paid or incurred by that party, the amount of the reimbursement or payment will be reduced by the amount of any input tax credits to which that party (or representative member of a GST group of which that party is a member) is entitled in respect of any acquisition relating to that cost, expense or other amount.

(e) notwithstanding any other provision of this Agreement, where the Recipient is the Professional Services Contractor, it will not be obliged to pay any amount in respect of GST to the Principal (whether under this clause 25 or otherwise) in respect of a taxable supply made by the Principal unless the Principal issues to the Professional Services Contractor a tax invoice that complies with the GST Law in respect of that taxable supply;

(f) the parties agree that unless otherwise agreed in writing, the following will apply to all taxable supplies made by the Professional Services Contractor to the Principal under or in connection with this Agreement:

(i) the Principal will issue to the Professional Services Contractor a recipient created tax invoice ("RCTI") for each taxable supply made by the Professional Services Contractor to the Principal under this Agreement;

(ii) the Principal will issue to the Professional Services Contractor an adjustment note for any adjustment event;

(iii) the Professional Services Contractor will not issue a tax invoice in respect of any taxable supply it makes to the Principal; and

(iv) the Principal may notify the Professional Services Contractor that it will no longer issue a RCTI for each taxable supply made by the Professional Services Contractor under this Agreement, in which case, from that point in time, the Principal will not be required to issue RCTIs in respect of such supplies and the Professional Services Contractor will be required to issue tax invoices to the Principal (including under clause 17.3) as a condition precedent to the Principal being obliged to pay any amount in respect of GST to the Professional Services Contractor in respect of any such taxable supply.

(g) each party acknowledges and warrants that at the time of entering into this Agreement it is registered for GST and will notify the other party if it ceases to be registered for GST or ceases to comply with any of the requirements of any taxation ruling issued by a taxation authority relating to the creation of RCTIs;

(h) if the GST payable in relation to a supply made by the Supplier under this Agreement varies from the additional amount paid by the other party under this clause 25 in respect of that supply, then the Supplier will provide a corresponding refund or credit to or will be entitled to receive the amount of that variation from the other party (as appropriate);

(i) the Professional Services Contractor must ensure that each insurance policy referred to in clause 10 covers any liability to GST such that the proceeds of any claim under the policy (after payment of GST) are sufficient to fully indemnify the party who suffers the loss that is claimed; and

(j) in clauses 17.3 and 25:

(i) "GST" means the tax payable on taxable supplies under GST Law;

(ii) "GST Law" means the *A New Tax System (Goods & Services Tax) Act 1999* (Cth) and any related Act imposing such tax or legislation that is enacted to validate, recapture or recoup such tax; and

(iii) terms which are defined in GST Law have the meaning provided by GST Law.

Subject to clauses 25(a) to 25(i) (inclusive), the Professional Services Contractor must pay all taxes, duties, levies, imposts and charges which may be payable arising out of or in any way in connection with the Services.

26 LIMITATION OF LIABILITY

(a) Subject to clauses 26(b) and 26(c), the Professional Services Contractor'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 Professional Services Contractor'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 Professional Services Contractor.

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

(i) to the extent to which the Professional Services Contractor is (or will be) entitled to be indemnified pursuant to an insurance policy in respect of that liability pursuant to an insurance policy which is required to be effected in accordance with this Agreement;

(ii) for which, but for a failure by the Professional Services Contractor to comply with its obligations under this Agreement or under an insurance policy, the Professional Services Contractor would have received payment or been indemnified under an insurance policy required to be effected in accordance with this Agreement;

(iii) which arises from any fraud, wilful misconduct or criminal conduct by the Professional Services Contractor or any of its employees, servants or agents including the Key People;

(iv) which arises from the infringement of Intellectual Property Rights or moral rights; or

(v) under, or in connection with, the Standing Offer Deed or any Other PSC Contract.

(d) This clause 26 survives termination of the Agreement

26A ECONOMIC OR CONSEQUENTIAL LOSS

(a) Without limiting or otherwise restricting clauses 26.6(b) and (c), the Professional Services Contractor will have no liability whatsoever to the Principal for loss of use, production, profit, revenue, data, contract or anticipated saving or for any financing costs or increase in operating costs.

(b) Without limiting or otherwise restricting any other provision of this Agreement, the Principal will have no liability whatsoever to the Professional Services Contractor for loss of use, production, profit, revenue, data, contract or anticipated saving or for any financing costs or increase in operating costs.

27 NO WAIVER

Failure by the Principal to enforce or compel performance of any term or condition of this Agreement does not constitute a waiver of that term or condition and does not impair the right of the Principal to enforce it at a later time or to pursue remedies it may have for any subsequent breach of that term or condition.

28 RETURN OF DOCUMENTS

On completion of the Services or upon the termination of this Agreement, the Professional Services Contractor must deliver to the Principal:

(a) all Contract Material produced by the Professional Services Contractor regardless of its stage of completion; and

(b) the Principal's documents, samples, patterns, moulds and other information provided to the Professional Services Contractor in carrying out those Services.

29 ENTIRE AGREEMENT

To the extent permitted by law, in relation to its subject matter, this Agreement:

(a) embodies the entire understanding of the parties, and constitutes the entire terms agreed by the parties; and

(b) supersedes any prior written or other agreement of the parties.

30 PROPORTIONATE LIABILITY

(a) To the extent permitted by law, part 4 of the *Civil Liability Act 2002* (NSW) (and any equivalent statutory provision in any other state or territory) is excluded in relation to all and any rights, obligations or liabilities of either party under this Agreement whether such rights, obligations or liabilities are sought to be enforced in contract, tort or otherwise.

Without limiting the above, the rights, obligations and liabilities of the Professional Services Contractor and the Principal under this Agreement with respect to proportionate liability are as specified in this Agreement and not otherwise, whether such rights, obligations or liabilities are sought to be enforced by a claim in contract, in tort or otherwise.

(b) To the extent permitted by law:

(i) the Professional Services Contractor must not seek to apply the provisions of part 4 of the *Civil Liability Act 2002* (NSW) in relation to any claim by the Principal against the Professional Services Contractor (whether in contract, tort or otherwise); and

(ii) if any of the provisions of part 4 of the *Civil Liability Act 2002* (NSW) are applied to any claim by the Principal against the Professional Services Contractor (whether in contract, tort or otherwise), the Professional Services Contractor will indemnify the Principal against any loss, damage, cost or expense which the Principal is not able to recover from the Professional Services Contractor because of the operation of part 4 of the *Civil Liability Act 2002* (NSW).

31 SEVERABILITY

If at any time a provision of this Agreement is or becomes illegal, invalid or unenforceable in any respect under the law of any jurisdiction that will not affect or impair:

(a) the legality, validity or enforceability in that jurisdiction of any other provision of this Agreement; or

(b) the legality, validity or enforceability under the law of any other jurisdiction of that or any other provision of this Agreement.

32 ASSIGNMENT AND NOVATION

(a) The Professional Services Contractor must not assign, transfer or novate any of its rights, interests or obligations in this Agreement without the prior written consent of the Principal and except on such terms as are determined in writing by the Principal.

(b) The Principal may, for its sole convenience and at its absolute discretion, assign, novate or otherwise deal with its rights and obligations without the Professional Services Contractor's consent to any other Authority. The Professional Services Contractor must execute any document reasonably required to give effect to the assignment, novation or other dealing.

33 NOT USED

34 NSW CODE AND NSW GUIDELINES

34.1 Introduction

In addition to terms defined in this document, terms used in this clause 34 have the same meaning as is attributed to them in the Implementation Guidelines to the New South Wales Code of Practice for Procurement: Building and Construction (NSW Guidelines) (as published by the NSW Treasury July 2013). The NSW Code and NSW Guidelines are available at www.industrialrelations.nsw.gov.au .

34.2 Primary Obligation

The Professional Services Contractor must at all times comply with, and meet any obligations imposed by, the NSW Government's Code of Practice for Procurement (**NSW Code**) and NSW Guidelines.

The Professional Services Contractor must notify the CCU and the Principal of any possible non-compliance with the NSW Code and NSW Guidelines and of remedial action taken, within 24 hours of becoming aware of the possible non-compliance.

Where the Professional Services Contractor engages a Subcontractor, the Professional Services Contractor must ensure that the contract imposes on the Subcontractor equivalent obligations to those in this clause 34 (under the heading NSW Code and NSW Guidelines), including that the Subcontractor must at all times comply with, and meet any obligations imposed by, the NSW Code and the NSW Guidelines.

The Professional Services Contractor must not appoint or engage another party in relation to the project where that appointment or engagement would breach a sanction imposed on the other party in relation to the NSW Code or NSW Guidelines.

34.3 Access and information

The Professional Services Contractor must maintain adequate records of compliance with the NSW Code and NSW Guidelines by it, its Subcontractors and related entities.

The Professional Services Contractor must allow, and take reasonable steps to facilitate, authorised personnel (including personnel of the CCU) to:

(a) enter and have access to sites and premises controlled by the Professional Services Contractor, including but not limited to the project site;

(b) inspect any work, material, machinery, appliance, article or facility;

(c) access information and documents;

(d) inspect and copy any record relevant to the project;

(e) have access to personnel; and

(f) interview any person,

as is necessary for the authorised personnel to monitor and investigate compliance with the NSW Code and NSW Guidelines, by the Professional Services Contractor, its Subcontractors and related entities.

The Professional Services Contractor, and its related entities, must agree to, and comply with, a request from authorised personnel (including personnel of the CCU) for the production of specified documents by a certain date, whether in person, by post or electronic means.

34.4 Sanctions

The Professional Services Contractor warrants that at the time of entering into this Agreement, neither it, nor any of its related entities, are subject to a sanction in connection with the NSW Code or NSW Guidelines that would have precluded it from responding to a procurement process for work to which the NSW Code and NSW Guidelines apply.

If the Professional Services Contractor does not comply with, or fails to meet any obligation imposed by, the NSW Code or NSW Guidelines, a sanction may be imposed against it in connection with the NSW Code or NSW Guidelines.

Where a sanction is imposed:

(a) it is without prejudice to any rights that would otherwise accrue to the parties; and

(b) the State of NSW (through its agencies, Ministers and the CCU) is entitled to:

(i) record and disclose details of non-compliance with the NSW Code or NSW Guidelines and the sanction; and

(ii) take them into account in the evaluation of future procurement processes and responses that may be submitted by the Professional Services Contractor, or its related entities, in respect of work to which the NSW Code and NSW Guidelines apply.

34.5 Compliance

The Professional Services Contractor bears the cost of ensuring its compliance with the NSW Code and NSW Guidelines, including in respect of any positive steps it is obliged to take to meet its obligations under the NSW Guidelines. The Professional Services Contractor is not entitled to make a claim for reimbursement or an extension of time from the Principal or the State of NSW for such costs.

Compliance with the NSW Code and NSW Guidelines does not relieve the Professional Services Contractor from responsibility to perform the Services and any other obligation under this Agreement, or from liability for any Defect in the works or from any other legal liability, whether or not arising from its compliance with the NSW Code and NSW Guidelines.

Where a change in this Agreement or Services is proposed, and that change may, or may be likely to, affect compliance with the NSW Code and NSW Guidelines, the Professional Services Contractor must immediately notify the Principal (or nominee) of the change, or likely change and specify:

(a) the circumstances of the proposed change;

(b) the extent to which compliance with the NSW Code and NSW Guidelines will be, or is likely to be, affected by the change; and

(c) what steps the Professional Services Contractor proposes to take to mitigate any adverse impact of the change (including any amendments it proposes to a Workplace Relations Management Plan or Project Work Health and Safety Management Plan); and

the Principal will direct the Professional Services Contractor as to the course it must adopt within 10 Business Days of receiving notice.

35 NOTICES

35.1 Notices

A notice to be given by a party under this Agreement will be deemed to have been given and received:

(a) if addressed or delivered to the relevant address (including electronic mail address) in this Agreement or as last communicated in writing to the person giving the notice; and

(b) on the earliest date of:

(i) actual receipt;

(ii) in the case of electronic mail, the date of receipt of an "electronic communication" that would be determined if section 13A of the *Electronic Transactions Act 2000* (NSW) were to apply in respect of the electronic mail; or

(iii) in the case of delivery by:

A. regular prepaid post or registered post, 6 Business Days after the date of posting;

B. priority prepaid post or priority registered post, 4 Business Days after the date of posting; and

C. using express post, 2 Business Days after the date of posting,

provided that any notice personally delivered or sent electronically after 5.00 pm on any working day will be deemed to have been validly delivered at 9.00 am on the next working day.

35.2 Address for service

Any notices contemplated by this Agreement must be in writing and delivered to the relevant address or sent to the electronic mail address shown below (or to a party's new address or electronic mail address which that party notifies to the other party):

(a) to the Principal:

Address: Level 5 Tower A Zenith Centre 821 Pacific Highway
Chatswood NSW 2067

Electronic mail: Nicola.Rae@transport.nsw.gov.au

Attention: Nicola Rae

(b) to the Professional Services Contractor:

Address: Level 10, 383 Kent Street, Sydney NSW 2000

Electronic mail: [redacted]

Attention: [redacted]

A notice sent by electronic mail will be deemed to be in writing for the purposes of this clause.

36 TRACK POSSESSIONS

(a) The table in Schedule 5 identifies the Track Possessions currently available as at the date of this Agreement.

(b) The Principal will liaise with Sydney Trains to procure the Track Possessions set out in Schedule 5.

(c) The Professional Services Contractor acknowledges that it will not have exclusive access to any Railway Track the subject of a Track Possession and must:

(i) coordinate its activities (including the Services) with whoever else is sharing the relevant Track Possession; and

(ii) allow Sydney Trains, NSW Trains and other contractors to pass through any Railway Track the subject of the relevant Track Possession.

(d) If the Professional Services Contractor requires a Track Possession in addition to the Track Possessions identified in the table in Schedule 5 for the performance of the Services (**Additional Track Possession**) and desires the Principal to liaise with Sydney Trains in this regard, it must provide a written request to the Principal with no less than:

(i) 26 weeks prior notice in respect of each Additional Track Possession that falls on a weekend; or

(ii) 20 weeks prior notice in respect of each Additional Track Possession that falls on a weeknight.

(e) Following receipt of a request under clause 36(d), the Principal may assist the Professional Services Contractor to obtain the requested Additional Track Possession, but is under no obligation to do so and in no way guarantees that the requested Additional Track Possession will be granted by Sydney Trains.

(f) If an Additional Track Possession is granted by Sydney Trains, the Professional Services Contractor:

(i) must make the necessary arrangements for the Additional Track Possession in accordance with this Agreement; and

(g) The Professional Services Contractor must effectively and efficiently utilise each Track Possession.

(h) The Professional Services Contractor acknowledges and agrees that:

(i) Sydney Trains may alter or cancel any Track Possession or Additional Track Possession at any time; and

(ii) will not be entitled to make, and the Principal will not be liable upon, any claim arising out of or in any way in connection with, any alteration or cancellation of any Track Possession or Additional Track Possession, except for an extension of time in accordance with clause 18 for an event referred to in clause 18.3(f).

SCHEDULE 1 – CONTRACT PARTICULARS

Principal:	**Transport for NSW** ABN 18 804 239 602 Address: Level 5, Zenith Centre, Tower A 821 Pacific Highway Chatswood NSW 2067 Tel: 02 9200 0200
Professional Services Contractor:	**Mott MacDonald Australia Pty Limited (ABN 13 134 120 353)** **and** **SMEC Australia Pty Limited (ABN 47 065 475 149),** **trading as** **Mott MacDonald Australia Pty Limited & SMEC Australia Pty Limited** ABN 50 780 189 689 Address: 22 King William Street, Adelaide SA 5000 Tel: 0409 329 525
Commencement Date: (clause 1)	Date of Execution of the Contract
Completion requirements: (clause 1)	As per Services Order.
Confidential Information: (clause 1)	As per Services Order
Other Documents: (clause 1.1, refer to "Agreement").	As per Services Order.
Financial Auditor: (clause 1)	TBA
Upper Limiting Fee: (clause 1)	As per Services Order
Portions (clause 1)	As per Services Order
Project: (clause 1)	Technical Advisor More Trains More Services program (MTMS).
Provisional Portion Fee (percentage mark-up): (clause 1, paragraph (b)(ii))	[redacted]

Services: (clause 1)	As per Services Order
Entity to provide deed of guarantee and indemnity: (clause 3.10(a))	Mott MacDonald International Limited Registered No. 2064414 Registered Office Mott MacDonald House 8-10 Sydenham Road Croydon, Surrey CR0 2EE SMEC Holdings Limited Registered No. ACN 057 274 049 Registered Office Level 5, 20 Berry St, North Sydney 2060
Date for Completion: (clause 18.2)	In accordance with Clause 2 of the Standing Offer Deed
Time period for provision of the Safety Report: (clause 3.2)	As per Services Order.
Required Level of Professional Indemnity Insurance: (clause 10.1)	[redacted] per occurrence and in the aggregate
Time for maintaining Professional Indemnity Insurance: (clause 10.1)	6 years
Required Level of Public Liability Insurance: (clause 10.2)	[redacted] per occurrence
Professional Services Contractor's Representative: (clause 11.1)	As per Services Order
Key People: (clause 11.2)	In accordance with Schedule 3 of Standing Offer Deed
Principal's Representative: (clause 11.3)	Nicola Rae, A/Director Program Development & Management Rail Program Delivery
Hourly rates for the valuation of Variations: (clause 16.3)	In accordance with Schedule 2 of Standing Offer Deed

Times for Payment Claims: (clause 17.1)	Claims to cover period up to last calendar day of the previous month and to be submitted by the fifth Business Day of the month
Times for provision of documents: (clause 17.1)	In respect of: (a) clause 17.1(c), with each payment claim and when otherwise requested by the Principal's Representative; (b) clause 17.1(d), when required by clause 17.6(i); and (c) clause 17.1(e), when required by clause 10.4(a).
Expert Determination final and binding amount: (clause 19.3(c))	As per Services Order
Limit of Professional Services Contractor's Liability: (clause 26)	As per Services Order

SCHEDULE 2 – CONFIDENTIALITY DEED POLL

Professional Services Contract Number: ISD-18-7725

Professional Services Contractor: Mott MacDonald Australia Pty Limited & SMEC Australia Pty Limited

("Professional Services Contractor")

Confidentiality Deed Poll made at L10, 383 Kent St , Sydney **on:** 09/ 07/ 2019

By:

Name: [redacted]

Address: L10, 383 Kent St, Sydney 2000

("Recipient")

In favour of:

Transport for NSW

("Principal")

Background

The Principal and the Professional Services Contractor entered into the Professional Services Contract numbered above ("**Professional Services Contract**"), in which the Professional Services Contractor agreed to perform certain services.

It is a requirement of the Professional Services Contract that the Professional Services Contractor procures such of its officers, employees, subcontractors and agents as are required by the Principal to sign an individual confidentiality deed poll.

The Professional Services Contractor has requested and the Recipient has agreed, to execute this deed poll.

Confidential Information

1. *Confidential Information* is:

   (a) any information (including, without limitation, information contained in proposals, designs, tenders, reports, advices, minutes of meetings or correspondence) in any form which has come to the knowledge of the Recipient by any means and which has been or will be given to the Recipient either directly or indirectly by the Principal or by a person on behalf of the Principal or by a proponent or tenderer; and

   (b) any material produced by the Professional Services Contractor or the Recipient under the Professional Services Contract,

   but does not include:

   (c) information which, at the time of disclosure, was already in the public domain;

   (d) information which, subsequent to disclosure, enters the public domain except through breach of this deed poll or any other obligation of confidence; or

   (e) information which the Recipient is required to disclose by law or the listing rules of the Australian Securities Exchange.

   In the event of uncertainty as to whether:

   (a) any information is Confidential Information; or

   (b) any information is lawfully within the public domain,

that information is taken to be Confidential Information and the Confidential Information is taken to be not within the public domain, unless the Recipient is informed by the Principal in writing to the contrary.

Warranty and covenant

2. The Recipient warrants and covenants that it will treat and keep the Confidential Information in the strictest of secrecy and confidentiality and expressly acknowledges and agrees that the Confidential Information is of a secret and confidential nature.

3. The Recipient warrants and covenants that it will do everything reasonably necessary to protect and maintain the confidentiality of the Confidential Information.

4. The Recipient may not disclose to any person other than:

   (a) the Principal; and

   (b) a person who has signed a Confidentiality Deed Poll in the form of this document in favour of the Principal pursuant to the Professional Services Contract,

   that the Confidential Information has been made available to the Recipient or that discussions or negotiations are taking place concerning the Professional Services Contract.

5. The Recipient undertakes:

   (a) to protect and safeguard Confidential Information against unauthorised publication or disclosure;

   (b) not to use Confidential Information for any reason or purpose except as directed by the Principal; and

   (c) to comply with any security measures in connection with Confidential Information that may be required by the Principal.

Authorised disclosure

6. If the Principal approves in writing the disclosure of Confidential Information, the Recipient may disclose that Confidential Information in accordance with the terms of that approval.

Return of Confidential Information

7. If the Principal requests it, the Recipient must:

   (a) except as allowed under clause 22 of the Professional Services Contract, promptly return to the Principal all documents and other physical records of Confidential Information in its possession, custody, power or control;

   (b) if any Confidential Information in the possession, custody, power or control of the Recipient is in a form that cannot be detached from valuable equipment (including, but not limited to, Confidential Information stored by electronic, electromagnetic or other means), permanently delete and erase the Confidential Information; and

   (c) provide a statutory declaration to the Principal confirming that all those records and any copies have been returned or deleted and erased, as appropriate.

Continuing obligation

8. The obligations of the Recipient under this deed poll continue after the completion or termination of:

   (a) the Professional Services Contract; and

   (b) the Recipient's employment, engagement or assignment with the Professional Services Contractor.

Injunctive relief

9. In the event of a breach by the Recipient of the Recipient's obligations under this deed poll, then in addition to, and without prejudice to, any other remedy that the Principal may have, the Principal will be entitled to seek and obtain injunctive relief in any court of competent jurisdiction.

Further assurances

10. The Recipient must do all things and execute all documents, including but not limited to executing any agreements of assignment, or agreements under hand or seal, which may be required by the Principal to give effect to the provisions of this Confidentiality Deed Poll at a later date.

Non-waiver

11. The failure of the Principal to enforce any of the provisions of this deed poll or the granting at any time of any other indulgence is not to be construed as a waiver of that provision or of the right of the Principal to enforce that or any other provision at a later date.

Jurisdiction

12. This deed poll is governed by and subject to the laws of New South Wales.

No revocation

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

Executed as a Deed Poll
by the Recipient:

[redacted]

Recipient

[redacted]

Name (please print)

in the presence of:

[redacted]

Witness

[redacted]

Name (please print)

SCHEDULE 2 – CONFIDENTIALITY DEED POLL

Professional Services Contract Number: ISD-18-7725

Professional Services Contractor: Mott MacDonald Australia Pty Limited & SMEC Australia Pty Limited

("Professional Services Contractor")

Confidentiality Deed Poll made at 20 BERRY STREET **on:** 9/7/19

By:

Name: [redacted]

Address: LEVEL 5, 20 BERRY STREET, NORTH SYDNEY, NSW, 2060

("Recipient")

In favour of:

Transport for NSW

("Principal")

Background

The Principal and the Professional Services Contractor entered into the Professional Services Contract numbered above (**"Professional Services Contract"**), in which the Professional Services Contractor agreed to perform certain services.

It is a requirement of the Professional Services Contract that the Professional Services Contractor procures such of its officers, employees, subcontractors and agents as are required by the Principal to sign an individual confidentiality deed poll.

The Professional Services Contractor has requested and the Recipient has agreed, to execute this deed poll.

Confidential Information

1. *Confidential Information* is:

   (a) any information (including, without limitation, information contained in proposals, designs, tenders, reports, advices, minutes of meetings or correspondence) in any form which has come to the knowledge of the Recipient by any means and which has been or will be given to the Recipient either directly or indirectly by the Principal or by a person on behalf of the Principal or by a proponent or tenderer; and

   (b) any material produced by the Professional Services Contractor or the Recipient under the Professional Services Contract,

   but does not include:

   (c) information which, at the time of disclosure, was already in the public domain;

   (d) information which, subsequent to disclosure, enters the public domain except through breach of this deed poll or any other obligation of confidence; or

   (e) information which the Recipient is required to disclose by law or the listing rules of the Australian Securities Exchange.

   In the event of uncertainty as to whether:

   (a) any information is Confidential Information; or

   (b) any information is lawfully within the public domain,

that information is taken to be Confidential Information and the Confidential Information is taken to be not within the public domain, unless the Recipient is informed by the Principal in writing to the contrary.

Warranty and covenant

2. The Recipient warrants and covenants that it will treat and keep the Confidential Information in the strictest of secrecy and confidentiality and expressly acknowledges and agrees that the Confidential Information is of a secret and confidential nature.

3. The Recipient warrants and covenants that it will do everything reasonably necessary to protect and maintain the confidentiality of the Confidential Information.

4. The Recipient may not disclose to any person other than:

   (a) the Principal; and

   (b) a person who has signed a Confidentiality Deed Poll in the form of this document in favour of the Principal pursuant to the Professional Services Contract,

   that the Confidential Information has been made available to the Recipient or that discussions or negotiations are taking place concerning the Professional Services Contract.

5. The Recipient undertakes:

   (a) to protect and safeguard Confidential Information against unauthorised publication or disclosure;

   (b) not to use Confidential Information for any reason or purpose except as directed by the Principal; and

   (c) to comply with any security measures in connection with Confidential Information that may be required by the Principal.

Authorised disclosure

6. If the Principal approves in writing the disclosure of Confidential Information, the Recipient may disclose that Confidential Information in accordance with the terms of that approval.

Return of Confidential Information

7. If the Principal requests it, the Recipient must:

   (a) except as allowed under clause 22 of the Professional Services Contract, promptly return to the Principal all documents and other physical records of Confidential Information in its possession, custody, power or control;

   (b) if any Confidential Information in the possession, custody, power or control of the Recipient is in a form that cannot be detached from valuable equipment (including, but not limited to, Confidential Information stored by electronic, electromagnetic or other means), permanently delete and erase the Confidential Information; and

   (c) provide a statutory declaration to the Principal confirming that all those records and any copies have been returned or deleted and erased, as appropriate.

Continuing obligation

8. The obligations of the Recipient under this deed poll continue after the completion or termination of:

   (a) the Professional Services Contract; and

   (b) the Recipient's employment, engagement or assignment with the Professional Services Contractor.

Injunctive relief

9. In the event of a breach by the Recipient of the Recipient's obligations under this deed poll, then in addition to, and without prejudice to, any other remedy that the Principal may have, the Principal will be entitled to seek and obtain injunctive relief in any court of competent jurisdiction.

Further assurances

10. The Recipient must do all things and execute all documents, including but not limited to executing any agreements of assignment, or agreements under hand or seal, which may be required by the Principal to give effect to the provisions of this Confidentiality Deed Poll at a later date.

Non-waiver

11. The failure of the Principal to enforce any of the provisions of this deed poll or the granting at any time of any other indulgence is not to be construed as a waiver of that provision or of the right of the Principal to enforce that or any other provision at a later date.

Jurisdiction

12. This deed poll is governed by and subject to the laws of New South Wales.

No revocation

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

Executed as a Deed Poll
by the Recipient:

[redacted]

Recipient

[redacted]

Name (please print)

in the presence of:

[redacted]

Witness

[redacted]

Name (please print)

SCHEDULE 3 – FORM OF STATUTORY DECLARATION AND SUBCONTRACTOR'S STATEMENT

FORM OF STATUTORY DECLARATION

Statutory Declaration *Oaths Act (NSW) Ninth Schedule*

I, ...

Of .....

do solemnly and sincerely declare that:

1. I am the representative of:

.....(ABN.....)
("the Contractor")

in the Office Bearer capacity of:

.....

2. The Contractor has a contract with: ..... (ABN.....)

to carry out ..... [Contract No. .....]
("the Contract")

3. I personally know the facts which I have set out in this declaration.

4. All employees who have at any time been engaged by the Contractor for work done under the Contract:

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

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,

with the exception of the employees and respective amounts unpaid or not accrued for each employee listed below:

Employee:

Amount unpaid or not accrued:

.....

.....

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).

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.

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.

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):

a) that their subcontracts with their subcontractors and suppliers comply with the requirements of 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 insert amounts owing whatever due is sought to claim 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 names and addresses of the relevant employees, subcontractor's and suppliers and amounts stated 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, Payroll Tax Act 2007 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 Schedule 2 Part 5 of the Payroll 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 Payroll 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)

in the presence of an authorised witness, who states:

I, ...

(Name of authorised witness)

(* Please cross out any text that does not apply)

1. * *I saw the face of the person.*

   OR

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

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

   OR

   * *I have not known the person for at least 12 months, but I have confirmed the person's identity using an identification document and the document I relied on was:* .....

   (describe identification document relied on)

.....

(signature of authorised witness)

.....

(date)

.....

(name of authorised witness)

.....

(Justice of the Peace / Solicitor of the Supreme Court of New South Wales)

(or other person legally authorised to administer an oath under the Oaths Act 1900 (NSW) or where the declaration is sworn outside the State of New South Wales, any person having authority to administer an oath in that place

Authorised witness must print or stamp his or her full name, qualification and address before whom the declaration is made. JPs must include their registration number.)

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: [*business name of head contractor*]

ABN: [[*ABN*]

* 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

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

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

Annexure B

SUBCONTRACTOR'S STATEMENT

Note to the parties
For the purpose of this Subcontractor's Statement:
- "the subcontractor" is the Professional Services Contractor; and
- "the principal contractor" is Transport for NSW

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: .....

of: .....

has entered into a contract with: ..... ABN: .....
(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, Office of State Revenue website www.osr.nsw.gov.au, or Office of Industrial Relations, Department of Commerce website 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.

SCHEDULE 4 – FORM OF STATEMENT OF INTERESTS AND ASSOCIATIONS

This form is completed by the Professional Services Contractor when directed by the Principal as per clause 8.

Date:

Name:

Organisation:

To: Transport for NSW

[Principal]

In relation to: .....[name of project in full]

Declaration

I .....[insert full name] of

..... [insert business address]

agree and acknowledge that, except for the matters disclosed below:

1. To the best of my knowledge and belief, I do not have:

   (a) any financial or other interest, either directly or indirectly in;

   (b) any immediate family members (spouse, children, parents or siblings) or close friends with any financial or other interest in;

   (c) any other interest or association, either directly or indirectly with,

   the entities listed below.

Disclosure

(a) .....

(b) .....

(c) .....

(d) .....

(e) .....

(f) .....

(g) .....

(if further space is required please attach a signed separate letter)

I undertake to:

1. notify the Principal as soon as possible after I become aware of any matter which could affect the accuracy or completeness of the statements made in this deed or which would make them incorrect if this deed was given again; and

2. make a further updated declaration as soon as practicable.

I confirm that the statements set out in this deed are true and correct as at the date indicated below.

Executed as a Deed Poll

by the Recipient:	**in the presence of:**
_____	_____
Recipient	**Witness**
_____	_____
Name (please print)	**Name (please print)**
_____	_____
Date	**Date**

SCHEDULE 5 – TRACK POSSESSIONS

(Clause 36)

Mott MacDonald Australia Pty Limited & SMEC Australia Pty Limited is to advise TfNSW in accordance with the requirements of Clause 9.14.2 (d) of the Services Brief

SCHEDULE 6 – DEED OF GUARANTEE AND INDEMNITY

(Clause 3.10(a))

Deed of Guarantee and Indemnity made at on 20

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 Level 5, Tower A, Zenith Centre, 821 Pacific Highway, CHATSWOOD NSW 2067 (***Principal***)
[ ] ABN [ ] of [ ] (***Guarantor***)

RECITALS

A. The Principal has agreed to enter into the Contract with the Contractor on the condition that the Guarantor provide this Guarantee.

B. The Guarantor has agreed on the following terms and conditions to guarantee to the Principal all of the Obligations and to indemnify the Principal against any loss arising from any failure by the Contractor to perform the Obligations.

C. The Guarantor considers that by providing this guarantee there will be a commercial benefit flowing to it.

THIS DEED PROVIDES

1. Definitions

1.1 Definitions and Interpretation

In this Deed:

Contract means the ***[Insert details]*** Contract dated on or about the date of this Deed between the Principal and the Contractor.

Contractor means ***[insert details]***.

Event of Default means any event which constitutes a breach of, or is duly and properly declared to be an event of default (howsoever described) by, the Contract.

Guaranteed Money means all money the payment or repayment of which from time to time forms part of the Obligations.

Insolvency Provision means any Law relating to insolvency, sequestration, liquidation or bankruptcy (including any Law relating to the avoidance of conveyances in fraud of creditors or of preferences, and any Law under which a liquidator or trustee in bankruptcy may set aside or avoid transactions), and any provision of any agreement, arrangement or scheme, formal or informal, relating to the administration of any of the assets of any person.

Obligations means all the liabilities and obligations of the Contractor to the Principal under or arising out of or in any way in connection with the Contract or the work to be carried out or performed by the Contractor under the Contract, and includes any liabilities or obligations which:

(a) are liquidated or unliquidated;

(b) are present, prospective or contingent;

(c) are in existence before or come into existence on or after the date of this Deed;

(d) relate to the payment of money or the performance or omission of any act;

(e) sound in damages only; or

(f) accrue as a result of any Event of Default,

and irrespective of:

(g) whether the Contractor is liable or obligated solely, or jointly, or jointly and severally with another person;

(h) the circumstances in which the Principal comes to be owed each liability or obligation and in which each liability or obligation comes to be secured by this Deed, including any assignment of any liability or obligation or of this Deed; or

(i) the capacity in which the Contractor and the Principal comes to owe or be owed such liability or obligation,

and ***Obligation*** means any liability or obligation forming part of the Obligations.

Power means any right, power, authority, discretion, remedy or privilege conferred on the Principal by the Contract, by statute, by law or by equity.

Security means a mortgage, charge, pledge, lien, hypothecation, guarantee (including this Deed), indemnity, letter of credit, letter of comfort, performance bond, contractual right of set-off or combination or other assurance against loss which secures the Guaranteed Money or the performance of any other Obligation, and whether existing at the date of this Deed or at any time in the future.

Specified Rate means the rate which is 2% above the rate expressed as a percentage per annum:

(a) which is the average of the bid rates shown at approximately 10.15 am on reference rate page "BBSY" on the Reuters Monitor System on the day the relevant amount was due and payable for bank accepted bills having a tenor of 30 days; or

(b) if for any reason the rate referred to in paragraph (a) is no longer available or if there is no rate displayed for that period at that time, then the average of the buying rates quoted by 3 banks selected by the Principal at or about 10.15 am on the relevant date referred to in paragraph (a) for bills accepted by such banks having a tenor of 30 days.

1.2 Defined terms

Terms used in this Deed which are not otherwise defined will have the meaning given to them in the Contract.

1.3 Interpretation

In this Deed unless the context otherwise requires:

(a) references to a person include an individual, a body politic, the estate of an individual, a firm, a corporation, an authority, an association or joint venture (whether incorporated or unincorporated), or a partnership;

(b) the words "including", "includes" and "include" will be read as if followed by the words "without limitation";

(c) a reference to any party to this Deed includes that party's executors, administrators, successors, and permitted substitutes and assigns, including any person taking part by way of novation;

(d) a reference to any Authority, institute, association or body is:

(1) if that Authority, institute, association or body is reconstituted, renamed or replaced or if the powers or functions of that Authority, institute, association or body are transferred to another organisation, deemed to refer to the reconstituted, renamed or replaced organisation or the organisation to which the powers or functions are transferred, as the case may be; and

(2) if that Authority, institute, association or body ceases to exist, deemed to refer to the organisation which serves substantially the same purposes or objects as that Authority, institute, association or body;

(e) a reference to this Deed or to any other deed, agreement, document or instrument is deemed to include a reference to this Deed or such other deed, agreement, document or instrument as amended, novated, supplemented, varied or replaced from time to time;

(f) a reference to any legislation or to any section or provision of it includes:

(1) any statutory modification or re-enactment of, or any statutory provision substituted for, that legislation, section or provision; and

(2) ordinances, by-laws, regulations of and other statutory instruments issued under that legislation, section or provision;

(g) words in the singular include the plural (and vice versa) and words denoting any gender include all genders;

(h) headings are for convenience only and do not affect the interpretation of this Deed;

(i) a reference to:

(1) a party or clause is a reference to a party or clause of or to this Deed; and

(2) a paragraph or a sub-paragraph is a reference to a paragraph or sub-paragraph in the clause in which the reference appears;

(j) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;

(k) for all purposes (other than where designated as a Business Day), "day" means calendar day;

(l) a reference to "$" is to Australian currency;

(m) no rule of construction applies to the disadvantage of a party on the basis that the party put forward or drafted this Deed or any part; and

(n) any reference to "information" will be read as including information, representations, statements, data, samples, calculations, assumptions, deductions, determinations, drawings, design, specifications, models, plans and other documents in all forms including the electronic form in which it was generated.

2. Guarantee

2.1 Guarantee

The Guarantor irrevocably and unconditionally guarantees to the Principal the due and punctual performance by the Contractor of all the Obligations.

2.2 Payment by Guarantor

If the Contractor does not pay the Guaranteed Money when due, the Guarantor must on demand pay to the Principal the Guaranteed Money which is then due and unpaid or which later becomes due, owing or payable.

2.3 Perform Obligations

If the Contractor defaults in the performance or observance of any of the Obligations, the Guarantor must, in addition to its obligations under clause 2.2 of this Guarantee, on demand from time to time by the Principal, immediately perform any of the Obligations then required to be performed by the Contractor in the same manner as the Contractor is required to perform the Obligations.

3. Indemnity

As a covenant separate and distinct from that contained in clause 2.1, the Guarantor irrevocably and unconditionally agrees to indemnify the Principal and at all times to keep the Principal indemnified against any loss or damage suffered by the Principal arising out of or in connection with:

(a) any failure by the Contractor to perform the Obligations duly and punctually; or

(b) any obligation or liability that would otherwise form part of the Obligations being void, voidable or unenforceable against or irrecoverable from the Contractor for any reason, and whether or not the Principal knew or ought to have known of that reason.

4. Liability under this deed

4.1 Liability as guarantor and indemnifier

A reference in this Deed to the obligations or liabilities of the Guarantor is a reference to the Guarantor's obligations or liabilities as either guarantor or indemnifier (or both) under this Deed. The use of the expression "Guarantor" in this Deed in relation to a party must not be construed as diminishing that party's obligations as an indemnifier under this Deed.

4.2 Limitation on Guarantor's liability

The liability of the Guarantor under this Deed will not exceed the liability which the Guarantor would have had to the Principal arising out of or in connection with the Contract, the Works or the Obligations, if the Guarantor had been named in the Contract as being jointly and severally liable with the Contractor to the Principal.

5. Nature and preservation of liability

5.1 Absolute liability

(a) The liability of the Guarantor under this Deed is absolute and is not subject to the performance of any condition precedent or subsequent by the Contractor or the Guarantor.

(b) This Deed binds each person who has executed it, notwithstanding that:

(1) any person, whether named as a party or not, does not execute this Deed;

(2) the execution of this Deed by any person is invalid, forged or irregular in any way; or

(3) this Deed is or becomes unenforceable, void or voidable against any other person.

5.2 Unconditional liability

The liability of the Guarantor under this Deed will not be affected by any act, omission, matter or thing which, but for this clause 5.2, might operate in law or in equity to release the Guarantor from that liability or to reduce the Guarantor's liability under this Deed, including any of the following:

(a) the occurrence before, on or at any time after the date of this Deed, of any Insolvency Event in relation to the Contractor or the Guarantor;

(b) the receipt by the Principal of any payment, dividend or distribution under any Insolvency Provision in relation to the Contractor or the Guarantor;

(c) the occurrence of any Event of Default;

(d) the Contract or any payment or other act, the making or doing of which would otherwise form part of the Obligations being or becoming or being conceded to be frustrated, illegal, invalid, void, voidable, unenforceable or irrecoverable in whole or in part for any reason whether past, present or future;

(e) the Principal accepting or declining to accept any Security from any person at any time;

(f) the Principal granting time, waiver or other indulgence or concession to, or making any composition or compromise with, the Contractor or the Guarantor;

(g) the Principal not exercising or delaying (whether deliberately, negligently, unreasonably or otherwise) in the exercise of any remedy or right it has for the enforcement of the Contract or any Obligation;

(h) any laches, acquiescence or other act, neglect, default, omission or mistake by the Principal;

(i) the determination, rescission, repudiation or termination, or the acceptance of any of the foregoing, by the Principal or the Contractor or the Guarantor of the Contract or any Obligation;

(j) any variation to the Contract or any Obligation, whether or not that variation is substantial or material, or imposes any additional liability on or disadvantages the Contractor or the Guarantor;

(k) the full, partial or conditional release or discharge by the Principal or by operation of law, of the Contractor or the Guarantor from the Contract or any Obligation;

(l) any change in membership (whether by death or retirement of an existing member, admission of a new member, or otherwise) or in the name of any partnership, firm or association in which the Contractor or the Guarantor is a member;

(m) the transfer, assignment or novation by the Principal or the Contractor or the Guarantor of all or any of its rights or obligations under the Contract or under any other Obligation;

(n) any failure by the Principal to disclose to the Guarantor any material or unusual fact, circumstance, event or thing known to, or which ought to have been known by, the Principal relating to or affecting the Contractor or the Guarantor at any time before or during the currency of this Deed, whether prejudicial or not to the rights and liabilities of the Guarantor and whether or not the Principal was under a duty to disclose that fact, circumstance, event or thing to the Guarantor or to the Contractor;

(o) the Principal agreeing with the Contractor or the Guarantor not to sue, issue process, sign or execute judgment, commence proceedings for bankruptcy or liquidation, participate in any administration, scheme or deed of arrangement or reconstruction, prove in any bankruptcy or liquidation, or do anything else in respect of the liability of the Contractor or the Guarantor;

(p) (where the Guarantor is an individual) the death or mental incapacity of the Guarantor; or

(q) the provisions of section 440J of the *Corporations Act 2001* (Cth) operating to prevent or delay:

(1) the enforcement of this Deed against any Guarantor; or

(2) any claim for contribution against any Guarantor.

5.3 No merger

(a) This Deed is in addition to and does not merge with, postpone, lessen or otherwise prejudicially affect the Contract or any other Power of the Principal.

(b) The Principal will hold any judgment or order obtained by it against any person in respect of the Guaranteed Money or the Obligations collaterally with this Deed, and this Deed will not merge in that judgment or order.

5.4 No obligation to gain consent

No consent is required from any Guarantor nor is it necessary for the Guarantor to or be made aware of any event referred to in clause 5.2, any transaction between the Principal and the Contractor, or any particulars concerning any Obligation.

5.5 Appropriation

(a) The Principal is under no obligation to marshal or appropriate in favour of any Guarantor, or to exercise, apply, transfer or recover in favour of any Guarantor, any Security or any funds or assets that the Principal holds, has a claim on, or has received or is entitled to receive, but may do so in the manner and order as the Principal determines in its absolute discretion.

(b) The Principal may hold in a suspense account (without liability to pay interest) any money which it receives from the Guarantor, or which it receives on account of the Guarantor's liability under this Deed, and which the Principal may, at its discretion, appropriate in reduction of the Guarantor's liability under this Deed.

5.6 Void or voidable transactions

If:

(a) the Principal has at any time released or discharged:

(1) the Guarantor from its obligations under this Deed; or

(2) any assets of the Guarantor from a Security,

in either case in reliance on a payment, receipt or other transaction to or in favour of the Principal; or

(b) any payment or other transaction to or in favour of the Principal has the effect of releasing or discharging:

(1) the Guarantor from its obligations under this Deed; or

(2) any assets of the Guarantor from a Security;

and

(c) that payment, receipt or other transaction is subsequently claimed by any person to be void, voidable or capable of being set aside for any reason, including under an Insolvency Provision or under the general law; and

(d) that claim is upheld or is conceded or compromised by the Principal,

then:

(e) the Principal will immediately become entitled against the Guarantor to all rights (including under any Security) as it had immediately before that release or discharge;

(f) the Guarantor must immediately do all things and execute all documents as the Principal may reasonably require to restore to the Principal all those rights; and

(g) the Guarantor must indemnify the Principal against costs, losses and expenses suffered or incurred by the Principal in or in connection with any negotiations or proceedings relating to the claim or as a result of the upholding, concession or compromise of the claim.

5.7 No set-off, counterclaim

The liability of the Guarantor under this Deed will not be reduced or avoided by any defence, set-off or counterclaim available to the Contractor against the Principal.

5.8 Claim on the Guarantor

The Principal is not required to make any claim or demand on the Contractor, or to enforce the Contract, or any other right, power or remedy against the Contractor, before making any demand or claim on the Guarantor.

5.9 No representation by Principal etc.

The Guarantor acknowledges that it has not entered into this Deed as a result of any representation, promise, statement or inducement to the Guarantor by or on behalf of the Principal, the Contractor or any other person.

6. Representations and Warranties

6.1 General representations and warranties

The Guarantor or, if there is more than one Guarantor, each Guarantor represents and warrants to the Principal:

(a) this Deed constitutes a valid and legally binding obligation of the Guarantor in accordance with its terms;

(b) the execution, delivery and performance of this Deed by the Guarantor does not breach any law, or any document or agreement to which the Guarantor is a party or which is binding on it or any of its assets;

(c) no litigation, arbitration, mediation, conciliation, criminal or administrative proceedings are current, pending or, to the knowledge of the Guarantor, threatened, which, if adversely determined, may have a material adverse effect on the business assets or financial condition of the Guarantor;

(d) all information relating to the Guarantor provided to the Principal in connection with this Deed is true in all material respects and is not, by omission or otherwise, misleading in any material respect; and

(e) the Guarantor has not entered into this Deed as the trustee of any trust.

6.2 Corporate representations and warranties

The Guarantor, or if there is more than one Guarantor, each Guarantor, that is or purports to be a body corporate, further represents and warrants to the Principal that:

(a) it is duly incorporated and has the corporate power to own its property and to carry on its business as is now being conducted;

(b) the execution, delivery and performance of this Deed does not breach the Constitution of the Guarantor and, if the Guarantor or any of its subsidiaries is listed on the Australian Securities Exchange Limited or on any other stock exchange, those listing requirements or business rules;

(c) it has the power, and has taken all corporate and other action required, to enter into this Deed and to authorise the execution and delivery of this Deed and the performance of its obligations under this Deed; and

(d) the Guarantor has filed all corporate notices and effected all registrations with the Australian Securities and Investments Commission and all of those filings and registrations are current, complete and accurate.

6.3 Representations and warranties repeated

Each representation and warranty in this Deed will be repeated on each day whilst any of the Guaranteed Money remains outstanding (whether or not then due for payment) with reference to the facts and circumstances then subsisting, as if made on each such day.

7. Payments

7.1 On demand

All money payable by the Guarantor under this Deed must be paid by the Guarantor on demand by the Principal in immediately available funds to the account and in the manner notified by the Principal to the Guarantor.

7.2 Payment in gross

All money received or recovered by the Principal on account of the Guaranteed Money will be treated as payments in gross without any right on the part of the Guarantor to claim the benefit of any money received or recovered by the Principal or any Security, until the Principal has been paid 100 cents in the dollar in respect of the Guaranteed Money.

7.3 Interest

As a liability separate and distinct from the Guarantor's liability under clauses 2 and 3, the Guarantor must on demand by the Principal pay interest on all amounts due and payable by it and unpaid under or in respect of this Deed. Interest will accrue on those amounts from day to day from the due date up to the date of actual payment, before and (as a separate and independent obligation) after judgment, at the Specified Rate for successive 90 day interest periods commencing on the date of default and, if not paid when due, will itself bear interest in accordance with this clause 7.3.

7.4 Merger

If the liability of the Guarantor to pay to the Principal any money under this Deed becomes merged in any judgment or order, then, as an independent obligation, the Guarantor will pay interest on the amount of that money at the rate which is the higher of that payable under clause 7.3 and that fixed by or payable under the judgment or order.

7.5 No set-off or deduction

All payments by the Guarantor to the Principal under this Deed must be:

(a) free of any set-off or counterclaim; and

(b) without deduction or withholding for or on account of any present or future Taxes, unless the Guarantor is compelled by law to make any deduction or withholding.

If the Guarantor is compelled by law to make any deduction or withholding for or on account of any present or future Taxes (not being Taxes on the overall net income of the Principal), then the Guarantor must:

(c) pay to the Principal any additional amounts necessary to enable the Principal to receive (after all deductions and withholdings for those Taxes) a net amount equal to the full amount which would otherwise be payable to the Principal if no deduction or withholding was required to be made;

(d) promptly (and within the time prescribed by law) pay to the relevant taxing authority the amount of those Taxes which it is compelled by law to deduct or withhold, and indemnify the Principal for any Taxes and interest or penalties to which the Principal may become liable consequent on the failure of the Guarantor to pay those Taxes; and

(e) deliver to the Principal, promptly on request from the Principal, a copy of any receipt issued by the relevant taxing authority on payment of those Taxes.

7.6 Currency indemnity

(a) The Australian Dollar is the currency of payment by the Guarantor under or in connection with this Deed, except that payment by the Guarantor of or in relation to any Obligation which is denominated in a foreign currency must be made in that foreign currency.

(b) If for any reason any amount payable by the Guarantor under or in connection with this Deed is received by the Principal in a currency (Payment Currency) other than the currency (Agreed Currency) in which that amount is required to be paid under this Deed (whether as a result of any judgment or order, the liquidation of the Guarantor or otherwise), and the amount obtained (net of charges) by the Principal on its conversion of the amount of the Payment Currency received into the Agreed Currency is less than the amount payable under this Deed in the Agreed Currency, then the Guarantor will, as an independent and additional obligation, indemnify the Principal for that deficiency and for any loss sustained as a result of that deficiency.

8. Expenses and stamp duties

8.1 Expenses

The Guarantor must on demand reimburse the Principal for and keep the Principal indemnified against all expenses, including legal fees, costs and disbursements on a solicitor/own client basis (or on a full indemnity basis, whichever is the higher) assessed without the necessity of taxation, incurred by the Principal in connection with:

(a) the preparation, negotiation and execution of this Deed and any subsequent consent, agreement, approval, waiver, amendment to or discharge of this Deed; and

(b) any exercise, enforcement or preservation, or attempted exercise, enforcement or preservation, of any rights under this Deed.

8.2 Stamp duties

(a) The Guarantor must pay all stamp duties, transaction, registration and similar Taxes, including fines and penalties, financial institutions duty and debits tax which may be payable to or required to be paid by any appropriate authority, or determined to be payable in connection with the execution, delivery, performance or enforcement of this Deed or any payment, receipt or other transaction contemplated by this Deed; and

(b) the Guarantor must indemnify the Principal against any loss or liability incurred or suffered by it as a result of the delay or failure by the Guarantor to pay Taxes.

8.3 Goods and Services Tax

If the Principal is or becomes liable to pay any GST (including any penalty) in respect of any supply it makes under, or in connection with, this Deed (GST Liability) then:

(a) to the extent that an amount is payable by the Guarantor to the Principal under this Deed for that supply - the amount will be increased by the full amount of the GST Liability; and

(b) otherwise - the Guarantor will indemnify and keep the Principal indemnified for the full amount of the GST Liability.

9. Assignment

The Principal may assign, novate or otherwise transfer all or any part of its rights under this Deed and may disclose to a proposed assignee or transferee any information in the possession of the Principal relating to the Guarantor.

10. Governing law, jurisdiction and arbitration

10.1 Governing law

This Deed and where applicable, the arbitration reference contained in clause 10.3, is governed by and will be construed according to the laws of New South Wales.

10.2 Jurisdiction

(a) This clause 10.2 only applies where clauses 10.3 to 10.7 do not apply.

(b) The Guarantor irrevocably submits to the non-exclusive jurisdiction of the courts and appellate courts of New South Wales, and the courts competent to determine appeals from those courts, with respect to any proceedings which may be brought relating in any way to this Deed.

(c) The Guarantor irrevocably waives any objection it may now or in the future have to the venue of any proceedings, and any claim it may now or in the future have that any proceeding has been brought in an inconvenient forum, where that venue falls within paragraph (b) of this clause.

10.3 Reference to arbitration

(a) Clauses 10.3 to 10.7 will only apply where the Guarantor is a foreign company (as defined in section 9 of the *Corporations Act 2001* (Cth)).

(b) Any controversy, claim or dispute directly or indirectly based upon, arising out of, relating to or in connection with this Deed (including but not limited to any question relating to the existence, validity or termination of this Deed) shall be referred to and finally resolved by arbitration in accordance with the arbitration rules of the Australian Centre for International Commercial Arbitration (known as the ACICA Arbitration Rules).

(c) The seat of the arbitration will be Sydney.

(d) The number of arbitrators will be one.

(e) The language of the arbitration will be English.

10.4 Powers of the arbitrator

The arbitral tribunal has the power to grant all legal, equitable and statutory remedies, except punitive damages.

10.5 Consolidation

The parties agree that section 24 of the *International Arbitration Act 1974* (Cth) will apply in respect of consolidations.

10.6 Joinder

The arbitral tribunal has the power, on the application of any party to this arbitration agreement, to allow a third party who the arbitrator considers has a sufficient interest in the outcome of the arbitration to be joined in the arbitration as a party. Each party to this Deed hereby consents to such joinder. In the event of such joinder of parties in the arbitration, the arbitrator has the power to make a single final award, or separate awards, in respect of all parties so joined in the arbitration.

10.7 Award final and binding

Any award will be final and binding upon the parties.

11. Miscellaneous

11.1 Notices

(a) Any notices contemplated by this Deed must be in writing and delivered to the relevant address or sent to the facsimile number as set out below (or to any new address or facsimile number that a party notifies to the others).

(1) to the Principal: Level 5, Tower A
Zenith Centre
821 Pacific Highway
CHATSWOOD NSW 2067
Fax: (02) 9200 0290

(2) to the Guarantor: ***[to be completed]***

(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 record showing the number of the person to whom it is addressed in accordance with paragraph (a), which is a Business Day.

11.2 Continuing obligation

This Deed is a continuing obligation notwithstanding any termination by the Guarantor, settlement of account, intervening payment, express or implied revocation or any other matter or thing, and the Principal will continue to be entitled to the benefit of this Deed as regards the due and punctual performance of all the Obligations until a final discharge has been given to the Guarantor.

11.3 Further assurance

The Guarantor must immediately on the request of the Principal, and at the cost of the Guarantor, do and perform all further acts and things and execute and deliver all further

documents as the Principal reasonably requires, or as are required by law, to perfect or to give effect to the rights and powers of the Principal created, or intended to be created, by this Deed.

11.4 Form of demand

A demand on the Guarantor for payment under this Deed may be in the form and contain any information as the Principal determines. It need not specify the amount of the Guaranteed Money, nor the method or basis of calculation of all or any part of the Guaranteed Money, including amounts of, or in the nature of, interest.

11.5 Entire agreement

This Deed constitutes the entire agreement and understanding between the parties and will take effect according to its tenor despite, and supersede:

(a) any prior agreement (whether in writing or not), negotiations and discussions between the parties in relation to the subject matter of this Deed; or

(b) any correspondence or other documents relating to the subject matter of this Deed that may have passed between the parties prior to the date of this Deed and that are not expressly included in this Deed.

11.6 Joint and several liability

The obligations of the Guarantor, if more than one person, under this Deed, are joint and several. Each person constituting the Guarantor acknowledges and agrees that it will be causally responsible for the acts and omissions (including breaches of this Deed) of the other as if those acts or omissions were its own and the Principal may proceed against any or all of them. This Deed binds each person who signs as a "Guarantor" even if another person who was intended to become a "Guarantor" does not become a "Guarantor" or is not bound by this Deed.

11.7 Severance

If at any time any provision of this Deed is or becomes illegal, invalid or unenforceable in any respect under the law of any jurisdiction, that will not affect or impair:

(a) the legality, validity or enforceability in that jurisdiction of any other provision of this Deed; or

(b) the legality, validity or enforceability under the law of any other jurisdiction of that or any other provision of this Deed.

11.8 Remedies cumulative

Each Power is cumulative and in addition to each other Power available to the Principal.

11.9 Waiver

(a) Failure to exercise or enforce or a delay in exercising or enforcing or the partial exercise or enforcement of any right, power or remedy provided by law or under this Deed by the Principal will not in any way preclude, or operate as a waiver of, any exercise or enforcement, or further exercise or enforcement of that or any other right, power or remedy provided by law or under this Deed.

(b) Any waiver or consent given by the Principal under this Deed will only be effective and binding on the Principal if it is given or confirmed in writing by the Principal.

(c) No waiver by the Principal of:

(1) a breach of any term of this Deed; or

(2) any other failure by the Guarantor to comply with a requirement of this Deed,

will operate as a waiver of another breach of that term or failure to comply with that requirement or of a breach of any other term of this Deed or failure to comply with any other requirement of this Deed.

11.10 Consents

Any consent of the Principal referred to in, or required under, this Deed may be given or withheld, or may be given subject to any conditions, as the Principal (in its absolute discretion) thinks fit, unless this Deed expressly provides otherwise.

11.11 Moratorium legislation

To the fullest extent permitted by law, the provisions of all laws operating directly or indirectly to lessen or affect in favour of the Guarantor any obligation under this Deed, or to delay or otherwise prevent or prejudicially affect the exercise of any Power, are expressly waived.

11.12 Set-off

(a) The Principal may (without prior notice at any time) set off any obligation then due and payable by the Guarantor under this Deed against any obligation (whether or not due and payable) by the Principal to the Guarantor, regardless of the place or currency of payment of either obligation or the office or branch through which either obligation is booked. If the obligations are in different currencies, the Principal may convert either obligation into the currency of the other obligation at a market rate of exchange determined by it for the purpose of the set-off. If either obligation is unliquidated or unascertained, the Principal may effect the set off in an amount estimated by it in good faith to be the amount of that obligation.

(b) The Principal is not obliged to exercise any right of set off pursuant to clause 11.12(a), which is in addition to its other rights of combination of account, set-off or lien (by contract or operation of law).

(c) On its exercise of any set off pursuant to clause 11.12(a) against the Guarantor, the Principal will promptly notify the Guarantor of details of that set-off.

11.13 Variations

This Deed may only be varied by a document signed by or on behalf of both the Principal and the Guarantor.

11.14 Provisions limiting or excluding liability

Any provision of this Deed which seeks to limit or exclude a liability of the Principal or the Guarantor is to be construed as doing so only to the extent permitted by law.

11.15 Counterparts

(a) This Deed need not be executed by the Principal.

(b) If the Guarantor is more than one person, a Guarantor may execute this Deed in one or more separate counterparts, each of which constitutes the deed of that Guarantor.

Executed as a deed.

Executed by
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 7 – OPTIONS

(Clause 16.5)

Not applicable.

SCHEDULE 8 – PROFESSIONAL SERVICES CONTRACTOR'S CERTIFICATE OF COMPLETION

(Definition of "Completion" in Clause 1 and Clause 18.8(c))

PROFESSIONAL SERVICES CONTRACTOR'S CERTIFICATE OF COMPLETION

PROFESSIONAL SERVICES CONTRACTOR:

Description of Portion or Services: _____

_____

_____

I certify that the Completion of the above Portion / the Services has / have been achieved in accordance with the requirements of the Agreement between the Principal and _____, complies with the requirements of the Agreement, subject to the register of unresolved issues attached.

I further certify that:

(a) All Variations (including concessions) are listed in the attached compliance register.
(b) All Defects 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 Contract reflect the true status of the Portion / the Services.

SIGNATURE:_____ SIGNATURE:_____

(Professional Services Contractor's Representative)

DATE:_____

SCHEDULE 9 – NOT USED

SCHEDULE 10 – EXPERT DETERMINATION AGREEMENT

Expert Determination Agreement

[Insert name of Principal]
Principal

[Insert name of Professional Services Contractor]
Contractor

[Insert name of Expert]
Expert

Expert Determination Agreement made at on

Parties **[Insert name and address of Principal] ("Principal")**

[Insert name and address of Professional Services Contractor] ("Professional Services Contractor")

[Insert name and address of Expert agreed between the Parties or appointed pursuant to clause [to be inserted] of the PSC Contract] ("Expert")

Recitals

A. The Principal and the Professional Services Contractor (together **"the Parties"** and each **"a Party"**) are parties to a contract (the **"PSC Contract"**) for ***[to be inserted]***.

B. By written notice dated ***[to be inserted]***, the ***[insert Principal or Professional Services Contractor as applicable]*** has required that the matter described in Schedule 1, being a matter that the PSC Contract requires or permits to be referred to an Expert for determination, be determined by an Expert appointed under clause 19.3 of the PSC Contract (the **"Matter"**).

C. Pursuant to clause 19.3 of the PSC Contract, the Expert has been appointed to determine the Matter in accordance with the process set out in this Agreement.

Operative part

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.

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.

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. 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.

5. 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.

6. 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.

7. 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 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 7(a).

Schedule 1 - The Matter

[To be inserted when it comes time for expert determination]

Schedule 2 - Rules for Expert Determination Process

1. **Commencement**

Except as provided in clause 4.3 of these Rules, the expert determination process begins when the Expert accepts an appointment to determine the Matter in accordance with these Rules and the Code of Conduct appended to these Rules.

2. **Written Submissions**

2.1 Within 7 days after the date this process begins, Party A (ie the Party who gave notice of dispute under clause 19.1 of the PSC Contract) must, in addition to any particulars provided by Party A under clause 19.1 of the PSC Contract, give the other Party and the Expert a written statement of the Matter referred for Expert determination, any agreed statement of facts and a written submission on the Matter in support of Party A's contentions.

2.2 Within 7 days after the statement in clause 2.1 is served, the other Party must give Party A and the Expert a written response to Party A's submissions.

2.3 If the Expert considers it appropriate, Party A may reply in writing to the other Party's response in clause 2.2 within the time allowed by the Expert.

2.4 If the Expert decides further information or documentation is required for the determination of the Matter, the Expert may direct one or more Parties to provide such further submissions, information or documents as the Expert may require.

3. **Conference**

3.1 The Expert may, if he or she thinks appropriate, call a conference of the Parties. Unless the Parties agree otherwise, the conference will be held in Sydney.

3.2 At least 14 days before the conference, the Expert must inform the Parties of the date, venue and agenda for the conference.

3.3 The Parties must appear at the conference and may make submissions on the subject matter of the conference. If a Party fails to appear at a conference of which that Party had been notified under clause 3.2, the Expert and the other Party may nevertheless proceed with the conference and the absence of that Party will not terminate or discontinue the Expert determination process.

3.4 The Parties:

(a) may be accompanied at a conference by legal or other advisers; and

(b) will be bound by any procedural directions as may be given by the Expert in relation to the conference both before and during the course of the conference.

3.5 The conference must be held in private.

3.6 If required by any Party, transcripts of the conference proceedings must be taken and made available to the Expert and the Parties.

4. **General**

4.1 In making a determination or calling or holding a conference, the Expert must proceed in accordance with the PSC Contract.

4.2 All proceedings and submissions relating to the Expert determination process must be kept confidential except:

(a) with the prior consent of the Parties;

(b) as may be required by law; or

(c) as may be required in order to enforce the determination of the Expert.

4.3 The Expert must:

(a) inform the Parties of:

(i) any relationship or interest with the Parties or their respective officers, employees, contractors, consultants or agents;

(ii) any interest the Expert has in the matters in dispute; and

(iii) any circumstance which might reasonably be considered to adversely affect the expert's capacity to act independently or impartially,

immediately upon becoming aware of any such circumstances; and

(b) upon making any disclosure under this clause 4.3, unless and until the Parties agree otherwise terminate the proceedings.

5. **The Determination**

5.1 As soon as possible after receipt of the submissions or after any conference and, in any event not later than 90 days after the Expert's acceptance of appointment, the Expert must:

(a) determine the Matter between the Parties; and

(b) notify the Parties of that determination.

5.2 The determination of the Expert must:

(a) be in writing stating the Expert's determination and giving reasons;

(b) be made on the basis of the submissions (if any) of the parties, the conference (if any) and the Expert's own expertise; and

(c) meet the requirements of the PSC Contract.

5.3 Subject to clause 5.4, to the extent permitted by law, the Expert's determination will be final and binding on the Parties in the circumstances set out in clause 19.3(c) of the PSC Contract.

5.4 If the Expert's determination contains a clerical mistake, an error arising from an accidental slip or omission, a material miscalculation of figures, a mistake in the description of any person, matter or thing, or a defect of form, then the Expert must correct the determination.

6. **Costs**

Security for costs must be deposited by both Parties at the commencement of the Expert determination process in accordance with any direction of the Expert.

7. **Modification**

These rules may be modified only by agreement of the Parties and, if the Expert has been appointed, the Expert.

APPENDIX 1 TO RULES FOR EXPERT DETERMINATION PROCESS

Code of Conduct for an Expert

1. The function of the Expert is to make a determination of the Matter in accordance with the PSC Contract and the Expert Determination Agreement, including the Rules and this Code of Conduct.

2. The Expert must receive the written submissions and responses of the Parties in accordance with the procedures specified in the Rules and may require further information or documentation from the Parties which is reasonably necessary to determine the Matter.

3. The Expert must decide whether a conference is necessary to receive further information. The Expert must inform the Parties of the subject matter of any conference and may hear representations only on those matters during any such conference.

4. The Expert must disclose to both Parties all information and documents received.

5. If a Party fails to make a written submission, the Expert may continue with the process.

6. Subject to clause 3.3 of the Rules in relation to conferences, meetings and discussions with the Expert must only take place in the presence of both Parties.

Schedule 3 - The Expert's Fees and Disbursements

[To be inserted when it comes time for expert determination]

Signed as an agreement.

Signed for and on behalf of the Principal by ***[insert name]*** in the presence of:

[Signature]

[Name of witness]

[Signature of witness]

Signed for and on behalf of the Professional Services Contractor by ***[insert name]*** in the presence of:

[Signature]

[Name of witness]

[Signature of witness]

Signed by the Expert ***[insert name]*** in the presence of:

[Signature]

[Name of witness]

[Signature of witness]

AGREEMENT EXECUTION PAGE

DATED .....9..... day of .....July.....2019

SIGNED as a Deed.

Signed sealed and delivered for and on behalf of Transport for NSW ABN 18 804 239 602 by its authorised delegate in the presence of:

Signature of Witness

Signature of Authorised Signatory

Vandana Reddy

Full Name of Witness

James Griffin

Full Name of Authorised Signatory

Executed by **Mott MacDonald Australia Pty Limited ABN 13 134 120 353**, by its attorney and company director:

[redacted]

Name of attorney
pursuant to power of attorney
dated 19 October 2017:

[redacted]

Signature of witness

[redacted]

Name of witness
(BLOCK CAPITALS)

[redacted]

Signature of attorney
By executing this document, the attorney states that the attorney has received no notice of revocation of the power of attorney

5/07/19
Date

Executed by **Mott MacDonald Australia Pty Limited ABN 13 134 120 353**, by its attorney:

[redacted]

Name of attorney
pursuant to power of attorney dated 19 October 2017

[redacted]

Signature of witness

[redacted]

Name of witness
(BLOCK CAPITALS)

[redacted]

Signature of attorney
By executing this document, the attorney states that the attorney has received no notice of revocation of the power of attorney

9 July 2019

Date

Signed by SMEC Australia Pty Limited ABN 47 065 475 149 in accordance with section 127 of the Corporations Act 2001

[redacted]

Director

[redacted]

Director

Full Name of Director

[redacted]

Signature of Company Secretary/~~Director~~

[redacted]

Full Name of Company Secretary/~~Director~~

SCHEDULE 3 – LIST OF PSC PERSONNEL AND RESOURCES PLAN

3A - KEY PERSONNEL

POSITION	NAME
Design Manager	[redacted]
Cost Manager	[redacted]
Constructability Manager	[redacted]
Environmental Manager	[redacted]
Service Planning Lead	[redacted]
Geotechnical Lead	[redacted]
Project Director	[redacted]
Commercial Manager	[redacted]
Signalling Design Lead	[redacted]
HV and Traction Power Design Lead	[redacted]
LV Distribution and Lighting Design Lead	[redacted]
Earthing and Bonding Design Lead	[redacted]
Permanent Way Design Lead	[redacted]
Civil Engineering Design Lead	[redacted]
Lead Surveyor	[redacted]
Structural Design Lead	[redacted]
Communications, Technology and Control Systems Design Lead	[redacted]
Rolling Stock Design Lead	[redacted]
Transport Demand Modelling Lead (Road & Rail)	[redacted]
Pedestrian Modelling Lead	[redacted]
Fire Life Safety Design Lead	[redacted]
Urban Design and Architectural Lead	[redacted]
Sustainability Lead	[redacted]
Safety Assurance Lead	[redacted]

Senior Personnel for Additional Lead Roles:

POSITION	NAME
Senior Scheduler	[redacted]
Package Manager B1	[redacted]
Package Manager B2	[redacted]
Package Manager B3	[redacted]
Package Manager B4	[redacted]
Package Manager B5	[redacted]
Package Manager B6	[redacted]
Package Manager B7	[redacted]
Package Manager B8	[redacted]
Package Manager B9	[redacted]
Package Manager B10	[redacted]
Lead Urban Economist	[redacted]
Market Assessment Lead	[redacted]
Land Use Planning	[redacted]
Tunnelling Discipline Lead	[redacted]
Digital Platform Setup Coordination Lead	[redacted]
Stations and Station Systems Lead	[redacted]
Rail Systems Lead	[redacted]
Rail Service Planning Discipline Lead	[redacted]
Noise Mitigation Discipline Lead	[redacted]
Customer Centric Design Discipline Lead	[redacted]
Traffic Engineering	[redacted]
GIS Specialist	[redacted]
Stakeholder Engagement Manager	[redacted]
Disability Discrimination Act Consultant	[redacted]
Building Code Australia Consultant	[redacted]
Heritage Consultant	[redacted]
Asset Operations Specialist	[redacted]

POSITION	NAME
Wellbeing and Diversity	[redacted]
Risk, Opportunities and Innovation Manager	[redacted]
Utilities Specialist	[redacted]
Asset Maintenance Specialist	[redacted]
OHW Design Lead	[redacted]

3B – CV'S FOR THE KEY PERSONNEL

3C – RESOURCES PLAN

Proposed approach to design

Mott MacDonald Australia Pty Limited & SMEC Australia Pty Limited's proposed approach to design, including management of resourcing requirements for delivery of the concurrent projects;

Approach to Design Delivery

Mott MacDonald Australia Pty Limited & SMEC Australia Pty Limited will foster a collaborative working environment to develop the feasibility, definition design and concept design for the required packages, working with the MTMS team to deliver these packages through the business case process.

As part of driving the practical requirements for the project, the Mott MacDonald Australia Pty Limited & SMEC Australia Pty Limited team will develop and deliver designs that successfully meet the requirements of TfNSW's configuration and change management processes. Options will be evaluated through a challenge and MCA approach, this will be undertaken as a stakeholder engagement workshop.

Design of concurrent packages

Initially Mott MacDonald Australia Pty Limited & SMEC Australia Pty Limited will mobilise a core team to run through the first stage in project development, moving up to a more comprehensive team and progress through to optioneering and then reference/concept design for each package. The project core team structure will call upon the pool of specialists and support staff.

During the development stage, Mott MacDonald Australia Pty Limited & SMEC Australia Pty Limited will collaborate with the existing TfNSW programs to establish further viable options to achieve a more reliable service to the travelling customer. This collaboration, through consultation during workshops and other formal and informal modes of communication with TfNSW will ensure that Mott MacDonald Australia Pty Limited & SMEC Australia Pty Limited addresses the key issues identified.

Resourcing concurrent work

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Ability to resource the project
The sub-consultants to Mott MacDonald Australia Pty Limited & SMEC Australia Pty Limited include teams from COX Architecture, Slattery Australia, and Cardno.

Resource plan
Relocating resources from other offices to Sydney to work on the project to meet the immediate skills shortage, while also providing an opportunity to teach rail systems skills to early career engineers

Use of skilled designers based globally to support our local teams for peak workload periods, bringing international best practice and training opportunities for local staff

Training of transport planners and modellers on STM/PTPM and ETCM or equivalent to increase the capability in the industry outside of TPA who can use these models. We will develop a training for at least one person each calendar year on each model package, resulting in up to five additional STM/PTPM and five additional ETCM capable modellers across the Mott MacDonald Australia Pty Limited & SMEC Australia Pty Limited team. A maximum of 50% of these newly trained modellers will be from Mott MacDonald and a maximum of 50% will be from SMEC to ensure that capability is spread across organisations within the industry

Embark on a program of graduate development
within our Sydney offices to ensure that emerging Engineers are exposed to required skills areas, learning best practice within the integrated TfNSW and Mott MacDonald Australia Pty Limited & SMEC Australia Pty Limited team.

Resourcing profile

[redacted]

Changing workloads
Provide a 4-week activity and resources look-ahead to the program's steering committee and leadership team. This will provide the decision makers with the right information to know how they can manage the expectations of those further up. It also allows us to manage people to ensure best value for TfNSW.

SCHEDULE 4 – KRA PLAN

PROFESSIONAL SERVICES CONTRACT

(Incentivised Payment Regime)

Contract No. ISD-18-7725

Technical Advisor

More Trains More Services (MTMS)

KRA Plan

Infrastructure & Place

Ref No. 6228686

Document History

Version	Date of Approval	Doc. Control No.	Summary of Change
1	10/02/19		Issued for Approval
2	21/02/19		Updated following meeting 21/02/19

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1. Introduction

1.1 Background

This document outlines the Key Performance Indicators (KPIs) and their methods of measurement for the Key Result Area (KRA) Gainshare/Painshare framework for the Professional Services Contract (Incentivised Payment Regime), Technical Advisor for the More Train More Services (MTMS) program.

The More Trains More Services (MTMS) Program is a comprehensive plan that will deliver world-class services for all rail customers in NSW.

Over the past seven years patronage on the existing heavy rail network has grown by almost a third. Sydney's train network carries more than half of all public transport customers. As Sydney continues to grow, there will be more demand for services. New technology and infrastructure is needed to upgrade the network to meet the demands of our modern city.

The More Trains More Services program is already delivering a significant boost to rail services. Future stages of MTMS will harness digital systems technology to operate trains closer together with increased precision. Combined with infrastructure upgrades and new fleet, lines will be untangled, making their operations simpler. This will enable us to deliver more services more reliably to customers travelling on the rail network.

In delivering the Services, the key program objectives are to:

- deliver the works safely;
- meet agreed milestones and schedule;
- retention of key staff; and
- ensure no unplanned impact on existing infrastructure and operations of stakeholders, including Sydney Trains and NSW TrainLinks.

The different elements of the Gainshare/Painshare mechanisms applicable to the Professional Services Contractor are contained in Schedule 5 of this Standing Offer Deed.

1.2 Definitions

Unless otherwise defined in this Schedule 4, terms defined in this Deed or the PSC Contracts have the meanings given in those documents and the following terms have the following meanings.

Gainshare

The total amount of additional compensation earned by the Professional Services Contractor through better than MCOS performance in the KRAs for which "Gainshare" is stated as applying.

Key Result Areas (KRAs)

The key result areas specified in section 2.1.

Key Performance Indicator (KPI)

The key performance indicators specified in section 2.2.

KRA Gainshare Pool

Has the meaning given in paragraph 2.1 of Schedule 5.

KRA Performance Scores (KPSs)

Has the meaning given in paragraph 2.5 of Schedule 5.

KRA Plan Commencement Date

The date of this Deed.

Painshare

The total amount payable by the Professional Services Contractor through below MCOS performance in the KRAs for which "Painshare" is stated as applying.

1.3 Monitoring and Reporting

The Professional Services Contractor is responsible for collecting and collating all information required to evidence KRA performance. The information must be robust enough to allow audit/review/assessment by an independent third party (such as the Financial Auditor) without reference to the Principal or the Professional Services Contractor. In order to achieve this, the Professional Services Contractor must, as a minimum:

1. prepare a KRA Management Plan detailing how the necessary supporting documentation will be obtained, responsibility for collecting the data, and collating and storing the data;
2. ensure that registers which record events (or the fact that no events have occurred within a particular time period) are maintained and signed by both the Principal and

an appropriate Professional Services Contractor representative on a monthly basis. This is particularly important for a period in which no events are recorded (e.g. if no operational incidents occur during the month, the Operations Incident Register should show "Nil events" and be signed by the appropriate parties); and

3. not rely on third party systems to produce records. .

1.4 KRA Review and Assessment

The Principal may undertake a review of KRA results at any time. These reviews are generally aimed at assessing the adequacy of records maintained and to provide a point in time view of current non cost performance.

The Principal may engage external third parties to assess KRA supporting documentation and provide a report assessing the KRA Performance Scores. The draft report will be provided to the Professional Services Contractor for comment prior to finalisation. The Principal will consider the content of the report in addition to any relevant additional information provided by the Professional Services Contractor when determining the KRA Performance Score(s).

Failure of the Professional Services Contractor to provide sufficient information to facilitate an independent third party to determine a KRA outcome will result in a score of -100 (Failure) for the relevant KRA/KPI. For example, a single operations log signed off only at the end of the assessment period will not be considered sufficient evidence for this purpose.

Where suitable evidence is not provided to support KRA performance or where logs and schedules have not been regularly signed during the performance of the Services, the score will be deemed to be -100 for the relevant KPI and applied when calculating the KRA Performance Score.

1.5 KRA Plan Review and Reset

TfNSW will undertake an annual review of the KRA Plan in conjunction with the Professional Services Contractor. The review will address the following areas:

- Address any errors, omissions or issues associated with the KRA Plan requiring resolution to ensure clarity of interpretation of the contents of the Plan; and
- Assess and if necessary re-set performance targets defined under the KRA plan in order to support the performance of the professional service contractor of the Professional Services Contractor.

Following the review, TfNSW may, acting reasonably, issue an updated KRA Plan including updated performance targets.

2. KRA Gainshare/Painshare

2.1 Key Result Areas (KRAs)

The Principal has developed objectives outlining the performance goals for the Professional Services Contractor in each of the four KRAs outlined in Table 1 below. These KRAs represent the non-cost areas that the Principal holds as fundamentally important to project delivery performance.

Table 1 - Non-cost KRAs and associated Objectives

Area	Objectives
Schedule	• Meet all key milestone dates
Key Staff Retention	• Maintaining Key People for the duration of the project
Operations	• No unplanned disruption to rail network operations
Safety	• No significant safety incidents

2.2 Gainshare/Painshare for KRA Performance

Performance is measured for each KRA in terms of a KRA Performance Score (KPS) – a number between -100 (total failure) and +100 (outstanding/breakthrough), whereby the midpoint (0 points) represents the Principal's minimum conditions of satisfaction (MCOS).

The maximum sum available for Gainshare in relation to non-cost KRAs (KRA Gainshare Pool) and the maximum value of Painshare (KRA Painshare Pool) will be calculated in accordance with Schedule 5 of this Deed. A sample calculation detailing how the annual earned value of works is calculated is included in Attachment 1:

Table 2 – Spread of KRA Gainshare Pool and KRA Painshare Pool across non-cost KRAs

KRA	Share of KRA Gainshare Pool	Share of KRA Painshare Pool
Schedule	[redacted]	
Key Staff Retention		
Total		

The Operations and Safety Incident KRA's perform as modifiers to the maximum available KRA Gainshare Pool. Refer Section 2.6 and 2.7 below.

Specific measurement of performance for each KRA is measured by one or more KPIs. Each KPI sets out the specific measure of performance, the value or weighting of each measure, and a spectrum for measured performance. While specific targets are different for each KPI, measured performance for each KPI is generally scored from +100 points (Outstanding) to -100 points (Fail) whereby the midpoint (0 points) represents TfNSW's minimum conditions of satisfaction (MCOS).

Each KPI is given proportional sub-weightings according to their relative importance to the Principal in relation to the successful delivery of the Project as shown in Table 3 below.

Table 3 – KPIs and their sub-weightings within each KRA

KRA	KRA Gainshare weighting	KRA Painshare weighting	KPI	KPI Gainshare weighting	KPI Painshare weighting
Schedule	[redacted]		Key milestones – design package submissions and Portion Completion	[redacted]	
Key Staff Retention			Retention of key resources		

During the period referred to in paragraph 1.2 of Schedule 5 of this Deed, the performance in each of the KRAs will be measured in accordance with the methodologies set out in this KRA Plan.

2.3 Criteria for selecting Key Performance Indicators

KPIs for the measurement of performance against each KRA have been selected on the basis that they are:

- closely related to the desired end result rather than just the processes or intermediate results needed to achieve these outcomes;
- practical and cost-effective to measure; and
- simple to understand

The following Sections 2.4 to 2.5 detail the KPIs and their parameters for measurement against each of the KRAs.

2.4 Schedule KRA

Objectives: • Meet all key milestone dates			
KPIs	**1. Key milestone – Completion of Milestones** Achievement of principal milestones		
Score	**Failure (-100 pts)**	**MCOS (0 pts)**	**Outstanding (100 pts)**
	-100	0	+100
Indicators:			
1. Key milestone – Completion of Milestones	Completion of [redacted] or less milestones = -100pts Pro rata score between < [redacted] and > [redacted]	Completion of [redacted] of agreed milestones	Completion of [redacted] of milestones =+100pts Pro rata score between < [redacted] and > [redacted]
Weighting	Total KRA Performance Score = [redacted] x KPI 1 Score (Completion of Milestones)		
Aggregation	**KPI 1 (Key Milestone – Completion of Milestones)** KPI is scored based on the date of completion for each agreed milestone.		
Methods of Data Collection	**KPI 1 (Key milestones – Completion of Milestones)** Actual dates of completion for each milestone and date of design package submission.		
Notes	**KPI 1 (Key milestones – Completion of Milestones)**		

	• Milestones may include Completion of Portions or submission of design packages or both • Agreed milestones are set out in each PSC Contract. • Determination is based on all milestones due for achievement in the relevant year in respect of which KRA performance is being determined. • Following the formation of new PSC Contracts, the milestones will include all existing milestones in the current 12 month period plus any additional milestones as a result of the new PSC Contract. [redacted] • The milestone date for non-design documents is met when the document is submitted to the Principal before the agreed milestone date. If the Principal rejects the document in accordance with Clause 8.1 of the Services Brief, the document is deemed to have not been submitted. • The milestone date for a design package is met when the design package is accepted by the Principal's Engineering Assurance team for submission to the CCB or similar forum. i.e. where a design package is not accepted following the Principal's review for completeness in accordance with the TSR and is returned to the Professional Services Contractor for further work, the design package submission is not considered complete. The Principal expects that the following designs will be completed in the first three months. For MTMS Stage 3 packages - Definition Design It is expected that in this timeframe that all deliverables which will form a part of a Program Gate 1 submission will be completed. The Program Gate 1 CCB submission and review will not occur in the first three months. As outlined in the Schedule KRA, the milestone date for a design package is met when the design package is accepted by the Principal's Engineering Assurance team, not when accepted by CCB or similar forum. For MTMS Stage 4 packages - Feasibility Design It is expected that in this timeframe that all deliverables which will form a part of a Program Gate 0 submission will be completed. The Program Gate 0 CCB submission and review will not occur in the first three months. As outlined in the Schedule KRA, the milestone date for a design package is met when the design package is accepted by the Principal's Engineering Assurance team, not when accepted by CCB or similar forum.

	• The splitting of a design package will constitute a failure to submit that design package in accordance with the approved schedule, unless the design package split is directed or approved by the Principal's Representative.

2.5 Key Staff Retention KRA

Objectives: Retention of key resources			
KPIs	**1. Retention of Key Resources** Identified key staff retained until, in respect of each PSC Contract, either all "Portions" have achieved "Completion" (as defined in the relevant PSC Contract) or the PSC Contract has been terminated (**End Date**), in accordance with the Resource Schedule.		
Score	**Failure (-100 pts)**	**MCOS (0 pts)**	**Outstanding (100 pts)**
	-100 to <0	0	>0 to +100
Indicators:			
1. Retention of Key Staff	For each Key Resources re-allocated within the Professional Services Contractor's organisation (or otherwise not involved in the Project) a reduction in points as detailed in the Notes section of the Key Staff Retention KRA to a maximum of -100 pts.	0 = Nil Pts	All identified Key Resources retained and involved in the Project until the End Date. = 100 pts
Weighting	Total KRA Performance Score = 100% x KPI 1 Score (Retention of Key Resources)		

Aggregation	**KPI 1 (Retention of Key Resources)** KPI is scored based on identified Key Staff being retained on the Project until the End Date.
Methods of Data Collection	**KPI 1 (Retention of Key Resources)** The Key Resources are required to participate in the Project generally in accordance with Resources Plan set out in Schedule 3 of this Deed. (Refer Notes below)
Notes	**KPI 1 (Retention of Key Resources)** • If any of the following Key Resources are re-allocated within the Professional Services Contractor's organisation (or otherwise no longer involved in the Project) prior to the End Date, the +100 KPI score for KPI 1 will be reduced by the Drawback Score shown below for each occurrence to a minimum score of -100. • If a Key Resource leaves the Professional Services Contractor's organisation for any reason or takes leave (such as maternity leave) this will not be considered a failure to retain Key Resources and the Drawback Score will not be applied. Any replacement resource utilised while a Key resource is on leave will be subject to the conditions in this KPI. If the Key Resource returns to work and does not return to the Project, the Key Resource will be deemed to have been relocated within the Professional Services Contractor's organisation and the Drawback Score will be applied unless specific prior approval has been granted by the Principal's Representative.

Key Staff	Drawback Score
Design Manager	[redacted]
Cost Planner	
Constructability Manager	
Environmental Lead	
Service Planning Lead	
Geotechnical Lead	

	• The Professional Services Contractor may change a Key Resource with the prior approval of the Principal's Representative and a Drawback Score will not be applied. The Principal's approval may be withheld for any reason. • If the Principal's Representative requests a change in personnel for any reason, a Drawback Score will not be applied.

2.6 Train Operations Impacts – Gainshare Painshare Modifier

The Principal acknowledges there is limited work under this engagement that may impact Train Operations. However, adverse impacts to train operations have significant effect on both rail customers and TfNSW's reputation as a result such events are not acceptable to the Principal.

The Principal has an expectation of nil operational impacts as a result of the Professional Services Contractor's activities. However, should operational impacts occur as a result of the Professional Services Contractor's activities, the KRA Gainshare Pool will be reduced in accordance with the following:

Objectives • No unplanned disruptions to rail network operations	
Objective	**Completion of all works without interruption to train operations** Lag indicator based on the impact to train operations as a result of the Professional Services Contractor's activities.
KRA Gainshare Pool Modifier	For each operational incident or service interruption, the available KRA Gainshare Pool will fall from the current pool by [redacted] to a minimum of -[redacted] (Full Painshare)
Methods of data collection	**Completion of all works without interruption to train operations** Operational Impacts attributed to the Professional Services Contractor will be determined from the Incident Information Management System Report (IIMS Report. Operational Impacts will be recorded in an Operational Impacts Register maintained by the Principal. The final adjustment to the KRA Gainshare Pool will be determined by recording the number of operational incidents over the applicable 12 month measurement period.

Objectives • No unplanned disruption to rail network operations outside of working arrangements	
Objective	**Completion of all works without interruption to train operations**

	Lag indicator based on the impact on train operations as a result of the Professional Services Contractor's activities.
KRA Gainshare Pool Modifier	For each operational incident/interruption, the available KRA Gainshare Pool will fall from the current [redacted] pool by [redacted] to a minimum of [redacted] (Full Painshare)
Methods of data collection	**Completion of all works without interruption to train operations** Operational Impacts attributed to the Professional Services Contractor will be determined from the Incident Information Management System Report (IIMS Report) from Sydney Trains which indicates the operational impacts from incidents on the rail network. Operational Impacts will be recorded on an Operational Impacts Register maintained by the Principal. The final adjustment to the KRA Gainshare Pool will be determined by recording the number of operational incidents over the applicable 12 month period.
Aggregation	Gainshare/Painshare will be the lower of Gainshare/Painshare as a result of KPI performance or the Gainshare/Painshare as a result of Operational impacts. By way of example, if the Schedule and Staff Retention KRAs are +100 and +100 giving a total Gainshare of [redacted] but an operational incident has occurred, the final Gainshare would be [redacted] ([redacted] reduction for each Operational Incident). If the Schedule and Staff Retention KRAs are, -100 and -100 giving a total Painshare of [redacted] and there was an operational incident, the final Painshare would be [redacted]
Notes	• Operational Incident = one or more services delayed for 5 or more minutes as reported in the IIMS, or a service being required to skip stops or stopping short, or cancellation of a service. • Any Professional Services Contractor activities which results in the requirement for Sydney Trains to operate replacement bus services will result in maximum Painshare of [redacted].

2.7 Significant Safety Events – Gainshare Painshare Modifier

The Principal acknowledges there is limited work under this engagement that may result in a significant safety event. However, significant safety events have a substantial impact on TfNSW reputation and are not acceptable to the Principal.

The Principal has an expectation of no significant safety events as a result of the Professional Services Contractor's activities. However, should a significant safety event occur as a result of the Professional Services Contractor's activities, the KRA Gainshare Pool will be reduced in accordance with the following:

Objectives • No significant safety events	
Objective	**Completion of all works without a significant safety event** Lag indicator based on safety incidents that result in third parties taking action under relevant legislation.
KRA Gainshare Pool Modifier	For each significant safety event, the available KRA Gainshare Pool will fall from the curren[redacted] pool by[redacted] to a minimum o[redacted] (Full Painshare)
Methods of data collection	**Completion of all works without a significant safety event** All safety events/incidents will be recorded in safety register maintained by the Professional Services Contractor. The Professional Services Contractor shall notify the Principal of any safety event or incident that becomes a significant safety event (see below)
Aggregation	Gainshare/Painshare will be the lower of Gainshare/Painshare as a result of KPI performance or the Gainshare/Painshare as a result of significant safety events. By way of example, if the Schedule and Staff Retention KRAs are +100 and +100 giving a total Gainshare o[redacted] but significant safety event has occurred, the final Gainshare would be[redacted] reduction for each Operational Incident). If the Schedule and Staff Retention KRAs are, -100 and -100 giving a total Painshare of[redacted] and a significant safety event occurred, the final Painshare would be[redacted].

	If any safety event or incident is deliberately concealed or misreported, the [redacted] KRA pool will be irreversibly set to a Painshare of [redacted]
Notes	A significant safety event is any safety event or incident that occurs on site that results in: • An investigation or enquiry under the Rail Safety National Law, the Transport Safety Investigation Act 2003 (Cth) or the Passenger Transport Act 1900(NSW); or • Where the Professional Services Contractor is found liable under the WHS Legislation or Rail Safety Legislation; or • Legal action is commenced by a third party against TfNSW or the Professional Services Contractor

3. KRA performance reporting

The Professional Services Contractor's Monthly Report must report the periodic and cumulative performance metrics for all non-cost KRAs.

Attachment 1: Sample calculation

The KRA Pool $ =[redacted]f the annual Earned Value for each Portion being undertaken during the 12 month period commencing from the Commencement Date.

Notes:

Note 1: This sample calculation is the initial 12 month period and all Costs to Date are the actual costs expended during the first 12 months

Note 2: The calculation for the second 12 month period is identical Cost to Date is the cost to the end of the second 12 month period. The EV for the second 12 month period is the $\sum EV = [\sum EV_{24months}$ less $\sum EV_{12months}]$

Note 3: Forecast Final Cost (FFC) calculation to take **NIL** account of Painshare/Gainshare which may be applied in accordance with the agreement. (ie FFC is at full PSC rates and subcontractor costs including Fee%)

Portion No	Portion Duration	Portion ULF	Portion FFC	Costs to date	Earned Value*
1	12 mths	[redacted]	[redacted]	[redacted]	[redacted]
2	18 mths	[redacted]	[redacted]	[redacted]	[redacted]
3	24 mths	[redacted]	[redacted]	[redacted]	[redacted]
	TOTALS	[redacted]	[redacted]	[redacted]	[redacted]

* Calculation:

$$\text{Earned Value} = \frac{\text{(Costs to Date)}}{\text{(Final Forecast Cost)}} \text{ X (Upper Limit Fee)}$$

Total KRA Gainshare pool for the first annual period =[redacted] x [redacted] = [redacted]

Total Maximum Painshare for the first annual period =[redacted] x [redacted] = [redacted]

SCHEDULE 5 – NON-COST PERFORMANCE GAINSHARE/PAINSHARE REGIME

1. Focus of the Gainshare/Painshare Regime

1.1 The Gainshare/Painshare Regime provides a mechanism for aligning the objectives of the Professional Services Contractor with the Principal by sharing 'gain' or 'pain' depending on how the performance of the Professional Services Contractor compares with pre-agreed targets in non-cost KRAs.

1.2 Gainshare/Painshare payments will be determined in accordance with Schedule 4 and this Schedule 5, across all PSC Contracts, applied, calculated and paid on a yearly basis, commencing on the date of this Deed and expiring on the date on which, in respect of each PSC Contract, either all "Portions" have achieved "Completion" (as defined in the relevant PSC Contract) or the PSC Contract has been terminated. For the avoidance of doubt, each 'year' will commence on the date of this Deed (or the relevant anniversary of the date of this Deed) and expire one year later (rather than being a calendar year). Any part of the KRA Gainshare Pool or KRA Painshare Pool not utilised in any year will not be carried through to any future period.

2. Gainshare/Painshare for performance in non-cost KRAs

2.1 The maximum sum available for Gainshare in relation to non-cost KRAs ("KRA Gainshare Pool") will be calculated as:

KRA Gainshare Pool = ∑(EV Portion 1 + EV Portion 2 + EV Portion 3 +.....+ EV Portion N) X 2%

where EV = Earned Value.

An example illustrating the method of calculation of the KRA Gainshare Pool is included in Schedule 4.

2.2 The maximum sum available for Painshare in relation to non-cost KRAs ("KRA Painshare Pool") will be calculated as:

KRA Painshare Pool = ∑(EV Portion 1 + EV Portion 2 + EV Portion 3 +..... EV Portion N) X 2%

where EV = Earned Value.

An example illustrating the method of calculation of the KRA Painshare Pool is included in Schedule 4.

2.3 The KRA Gainshare Pool and KRA Painshare Pool will be allocated against the KRAs as shown in Schedule 4.

2.4 One or more KPIs will be used to measure performance in each of the KRAs, with performance measured on a scale of -100 to +100 using three nodes (the "Performance Nodes") as follows:

(a) a score of -100 corresponds to a complete performance failure in that KPI;

(b) a score of zero corresponds to a performance which matches the Principal's MCOS; and

(c) a score of +100 corresponds to an outstanding performance in that KPI. This Performance Node is not used for KPIs measuring performance in the Safety KRA.

2.5 A KRA performance score ("KPS") in respect of each KRA will be a number between -100 and +100 calculated as follows: KPS = Σ (KPI weight x KPI score) where:

(a) Σ means the total of the bracketed terms for each KPI used to measure performance in the relevant KRA;

(b) KPI weight = the weighting of a KPI used to measure performance in the relevant KRA, being a number between 0 and 100% (with the sum of such KPI weightings applicable to each KRA being 100%); and

(c) KPI score = the score between -100 and +100 (or -100 and 0 for KPIs relating to the safety KRA) determined by linear interpolation between the applicable Performance Nodes mentioned in paragraph 2.4 (with a score of zero representing MCOS).

2.6 Subject to modifications in accordance with Schedule 4 for the Operations KRA, Gainshare/Painshare payable for performance in non-cost KRAs will be calculated as follows:

(a) Gainshare will be payable to the Professional Services Contractor ("Gain$KRA") in respect of a KRA for which the KPS is between zero and +100, calculated as **Gain$KRA = KRA Gainshare Pool x KRA Share of KRA Gainshare Pool x KPS/100**; where:

(i) KRA Gainshare Pool = the sum calculated in accordance with paragraph 2.1;

(ii) KRA Share of KRA Gainshare Pool = the applicable percentage of KRA Gainshare allocated to that KRA in accordance with paragraph 2.3; and

(iii) KPS = the KRA performance score determined for that KRA in accordance with paragraph 2.5.

(b) Painshare will be payable by the Professional Services Contractor ("Pain$KRA") in respect of a KRA for which the KPS is between -100 and zero, calculated as **Pain$KRA = KRA Painshare Pool x KRA Share of KRA Painshare Pool x KPS/100**; where:

(i) KRA Painshare Pool = the sum calculated in accordance with paragraph 2.2;

(ii) KRA Share of KRA Painshare Pool = the applicable percentage of KRA Painshare allocated to that KRA in accordance with paragraph 2.3; and

(iii) KPS = the KRA performance score determined for that KRA in accordance with paragraph 2.5.

(c) Subject to modifications in accordance with Schedule 4 for the Operations KRA, total Gainshare/Painshare payable to or by the Professional Services Contractor in respect of performance in non-cost KRAs will be the aggregate total of Gainshare/Painshare sums in respect of each KRA determined in accordance with this paragraph 2.6.

(d) Details of KPIs, their weightings within each KRA, performance measurement methodologies, and performance targets corresponding to each applicable Performance Node are shown in Schedule 4.

3. Other rights not limited

3.1 The Professional Services Contractor acknowledges and agrees that nothing in Schedule 4 or this Schedule 5 (or any liability the Professional Services Contractor may have for Painshare) will limit or otherwise affect any other right of the Principal, including any right the Principal may have to damages for breach of this Deed or any PSC Contract.

SCHEDULE 7 – CONFIDENTIALITY DEED POLL

Standing Offer Deed Number: ISD-18-7725

Professional Services Contractor: Mott MacDonald Australia Pty Limited & SMEC Australia Pty Limited

("Professional Services Contractor")

Confidentiality Deed Poll made at L10, 383 Kent St, Sydney **on:** 09/07/2019

In favour of:

Transport for NSW ABN 18 804 239 602

("Principal")

Background

The Principal and the Professional Services Contractor entered into the Standing Offer Deed numbered above ("**Standing Offer Deed**").

It is a requirement of the Standing Offer Deed that the Professional Services Contractor sign a confidentiality deed poll.

The Principal has requested and the Professional Services Contractor has agreed, to execute this deed poll.

Confidential Information

1. *Confidential Information* is:

   (a) any information (including, without limitation, information contained in proposals, designs, tenders, reports, advices, minutes of meetings or correspondence) in any form which has come to the knowledge of the Professional Services Contractor by any means and which has been or will be given to the Professional Services Contractor either directly or indirectly by the Principal or by a person on behalf of the Principal or by a proponent or tenderer; and

   (b) any material produced by the Professional Services Contractor under the Standing Offer Deed,

   but does not include:

   (c) information which, at the time of disclosure, was already in the public domain;

   (d) information which, subsequent to disclosure, enters the public domain except through breach of this deed poll or any other obligation of confidence; or

   (e) information which the Professional Services Contractor is required to disclose by law or the listing rules of the Australian Securities Exchange.

   In the event of uncertainty as to whether:

   (a) any information is Confidential Information; or

   (b) any information is lawfully within the public domain,

   that information is taken to be Confidential Information and the Confidential Information is taken to be not within the public domain, unless the Professional Services Contractor is informed by the Principal in writing to the contrary.

Warranty and covenant

2. The Professional Services Contractor warrants and covenants that it will treat and keep the Confidential Information in the strictest of secrecy and confidentiality and expressly acknowledges and agrees that the Confidential Information is of a secret and confidential nature.

3. The Professional Services Contractor warrants and covenants that it will do everything reasonably necessary to protect and maintain the confidentiality of the Confidential Information.

4. The Professional Services Contractor may not disclose to any person other than:

   (a) the Principal; and

   (b) a person approved by the Principal in writing (which approval may be given or withheld in the Principal's absolute discretion and may be subject to conditions, including a condition that the relevant person sign a Confidentiality Deed Poll in the form of this document in favour of the Principal, subject to such amendments as the Principal may require),

   that the Confidential Information has been made available to the Professional Services Contractor or that discussions or negotiations are taking place concerning the Standing Offer Deed.

5. The Professional Services Contractor undertakes:

   (a) to protect and safeguard Confidential Information against unauthorised publication or disclosure;

   (b) not to use Confidential Information for any reason or purpose except as directed by the Principal; and

   (c) to comply with any security measures in connection with Confidential Information that may be required by the Principal.

Authorised disclosure

6. If the Principal approves in writing the disclosure of Confidential Information, the Professional Services Contractor may disclose that Confidential Information in accordance with the terms of that approval.

Return of Confidential Information

7. If the Principal requests it, the Professional Services Contractor must:

   (a) promptly return to the Principal all documents and other physical records of Confidential Information in its possession, custody, power or control;

   (b) if any Confidential Information in the possession, custody, power or control of the Professional Services Contractor is in a form that cannot be detached from valuable equipment (including, but not limited to, Confidential Information stored by electronic, electromagnetic or other means), permanently delete and erase the Confidential Information; and

   (c) provide a statutory declaration to the Principal confirming that all those records and any copies have been returned or deleted and erased, as appropriate.

Continuing obligation

8. The obligations of the Professional Services Contractor under this deed poll continue after the completion or termination of:

   (a) the Standing Offer Deed;

   (b) each 'PSC Contract' (as defined in the Standing Offer Deed); and

   (c) the Professional Services Contractor's employment, engagement or assignment with the Principal.

Injunctive relief

9. In the event of a breach by the Professional Services Contractor of the Professional Services Contractor's obligations under this deed poll, then in addition to, and without prejudice to, any other remedy that the Principal may have, the Principal will be entitled to seek and obtain injunctive relief in any court of competent jurisdiction.

Further assurances

10. The Professional Services Contractor must do all things and execute all documents, including but not limited to executing any agreements of assignment, or agreements under hand or seal, which may be required by the Principal to give effect to the provisions of this Confidentiality Deed Poll at a later date.

Non-waiver

11. The failure of the Principal to enforce any of the provisions of this deed poll or the granting at any time of any other indulgence is not to be construed as a waiver of that provision or of the right of the Principal to enforce that or any other provision at a later date.

Jurisdiction

12. This deed poll is governed by and subject to the laws of New South Wales.

No revocation

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

Executed by **Mott MacDonald Australia Pty Limited ABN 13 134 120 353,** by its attorney and company director:

[redacted]

Name of attorney
pursuant to power of attorney
dated 19 October 2017:

[redacted]

Signature of witness

[redacted]

Name of witness
(BLOCK CAPITALS)

[redacted] 09/07/2019

Signature of attorney Date

By executing this document, the attorney states that the attorney has received no notice of revocation of the power of attorney

Executed by **Mott MacDonald Australia Pty Limited ABN 13 134 120 353**, by its attorney:

[redacted]

Name of attorney
pursuant to power of attorney
dated 19 October 2017:

[redacted]

Signature of witness

[redacted]

Name of witness
(BLOCK CAPITALS)

[redacted]

09/07/2019

Signature of attorney
By executing this document, the attorney states that the attorney has received no notice of revocation of the power of attorney

Date

Executed as a deed poll in accordance with section 127 of the *Corporations Act 2001* by **SMEC Australia Pty Limited (ABN 47 065 475 149):**

Signature of Director

Signature of Director/Secretary

Print Name
(block letters)

Print Name
(block letters)

SCHEDULE 7 – CONFIDENTIALITY DEED POLL

Standing Offer Deed Number: ISD-18-7725

Professional Services Contractor: Mott MacDonald Australia Pty Limited & SMEC Australia Pty Limited

("Professional Services Contractor")

Confidentiality Deed Poll made at 20 BERRY ST, NORTH SYDNEY **on:** 9/7/2019

In favour of:

Transport for NSW ABN 18 804 239 602

("Principal")

Background

The Principal and the Professional Services Contractor entered into the Standing Offer Deed numbered above (**"Standing Offer Deed"**).

It is a requirement of the Standing Offer Deed that the Professional Services Contractor sign a confidentiality deed poll.

The Principal has requested and the Professional Services Contractor has agreed, to execute this deed poll.

Confidential Information

1. *Confidential Information* is:

   (a) any information (including, without limitation, information contained in proposals, designs, tenders, reports, advices, minutes of meetings or correspondence) in any form which has come to the knowledge of the Professional Services Contractor by any means and which has been or will be given to the Professional Services Contractor either directly or indirectly by the Principal or by a person on behalf of the Principal or by a proponent or tenderer; and

   (b) any material produced by the Professional Services Contractor under the Standing Offer Deed,

   but does not include:

   (c) information which, at the time of disclosure, was already in the public domain;

   (d) information which, subsequent to disclosure, enters the public domain except through breach of this deed poll or any other obligation of confidence; or

   (e) information which the Professional Services Contractor is required to disclose by law or the listing rules of the Australian Securities Exchange.

   In the event of uncertainty as to whether:

   (a) any information is Confidential Information; or

   (b) any information is lawfully within the public domain,

   that information is taken to be Confidential Information and the Confidential Information is taken to be not within the public domain, unless the Professional Services Contractor is informed by the Principal in writing to the contrary.

Warranty and covenant

2. The Professional Services Contractor warrants and covenants that it will treat and keep the Confidential Information in the strictest of secrecy and confidentiality and expressly acknowledges and agrees that the Confidential Information is of a secret and confidential nature.

3. The Professional Services Contractor warrants and covenants that it will do everything reasonably necessary to protect and maintain the confidentiality of the Confidential Information.

4. The Professional Services Contractor may not disclose to any person other than:

   (a) the Principal; and

   (b) a person approved by the Principal in writing (which approval may be given or withheld in the Principal's absolute discretion and may be subject to conditions, including a condition that the relevant person sign a Confidentiality Deed Poll in the form of this document in favour of the Principal, subject to such amendments as the Principal may require),

   that the Confidential Information has been made available to the Professional Services Contractor or that discussions or negotiations are taking place concerning the Standing Offer Deed.

5. The Professional Services Contractor undertakes:

   (a) to protect and safeguard Confidential Information against unauthorised publication or disclosure;

   (b) not to use Confidential Information for any reason or purpose except as directed by the Principal; and

   (c) to comply with any security measures in connection with Confidential Information that may be required by the Principal.

Authorised disclosure

6. If the Principal approves in writing the disclosure of Confidential Information, the Professional Services Contractor may disclose that Confidential Information in accordance with the terms of that approval.

Return of Confidential Information

7. If the Principal requests it, the Professional Services Contractor must:

   (a) promptly return to the Principal all documents and other physical records of Confidential Information in its possession, custody, power or control;

   (b) if any Confidential Information in the possession, custody, power or control of the Professional Services Contractor is in a form that cannot be detached from valuable equipment (including, but not limited to, Confidential Information stored by electronic, electromagnetic or other means), permanently delete and erase the Confidential Information; and

   (c) provide a statutory declaration to the Principal confirming that all those records and any copies have been returned or deleted and erased, as appropriate.

Continuing obligation

8. The obligations of the Professional Services Contractor under this deed poll continue after the completion or termination of:

   (a) the Standing Offer Deed;

   (b) each 'PSC Contract' (as defined in the Standing Offer Deed); and

   (c) the Professional Services Contractor's employment, engagement or assignment with the Principal.

Injunctive relief

9. In the event of a breach by the Professional Services Contractor of the Professional Services Contractor's obligations under this deed poll, then in addition to, and without prejudice to, any other remedy that the Principal may have, the Principal will be entitled to seek and obtain injunctive relief in any court of competent jurisdiction.

Further assurances

10. The Professional Services Contractor must do all things and execute all documents, including but not limited to executing any agreements of assignment, or agreements under hand or seal, which may be required by the Principal to give effect to the provisions of this Confidentiality Deed Poll at a later date.

Non-waiver

11. The failure of the Principal to enforce any of the provisions of this deed poll or the granting at any time of any other indulgence is not to be construed as a waiver of that provision or of the right of the Principal to enforce that or any other provision at a later date.

Jurisdiction

12. This deed poll is governed by and subject to the laws of New South Wales.

No revocation

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

Executed by **Mott MacDonald Australia Pty Limited ABN 13 134 120 353,** by its attorney and company director:

Name of attorney pursuant to power of attorney dated 19 October 2017:	Signature of attorney Date By executing this document, the attorney states that the attorney has received no notice of revocation of the power of attorney
Signature of witness	
Name of witness (BLOCK CAPITALS)	

Executed by **Mott MacDonald Australia Pty Limited ABN 13 134 120 353**, by its attorney:

Name of attorney
pursuant to power of attorney
dated 19 October 2017:

Signature of attorney
By executing this document, the attorney states that the attorney has received no notice of revocation of the power of attorney

Date

Signature of witness

Name of witness
(BLOCK CAPITALS)

Executed as a deed poll in accordance with

[redacted]

Print Name
(block letters)

[redacted]

Signature of Director/Secretary

[redacted]

Print Name
(block letters)

Attachment 1 – Services Brief

Services Brief (Revision 2 dated 6 May 2019)

More Trains More Services Program

ISD-18-7725 – Technical Advisor

Document #:	6172531_14
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1 INTRODUCTION

1.1 GENERAL

1.1.1 Transport for NSW (TfNSW)

Transport for NSW is the lead agency of the NSW Transport cluster. Our role is to lead the development of a safe, efficient, integrated transport system that keeps people and goods moving, connects communities and shapes the future of our cities, centres and regions.

We are responsible for strategy, planning, policy, regulation, funding allocation and other non-service delivery functions for all modes of transport in NSW, including road, rail, ferry, light rail, point to point, regional air, cycling and walking.

We focus on improving the customer experience and contract public and private operators to deliver customer-focused transport services on our behalf.

We also lead the procurement of transport infrastructure and oversee delivery through project delivery offices and industry delivery contractors. This Services Brief describes the Services required from the Technical Advisor to produce a variety of business documents and design documents for capital investment to deliver service uplifts to the heavy rail network. It sets out the scope, performance and technical requirements of these Services.

1.1.2 Infrastructure and Place (IP)

Infrastructure and Place (**IP**) Division within TfNSW transforms strategy into transport networks and services, efficiently and effectively. It also provides:

- Integrated end-to-end planning;
- Design and development of transport assets; and
- Delivery and operations of transport assets.

1.1.3 Rail Program Delivery (RPD)

RPD is the branch within IP that implements NSW transport strategy by creating and program managing a rolling 10-year rail development plan and prioritised investment program for rail services, fleet and infrastructure – the Medium Term Rail Development Plan (**MTRDP**). The MTRDP ensures that the suburban and intercity heavy rail network meets projected customer demands and requirements through enabling the transformation of priority lines to high capacity, turn up and go rail services.

The future network is expected to increase public transport mode share and meet customer requirements. The MTRDP complements long-term whole of NSW Government infrastructure plans and the work of the Greater Sydney Commission (**GSC**).

1.2 DEFINITIONS

Term	Definition
MTMS	The "More Trains More Services" program of works.
MTRDP	The "Medium Term Rail Delivery Plan" which is the rolling 10-year plan for heavy rail services for which RPD is responsible for delivering.
RPD	Has the meaning given in section 1.1.3.
Works	The works to be constructed or otherwise created as part of the Project

1.3 ABBREVIATIONS

Term	Definition
BMS	Building management systems.
BRS	Business requirements specification.
CCTV	Closed circuit television.
D&SRP	Design and sustainability review panel.
EACS	Electronic access control system.
EPA	NSW Environment Protection Authority.
EWIS	Emergency warning & intercommunication system.
FM CCB	Facilities management configuration control board.
HMI	Human machine interface.
HV	High voltage.
LAN	Local area network.
LLPA	Long line public address.
LV	Low voltage.
OEH	NSW Office of Environment and Heritage.
OHW	Overhead wiring.
OHWS	Overhead wiring structures.
PA	Public address.
PEA	Preliminary environmental assessment.
P&P	Pit and pipe.
RAATM	Requirements analysis allocation traceability matrix.
RFI	Request(s) for information.
SCADA	Systems control and data acquisition.
SPI	Station passenger information.
SRS	Systems requirements specification.
SWG	Station working group.
TPH	Trains per hour.
ULX	Under line crossing.
VMS	Variable message screen.
WBS	Work breakdown structure.

1.4 PROGRAM OVERVIEW AND OBJECTIVES

The MTMS is a comprehensive plan that will deliver world-class services for all rail customers in NSW.

Over the past seven years patronage on the existing heavy rail network has grown by almost a third. Sydney's train network carries more than half of all public transport customers. As Sydney continues to grow, there will be more demand for services. New technology and infrastructure is needed to upgrade the network to meet the demands of our modern city.

The MTMS is already delivering a significant boost to rail services. Future stages of MTMS will harness digital systems technology to operate trains closer together with increased precision. Combined with infrastructure upgrades and new fleet, lines will be untangled, making their operations simpler. This will enable us to deliver more services more reliably to customers travelling on the rail network.

Delivering this program means we will be able to offer customers on the busiest lines through Sydney a turn up and go service throughout most of the day. The digital systems technology will increase capacity on each line up to 24 trains an hour, so customers can expect a train every two and a half minutes during peak periods. This will bring Sydney's transport system in line with other major cities around the world.

The Rail Program Delivery branch of Infrastructure and Place Division are leading the development and delivery of the MTMS.

1.4.1 Program Stages

The MTMS is being delivered in a number of discrete stages. Each stage will address a defined geographical area for the purpose of infrastructure upgrades and will be aligned to a new timetable release.

The "MTMS Stage 1" works have been completed and the "MTMS Stage 2" works are at the beginning of the delivery phase.

The Services relate to future More Trains More Services stages (i.e. stages other than MTMS Stage 1 and Stage 2), plus any technical input required to enable future stages.

The Technical Advisor must provide technical support and design for the future phases of MTMS.

1.5 OUTLINE SCOPE OF SERVICES

1.5.1 Overview

The Technical Advisor must carry out the development/planning phases and early delivery phase to undertake optioneering, site investigations, desktop studies, transport modelling, prepare feasibility, definition and concept/reference designs, high level constructability staging, costing and estimating and other supporting technical services to assist with the production of deliverables for the following:

1. Feasibility Studies;
2. Strategic Business Case Support;
3. Definition Designs;
4. Final Business Case Support;
5. Phase 1 Delivery - Concept Design/Reference Design;
6. Phase 2 Delivery – Procurement assistance and delivery support;
7. Associated Investment Assurance and Configuration Management Gate Submissions.

The Technical Advisor must provide ongoing technical support during the procurement stage and support the Construction Contractor's detailed designers to allow efficient handover of the designs.

The Technical Advisor must act as an AEO for the planning and concept design phases and will be responsible for responding to RFIs during the procurement of Construction Contractors and the development of target budgets.

Where undertaking a design package, the Technical Advisor must prepare the associated systems engineering deliverables in accordance with relevant ASA standards and as defined in the "More Trains More Services Systems Assurance Plan".

1.5.2 The Services

The initial Portions are outlined in Appendix 1.

The Services include (without limitation):

- Signalling design;
- HV and traction power design;
- LV distribution and lighting design;
- Earthing and bonding design;
- Permanent way design;
- Civil engineering and geotechnical design;
- Survey;
- Structural components such as bridges, retaining walls and other designs;
- Stations and station systems designs;
- Rolling stock specification;
- Fire engineering design;
- Costing and estimating including cost planning services;
- Value capture and land use analysis;

- SCADA & telecommunications design;
- Noise mitigation proposals;
- Architectural presentation of the proposal;
- People movement plan;
- Traffic engineering;
- Systems engineering;
- Safety assurance;
- Sustainability;
- Site investigations;
- Pedestrian modelling;
- Rail service planning; and
- Transport demand modelling.

Other specialist technical services may be required for the performance of the Services.

1.5.3 Full Area Coverage

The Technical Advisor must check the condition of the existing rail systems is able to support the Project's systems and operational upgrade(s). This shall extend 600m either side of the Project limits as determined during the performance of the services.

The Technical Advisor must review, assess and provide design for modification of any part of the existing rail systems not performing to standards required to satisfy the operational requirements and objectives of the Project.

All civil works, stations, infrastructure, public utilities and ancillary structures etc affected by the project rail system scope form part of the Project. In respect of all Portions, The Technical Advisor must design and assess the removal of all existing infrastructure which becomes redundant as a result of the Project in the "Project Design Report".

1.6 REFERENCE INFORMATION

In respect of all Portions, the Technical Advisor must obtain any existing information that has not been provided by the Principal, but is necessary for development of the design or otherwise necessary for the performance of the Services.

1.7 DESIGN DELIVERY

1.7.1 Design Packaging

In respect of all Portions, feasibility, definition, and concept designs for the Project (or each relevant part) must be submitted as separate design packages.

1.7.2 Design Deliverables

For each design stage, the Technical Advisor must submit the following design documentation unless agreed otherwise with the Principal (Table 1).

Table 1 General Deliverables

Deliverables	Section in Services Brief
Project Design Report	3.11
"P90" Cost Estimate	3.7
Project General Arrangement & Design Drawings	3.11
Configuration Change Management Documents	3.13
Value Engineering Report	3.12.1
System Integration Plan	3.13
Requirements Compliance Review (of project functional requirements)	3.12.2
System Safety Plan including any documents as specified within the System Safety Plan, including Human Factors Integration Plan (if identified).	3.12.3
Project Risk Register	3.12.4
Asset Maintenance Strategy	3.12.5
Asset Operations Strategy	3.12.6
Noise and Vibration Assessment Report	3.12.7
Sustainability Report including	
• Assessment of Sustainability Initiatives Report	3.12.8
• Sustainability Strategy Report	3.12.9
• Climate Change Risk Assessment Report	3.12.10
Preliminary Environmental Assessment	3.2
Hydrology & Drainage Report	9.4.2
Hydrology & Drainage Investigations Specification	9.4.1
Condition Assessment Report	9.4.3
Earthing and Bonding Hazard Identifications and Safety Risk Assessment Report	9.8

1.8 INTERPRETATION

For the avoidance of doubt (except to the extent otherwise expressly stated):

(a) the Technical Advisor must ensure that all provisions of this document are satisfied;

(b) without limiting the above, where this document provides that a particular act or thing must be done, is not to be done or must not be done, or otherwise specifies particular requirements, those acts or things must be done or must not be done (as applicable), and those requirements must be satisfied, by the Technical Advisor; and

(c) where this document provides that the Technical Advisor must give or submit a notice, document or any other information, such notice, document or other information must be given or submitted by the Technical Advisor to the Principal's Representative.

Unless the context otherwise requires, any reference in this Services Brief to an "existing" item or circumstances refers to those items or circumstances existing from time to time, including after the date of this Agreement.

2 PROJECT TEAM

2.1 TEAM ESTABLISHMENT

The Technical Advisor must use an integrated team management approach in which the design team members work together with the Principal, the Principal's internal specialists, other Technical Advisors, stakeholders and other interfacing parties to deliver the Services. The Technical Advisor must, when required by the Principal (or otherwise necessary for the proper performance of the Services), work co-operatively with the local government and other key stakeholders to deliver jointly owned outcomes while respecting each other's distinct but compatible interests.

The Technical Advisor must (in respect of all Portions):

- provide, lead, organise, control and coordinate the resources necessary to perform the Services;
- ensure the Key People are available so the Services are provided in a timely manner;
- ensure all people and parties in the Technical Advisor's team fully understand and fulfil their role to successfully deliver the Services;
- ensure Key People have adequate support and contingencies are in place in the event that Key People need to be replaced;
- develop, identify, implement and update, (as part of the Technical Advisor's "Services Management Plan" and its implementation) the lines of communication between the participants in the delivery of the Services;
- ensure required inputs are clearly identified (e.g. "Cost Planner" and "Constructability Consultant") and managed;
- provide for interface management activities and resolution processes across the various disciplines with internal specialists, other service providers and stakeholders associated with the Project; and
- ensure inputs required from other technical advisors and services providers are provided in the correct format and in a timely manner.

2.2 COMPETENCE FOR DESIGN

2.2.1 AEO Requirement

The Technical Advisor warrants that it is (and will at all times remain) an AEO and that all engineering tasks undertaken as part of the Services will be undertaken under its authority as an AEO in accordance with ASA Requirements. The Principal reserves the right to notify the ASA of any Defect in the performance of the Services that relates to any ASA Authorisation (without limiting the Principal's other rights and the Technical Advisor's obligations in respect of Defects under the Agreement).

The Technical Advisor must ensure that it has a competency assessment and certification process by which it identifies persons as having sufficient skills and knowledge to undertake design tasks. The Technical Advisor must maintain the following documentation and provide them to the Principal upon request:

(a) evidence of its AEO engineering services matrix, as issued by the ASA, that covers the requirements of this Services Brief;

(b) evidence of application of its competency assessment process for personnel detailed in the organisational chart; and

(c) a schedule which details personnel who have been assessed as competent, the tasks to be performed by each person, and evidence each individual has been assessed as competent to perform their nominated tasks. This schedule must be maintained as current until completion of the Services.

2.2.2 Personnel Changes

Without limiting the Technical Advisor's other obligations under this Agreement, where there are changes in personnel, the Technical Advisor must submit evidence of competency for the replacement personnel.

2.3 OTHER SERVICE PROVIDERS

The Principal has and will continue to engage other service providers to provide advice in relation to the Project. The Technical Advisor must:

- co-ordinate and interface with other service providers for the purpose of defining the Technical Advisor's deliverables;
- provide both early and progressive inputs to other service providers; and
- integrate advice and outputs from other service providers into the delivery of the Technical Advisor's deliverables.

The Technical Advisor must work collaboratively with other service providers who have been or will be appointed to provide services for the Project (which may be updated by the Principal from time to time to include other service providers). See Table 2 for more details.

Table 2 Other Service Providers

Professional Service Providers	Description
Other Professional Services Providers for MTMS	The Principal may engage various services providers to provide a range of professional guidance and advice to the Principal including: • Probity and Tender Management Services; • Property Services; • Heritage Impact Advice and Services;

	• Independent Estimator Services; • Independent Constructability Services; • Legal Advice and Services; • Business Case drafter; • Financial Auditor; • Independent Expert; and • Specialist Technical Advice and Services.

2.4 STAKEHOLDERS

The Technical Advisor must provide assistance and support to the Principal for interfaces with internal and external stakeholders as necessary to achieve satisfactory resolution of interface matters. Where the issue is related to design, the Technical Advisor must propose all relevant stakeholders' (such as Sydney Trains, NSW Trains, Sydney Metro, Roads and Maritime Services, National Parks, etc.) demarcations and responsibilities (for review and approval by the Principal). The Principal will use reasonable endeavours to arrange meetings with internal stakeholders from TfNSW programs such as "Power Supply Upgrade" (**PSU**), "Digital Systems" (**DS**) and "Transport Access Program" (**TAP**). Contact with external stakeholders by the Technical Advisor must be undertaken only following advice and agreement from the Principal.

The Technical Advisor must (in respect of all Portions) provide interface management, assistance and support with stakeholders which will include, but not be limited to:

- arrangement of meetings and recording of meeting minutes;
- presentations, production of design reports, technical papers and drawings; and
- participation in stakeholder design reviews.

2.5 STATION WORKING GROUP AND FACILITIES MANAGEMENT CCB

The "Station Working Group" (**SWG**) and "Facilities Management Configuration Control Board" (**FM CCB**) are comprised of representatives of TfNSW, Sydney Trains and NSW Trains and other stakeholders, including those involved in station operations, management, safety and maintenance.

The SWG and or the FM CCB may provide (subject matter expert) input to the design process. Such input may include confirmation of the station and building elements of the functional requirements for the listed projects and reviews of the design.

The Technical Advisor must do all things necessary to assist the proper functioning of the SWG and FM CCB including by:

- providing presentations to the SWG and FM CCB, as instructed by the Principal; and
- preparing and providing to the Principal such material as the Principal may reasonably require for any meeting of the SWG and FM CCB.

3 GENERAL DELIVERABLE OBLIGATIONS & DOCUMENTATION

3.1 GENERAL DESIGN OBLIGATIONS

The Technical Advisor must develop the design, provide documents, and carry out all related tasks in accordance with this Services Brief for all Portions.

The Technical Advisor's general design obligations in respect of all Portions are to (without limitation):

- provide a high performance and highly skilled design team, which will work collaboratively with the Principal, the Principal's professional service providers and key stakeholders to design and monitor the delivery of the Services;
- ensure all designs are undertaken by or under the authority of the Technical Advisor (as an AEO) as authorised by the ASA;
- ensure nominated designers have and maintain all required competencies issued by the Technical Advisor (as the AEO);
- produce fully integrated designs, with all interfaces managed and coordinated with all relevant parties including the different disciplines, other Principal's professional service providers, internal TfNSW specialists and stakeholders;
- produce designs that incorporate and comply with all necessary functional, operational, environmental, economic, whole of life, social, property, aesthetic and sustainability requirements including the investigation of options to minimise adverse impacts, particularly to vegetation;
- provide high quality services and design documentation;
- ensure the design of works is comparable, compatible and aligns with similar works throughout the existing rail network and with other interrelated projects;
- ensure during the design process that design documentation complies with all relevant standards and is continually updated to include requirements of revised standards;
- produce key calculations; and
- verify design to ensure it meets the requirements of this Services Brief and other parts of this Agreement.

3.2 PLANNING AND ENVIRONMENT

The Technical Advisor must utilise the services of suitably qualified environmental planning personnel to compile a desktop preliminary environmental impact assessment (**PEA**) using information available in reports provided by the Principal and available databases/resources. The PEA will inform the future environmental impact assessment and planning approval. This is assessed and obtained in accordance with the *Environmental Planning and Assessment*

Act 1979 (NSW), the State Environmental Planning Policy (State and Regional Development) 2011 and the State Environmental Planning Policy (Infrastructure) 2007.

The Technical Advisor must ensure that the PEA:

- identifies the potential planning approval frameworks/pathways for the Project (or relevant part) including any necessary referrals and additional approvals required;
- provides a "Preliminary Ecological Assessment Report" that focusses on potential impacts to any endangered ecological communities (**EECs**).
- provides advice and other relevant support/input into the design development process in collaboration with other disciplines of the project team, with the objective of minimising the environmental impact of the project designs; and
- identifies sustainability initiatives to be applied to the project's design, construction, operations and ensure the initiatives are practical and applicable.

The Technical Advisor must as minimum (in respect of all Portions):

- identify and comply with the relevant statutory requirements, government policies and guidelines applicable to the Project;
- identify and comply with relevant requirements of the "IP Environmental Management System" in consultation with the "IP Planning and Environment Team";
- clearly specify the required processes (including vegetation offsetting, referrals and likely additional approvals required etc.) and anticipated timeframe to obtain the planning approval for the Project (or relevant part);
- identify the key potential planning and environmental risks and associated impacts for the Project (or relevant part), including any areas of sensitivity or conflict with other uses (including from any Project components, for example vent shafts, impacts to threatened species/ecological communities);
- identify the key opportunities and mitigation options to avoid or minimise environmental impacts of the Project (or relevant part) and provide ongoing advice around this to the project team; and
- identify any specialist studies that are likely to be required (e.g. ecological, noise and vibration, heritage, visual, etc.) as part of the planning approval process for the Project (or relevant part).

The Technical Advisor must also investigate and document the following environmental aspects and impacts in further detail in respect of all Portions:

- provide vegetation mapping of the affected project corridor areas. The mapping exercise must include a desktop assessment of existing available data sources (e.g. aerial photography, vegetation mapping, threatened species/endangered ecological community maps/records) including but not limited to Local Government, Sydney Trains and Office of Environment and Heritage sources etc.;
- undertake a desktop assessment, including a review of all Aboriginal Heritage Information Management System data within 200m of the area to which the Project

(or relevant part) relates, to document any Aboriginal artefacts/places/potential archaeological deposits within or near the boundaries of the Project (or relevant part);

- undertake a desktop assessment, including a review of Sydney Trains, local, state and national heritage databases, to document any European heritage within or near the boundaries of the Project (or relevant part);
- identify sensitive receivers within 500 metres of the boundaries of the Project (or relevant part) including those located in close proximity to vent stacks (if applicable);
- identify potential impacts on or access requirements for any private land; and
- undertake site investigations for the above issues for any areas identified as having medium to high sensitivity in accordance with Appendix 3.

Where relevant specialist reports have been compiled, the Technical Advisor must ensure that the PEA provides a brief summary of those reports and a reference to further information in relation to those reports (including the location of those reports and further information referred to in those reports). Specialist reports include those specified in this Service Brief such as noise and vibration, contamination, hydrology, urban design and landscaping.

3.3 SUSTAINABILITY IN DESIGN

The Technical Advisor must utilise the services of suitably qualified sustainability personnel. The Technical Advisor must consider sustainability within every aspect of design. The Technical Advisor must consult with the TfNSW Associate Director, Sustainability, Planning and Development approximately one week after project inception, and prior to submission of the draft and final project definition design. The Technical Advisor must consider and address sustainability in the design reports responding to design issues as noted by the TfNSW Associate Director, Sustainability, Planning and Development.

3.4 PROPERTY

The Technical Advisor is responsible for interfacing with TfNSW's internal property specialist throughout the design process to review and minimise impact on the temporary and permanent property acquisitions where possible in respect of all Portions.

The Technical Advisor must develop the design in order to resolve risk on the temporary and permanent property encroachment footprint, particularly at private property, National Parks, or other sensitive areas as instructed by the Principal in respect of all Portions.

As part of the design process, TfNSW's property specialist (as nominated by the Principal) may review the design and advise of areas where impact is undesirable, for the Technical Advisor to implement mitigation measures. If required by the Principal, the Technical Advisor must undertake optioneering and value engineering (refer to Section 3.11.1) with the Principal and the cost planner in order to mitigate undesired property impacts.

The Technical Advisor must liaise with TfNSW's property specialist, identify and document any issues related to temporary and permanent property acquisition or encroachment for the delivery of the Project.

3.5 DESIGN & SUSTAINABILITY REVIEW PANEL

The Principal has established an independent Design and Sustainability Review Panel (**D&SRP**). The D&SRP comprises the Government Architect who chairs the meeting, TfNSW's Principal Manager - Urban Design, and the Principal's Representative along with selected internal or external specialists.

The function of the D&SRP is to review and assess whether the design proposals are consistent with the overall project design objectives and State and Local Government master planning requirements.

The Technical Advisor must consult with the D&SRP and/or internally with TfNSW Principal Manager - Urban Design at the timeframes agreed with the Principal and prior to submission of the draft and final project design. The Technical Advisor must do all things necessary to progress the design. This includes but is not limited to:

- presenting and explaining the design to the D&SRP; and
- responding to design issues as noted by the Principal.

3.6 CONSTRUCTABILITY MANAGEMENT

The Technical Advisor must engage a constructability consultant, who specialises in railway construction, possession planning and staging, to provide input and work collaboratively with the Technical Advisor to develop the Technical Advisor's design. The constructability consultant is not required to be an AEO, and must comprise a multi-disciplined team to provide input and challenge the Technical Advisor's design in terms of operability, maintainability, construction methodologies, Project program, staging program risks, interfaces in all disciplines of work related to civil works, station works and rail systems in respect of all Portions.

In conjunction with the Technical Advisor's Project design, the Technical Advisor must ensure that the constructability consultant develops and documents independent reports identifying constructability, staging, construction access requirements, program risks, interfaces, effects of commissioning and other related issues. The Technical Advisor must ensure that the documents are submitted to the Principal in an integrated and comprehensive manner, including by ensuring there has been a review carried out by the constructability consultant and the Technical Advisor, while avoiding double up of coverage. The Technical Advisor must ensure that a separate constructability report is prepared by the constructability consultant, and is included as an Appendix to the Technical Advisor's Project Design Report (at the relevant design stage).

The Technical Advisor must (in respect of all Portions):

- manage constructability workshops with the Principal and the constructability consultant to develop the most feasible and practical delivery strategy at the commencement and throughout the design;
- manage coordination meetings between the Principal and the constructability consultant to discuss design progress, design philosophies, design options and constructability issues;

- provide design and reports to the constructability consultant in a timely fashion for review and incorporation of feedback in order to meet submission deadlines;
- freely provide materials (electronic copies of drawings, documentation and reference documents) to the constructability consultant for compilation of the constructability consultant's submissions;
- meet with stakeholders on construction and operations related issues with the Principal and the constructability consultant;
- incorporate feedback from the constructability consultant in developing the Project design;
- collaborate with the constructability consultant to identify enabling works which would fast-track commencement of site specific construction works; and
- collaborate with and advise the constructability consultant on construction methodology development.

3.7 PROJECT COST PLANNER

The Technical Advisor must appoint a cost planner to establish and manage preparation of the "P90" cost estimate at each MTMS "Program Stage" including whole of life / ongoing maintenance costs as part of the Services for each Portion and otherwise in accordance with this section 3.7. The estimates must be prepared so that they are consistent with Infrastructure and Place Division cost estimating standards and with the appropriate level of detail required to support each Program Stage business case. Technical Advisor must ensure that the cost planner coordinates the development of the quantitative cost risk model for contingency calculations. The cost planner shall develop a Cost Plan for each MTMS program Stage as agreed with the Principal.

The Technical Advisor is responsible for managing and liaising with the cost planner to deliver a project design sufficient for the "P90" cost estimate and to enable the cost planner to develop high level costing during the value engineering and design optioneering phases of the Project.

The cost planner must (in respect of all Portions):

- provide strategic or final (depending on the stage of the Portion) business case "P90" Whole of Life cost estimate including client costs, property, contingency and escalation;
- produce all submitted business case estimates in "Cost X" with associated information for submission to TfNSW;
- provide cashflows for all estimate stages to appropriate detail for forecasting/budgeting purposes;
- develop contingency values through workshops utilising @RISK software with the Principal and the MTMS project team;
- liaise with the Principal and MTMS project team and provide cost changes between stages to INSW/PMO and MTMS management for assurance reviews;

- assist with Tender Payment Schedule, Asset, WBS and CBS structure development; and
- provide estimating specialist advice during procurement phase and tender assessment.

Where the cost model exhibits aspects, which have a significant contribution to the uncertainty of the costs, the Technical Advisor must resolve the key risks and assumptions to product, cost, environment and program, to the satisfaction of the Principal and with input from the constructability consultant.

The Technical Advisor must, in a timely manner:

- provide any sketches, drawings and reports to the cost planner;
- provide earthwork volume quantities to the cost planner;
- provide technical input and advice into the "Project cost plan" through each stage of the design process; and
- be available to attend meetings and/or workshops facilitated by the cost planner in relation to quantifying project risks and developing the Project cost plan.

In collaboration with the cost planner and the Principal, the Technical Advisor must ensure as far as practicable delivery of the most cost-effective design.

3.8 BUSINESS CASE DEVELOPER

The Principal will engage a business case developer to prepare business cases for the Project. The Technical Advisor must provide necessary technical advice and support to the business case developer as required by the Principal or the business case developer.

3.9 DESIGN VERIFICATION & CERTIFICATION

The Technical Advisor must:

- provide design packages and documents that are full and complete, checked and verified prior to submission to the Principal;
- verify and certify the designs and design documents are in accordance with the functional requirements for the Project, the Principal's instructions and the Agreement including this Services Brief. Where the design and/or design documentation is not compliant, these non-compliances must be identified;
- verify the Project can be safely constructed, commissioned, operated, maintained and decommissioned;
- verify the design packages and disciplines are fully coordinated with each other, and with others' adjoining/interfacing activities and designs; and
- verify designs comply with all Statutory Requirements and all relevant standards, guidelines, codes of practice and sustainability objectives including but not limited to safety in design, construction, operation, maintenance and decommissioning

including satisfying the work health and safety duties upon designers contained in WHS Legislation.

3.10 ATTENDANCE AT MEETINGS

The Technical Advisor must attend relevant technical meetings and workshops as required by the Principal. A Project inception meeting will occur within the first week after the date of this Agreement. Thereafter weekly Project meetings will be conducted in the Sydney metropolitan area (e.g. Chatswood) with the Technical Advisor's key staff and the Principal's representatives. The Technical Advisor must attend, and must procure its staff to attend, such meetings.

The Technical Advisor must assist the Principal as required by the Principal, to prepare meeting agendas, presentation materials and meeting records in the form of minutes. The Technical Advisor must attend external agency or stakeholder meetings upon request by the Principal.

3.11 PROJECT DESIGN REPORT

For each design package, at each stage of design, the Technical Advisor must submit a "Project Design Report" and "Appendices", to demonstrate the project requirements have been incorporated into the design documents.

The design documents must reflect the stage of the design process at the time of submission.

The Project Design Report must include:

(a) scope covered by the Project design;

(b) identification of spatial requirements for the Project (or relevant part) using key dimensions on drawings;

(c) the relationship between the Project (or relevant part) and all external interfaces;

(d) design inputs including loads, load combinations, factors, safety requirements (during construction, operation and maintenance), environmental considerations and input from others;

(e) design assumptions, constraints and limitations;

(f) basis of the design and the specific design and construction methodology adopted;

(g) identification of relevant and applicable standards, codes and guidelines (including document versions) and identification of specific provisions and criteria, and classifications within such standards and codes;

(h) evidence of compliance of the design with the standards noted in (g) above;

(i) a schedule of reference information providing input into the design;

(j) a full set of drawings including as necessary site plans; general arrangements; elevations, plans and sections (indicating interrelationship between items using dimensions); drawings for all design disciplines; interface drawings and staging and sequencing drawings;

(k) certification that the design is in accordance with the fire and life safety requirements of the Building Code of Australia, the identified sustainability initiatives, the *Environmental Planning and Assessment Act 1979* (NSW), and the *Environmental Planning and Assessment Regulation 2000* (NSW);

(l) certification that the design is in accordance with requirements of the *Disability Discrimination Act 1992* (Cth) and Disability Standards for Accessible Public Transport formulated under that Act;

(m) a Project program produced in collaboration with the constructability consultant;

(n) a schedule of signatories of accepted designers, verifiers and checkers;

(o) documentation showing coordination with interfacing work packages and projects;

(p) comments register;

(q) schedule of required ASA engineering waivers, if necessary;

(r) identification of any non-standard material, product and equipment that would require type approval by ASA;

(s) key calculations;

(t) documentation of outstanding issues that may affect the design and project program; and

(u) input, advice and recommendations as relevant for the next stage of design development.

3.12 APPENDICES TO PROJECT DESIGN REPORT

The Technical Advisor must incorporate the requirements and append reports addressing the areas of expertise below, to the Project Design Report required to be prepared under section 3.10:

3.11.1 Value Engineering Report

The Technical Advisor must identify through a structured review process items that are high in cost or risk, or of significant program, construction complexity, property or environmental impact for consideration of alternative design options in addition to the options requested as part of the Program Stages. These items must be discussed and agreed with the Principal as "Optioneering & Value Management Workshop" topics prior to workshops being arranged with the relevant stakeholders. Outcomes of the workshops shall be incorporated into the design development.

The Technical Advisor must submit a proposal on the agreed items with up to three corresponding innovative design sub-options each for review prior to the workshops. The Technical Advisor must submit this proposal two weeks prior to an Optioneering & Value Management Workshop, to be confirmed with the Principal. The proposal must contain a description of the sub-options with methodology and accompanying sketches to adequately brief the workshop participants and stakeholders prior to the workshop.

The Technical Advisor must provide the Principal with proposed solutions which meet the design requirements for minimising whole of life costs (including costing for maintenance for 100 years) and maximising functionality (best value for money) in accordance with RAMS (reliability, availability, maintainability, safety) principles. The measure of RAMS principles

shall be no less than in minimum accordance with the existing systems. The Technical Advisor must liaise with the cost planner prior to the workshops to facilitate the cost planner's presentation of benchmark costing of the options at the workshops.

The Technical Advisor must also liaise with the constructability consultant to facilitate the construction sequencing presentation and risks for the options. The Technical Advisor must ensure that the constructability consultant is actively engaged in providing constructability advice and options, as well as challenging the Technical Advisor on design, methodologies, timing and constructability of the proposed options.

When providing options which will require alterations to operational rail infrastructure, the Technical Advisor must consider how the Project can be staged with minimal disruption to existing operations. Access requirements for construction plant and materials must be examined together with the effects of commissioning. Staging plans and periods when existing operations must be shut down (and the cost of staging and shut downs prepared by the cost planner) must be included in the options proposal.

The Principal or Principal's advisors may identify other items for inclusion in the Optioneering & Value Management Workshops up to five days from receipt of the proposal.

The Technical Advisor must organise and facilitate the workshops, and ensure they are attended by relevant competent persons from the Technical Advisor's design team, the Principal, stakeholders and service providers. The Principal will have the final decision in respect of options proposed.

A "Value Engineering Report" must be prepared and circulated within two weeks of each workshop for the participants' review and comments. The revised report shall be submitted formally with the draft and final Project design reports. The Technical Advisor must document the outcome of the workshops in Value Engineering Reports, which shall include:

- brief description of options presented including methodologies and drawings/sketches;
- detailed description of the preferred option, including methodology and drawings/sketches;
- costings provided by the cost planner to determine the preferred options. The costings must demonstrate whole life cycle considerations including maintenance (RAMS) principles;
- construction sequencing provided by the constructability consultant used to determine the preferred option; and
- rationale used in the decision of the preferred option.

3.11.2 Requirements Compliance Review

The Technical Advisor must demonstrate that the design meets the BRS and safety requirements derived from hazard mitigations in the Project hazard log. The Technical Advisor must provide a SRS to identify verification and validation of compliance and identification of any non-compliance against the BRS.

The Technical Advisor must nominate the acceptance criteria for each compliance demonstration. The format and process to develop the preliminary "Requirements Analysis Allocation and Traceability Matrix" (**RAATM**) must be submitted to the Principal for approval

within one month of Contract Execution. The Technical Advisor must work with the Principal to develop and update the RAATM for each Portion.

3.11.3 System Safety Engineering

The Technical Advisor must utilise a systems engineering approach for the delivery of the design. System safety engineering and assurance activities must be carried out by the Technical Advisor in accordance with ASA standard *System Safety Standard for New or Altered Assets* T MU MD 20001 ST.

The Technical Advisor must determine the human factors integration (**HFI**) activities required for the Project in accordance with T MU HF 00001 ST Human Factors Integration – General Requirements including whether a "Human Factors Integration Plan" is required for the Project (or relevant part).

3.11.4 Project Risk Register

The Technical Advisor must produce a "Project Risk Register", prepared in accordance with "Transport Enterprise Risk Management" standard TERM, to record any event that could affect the performance of any element of the Project.

Various categories of risk may be identified in the Project Risk Register. As a minimum, risks must be assessed and categorised under the following headings:

- Safety - safety risks include all risks that have the potential to result in harm to people (including passengers, employees and the general public) and/or property (addressed as part of the safety change management activities);
- Human Factors – include all risks that have the potential to change the way in which people (including passengers, employees and the general public) interact with systems (e.g. undertaking maintenance, use of new technology etc.);
- Program – Project program risks are those which adversely affect design and construction of the Project (or any part);
- Technical - technical risks are those which are likely to be encountered in achieving the technical and performance requirements of the Agreement;
- Interface - interface risks are those that are likely to be encountered as a result of interfaces between the Principal, the Technical Advisor and other parties and organisations involved in or affected by the Project;
- Constructability – the risk associated with the preferred construction methodologies with respect to cost, critical resources, program, network operations and safety;
- Customers – risks that may adversely impact the outcome delivered to customers including increased crowding, reduced levels of service, station access etc;
- Operational – operational risks are those that may adversely affect rail operations;
- Maintenance – risks that may adversely affect / change the way in which maintenance of the asset is undertaken;

- Legal – Legal risks are those that have the potential to result in legal action against the Principal;
- Environmental – environmental risks are those that have the potential to result in harm to the environment in any way; and
- Financial – financial risk relates to the potential failure to perform the Technical Advisor's activities or implement the design within the Principal's budget established for the Services and/or the Project.

Each identified risk must be assessed in terms of its likely impact in each area and recorded in the Project Risk Register. Risk assessment by the Technical Advisor must be a continuous process throughout the performance of the Services. Risk assessments must be conducted in the form of workshops attended by relevant, competent persons, qualified for the task and who have been properly briefed.

The risk management process and the classification and control of all identified risks in the Project Risk Register must be submitted to the Principal for review. The Project Risk Register must, as a minimum, contain the following information:

- details of all actual and potential risks identified, together with its source and classification;
- records of the risk ranking that has been assigned to each identified risk;
- details of the control plan(s), including the responsibility for implementing control measures, for each identified risk, consistent with the identified risk level;
- record of the current status of each control plan for each identified risk; and
- track all changes in the classification of risks over time and of the control actions taken.

The Project Risk Register must be an active Project Risk Register providing the means to identify and quantify risk situations as they emerge and to initiate corrective action immediately. The current version of the Project Risk Register must be made available continuously to the Principal.

3.11.5 Asset Maintenance Strategy

The Professional Services Provider must produce an "Asset Maintenance Strategy", which will provide a description of the maintenance of all assets corresponding to the Project, including:

- overall philosophy;
- inspection and test plan;
- access requirements for routine maintenance and replacement;
- maintenance planning and scheduling;
- any identified human factors or maintenance issues; and

- major maintenance works.

3.11.6 Asset Operations Strategy

The Technical Advisor must produce an "Asset Operations Strategy", which will provide a description of the operation of all elements corresponding to the Project's systems upgrade, in normal operating circumstances and in degraded/emergency circumstances.

This includes but is not limited to providing strategies to address the following:

- limiting track geometry including steep grades;
- interface of primary track with sidings;
- constraint due to signal spacing;
- degraded conditions with train or infrastructure failures;
- ability to restore train working to a satisfactory level, including in a confined space;
- constraints in time and distance between headways;
- ingress and egress and access to rail infrastructure by emergency maintenance vehicles;
- any human factors issues or operations issues; and
- instructions to train crew under degraded train or infrastructure conditions.

3.11.7 Noise and Vibration Assessment

The Technical Advisor must provide a preliminary assessment appended to the Project Design Report, on potential noise and vibration impacts during the operational phase of any new or modified track(s). The Technical Advisor's assessment report must identify noise and vibration sensitive receivers, exceedance of relevant noise goals/trigger levels, and possible options for mitigation that would be considered reasonable and feasible for the Project.

For any area where noise wall(s) may be considered, the Technical Advisor must identify and incorporate the noise wall(s) as appropriate in the Project Design Report.

The noise assessment shall be conducted in accordance with the *Rail Infrastructure Noise Guideline* (EPA, 2013).

3.11.8 Assessment of Sustainability Initiatives

The Technical Advisor must develop Sustainability rating strategy that identifies the relevant rating schemes (eg. ISCA, GBCA etc) and target rating including any mandatory categories that will meet TfNSW objectives, and that most closely aligns to the compulsory requirements within the Sustainable Design Guidelines.

3.11.9 Sustainability Strategy Report

The Technical Advisor must deliver a "Sustainability Strategy Report" appended to the Project Design Report to articulate sustainability aspects for the Project, including:

- setting appropriate Project sustainability targets to address material sustainability issues on the Project;
- identify a Rating strategy for implementation that identifies the relevant rating schemes that may be applicable including ISCA v2, Green Star and a pathway that identifies a pathway to maximise rating and meet Transport for NSW sustainability objectives;
- identifying how the project will meet relevant requirements under the Office of Environment and Heritage's NSW Government Resource Efficiency Policy (GREP) – (i.e. Compulsory requirements CR2, CR2A, CR8A, CR9 and CR10 of the TfNSW Sustainable Design Guidelines;
- identify design requirements or additional studies necessary to inform decision-making to address sustainability initiatives;
- identify key social sustainability risks and opportunities for the Project and implementation plans to address TfNSW requirements as a minimum;
- confirming the carbon and energy efficiency opportunities utilised on the Project (this may include exploring opportunities for offsetting operational emissions); and
- identifying key climate change risks to the Project.

The Technical Advisor must also provide recommendations to improve sustainability ratings for the Project, and implementation measures where relevant. Strategies provided by the Technical Advisor may include a Carbon Footprint Assessment using the TfNSW Carbon Estimate Reporting Tool, if relevant.

The report must demonstrate how the identified sustainability initiatives will be carried through to design, construction and operation.

The report must also demonstrate the inherent sustainability benefits associated with proceeding with the Project (e.g., reduced vehicular movements and related emissions, better air quality, reduction in greenhouse gases, etc.).

3.11.10 Climate Change Risk Assessment Report

The Technical Advisor must deliver a "Climate Change Risk Assessment" report appended to the Project Design Report in line with the TfNSW Climate Risk Assessment Guidelines (9TP-SD-081/3.0) identifying the current climate change projections for the Project study areas and examining the potential impact of these on the construction, operation and maintenance of the Project.

The Technical Advisor must also identify:

- the key climate change risks to the Project, supported by relevant published scientific studies, that could impact the performance of the infrastructure;
- proposed risk management and mitigation measures for reducing all extreme and high climate change risks identified; and
- design requirements or additional studies necessary to inform decision-making to address climate change risk and impact.

3.12 CONFIGURATION CHANGE MANAGEMENT DOCUMENTS

The Technical Advisor must submit to the Principal's Representative a System Integration Plan. The System Integration Plan must provide a high level overview of the systems and configuration states required to achieve a fully integrated system/product.

The Technical Advisor must also provide the documents required to support each submission for the staged gateways: Configuration Control Board (**CCB**) Stage Gate 1 and 2 and Transport Network Assurance Committee (**TNAC**) Gate 0 and 1.

Detail of the requirements for CCB and TNAC submissions will be made available to the Technical Advisor by request.

4 Business Case Support

4.1 FEASIBILITY REVIEW (PROGRAM INITIATION) – FUTURE MTMS STAGES

The Technical Advisor will be given a specific scope for any technical investigation, feasibility studies and optioneering. Technical investigations will likely include an identification and/or assessment of options using an agreed set of criteria. Investigations may be physical assessments based on existing assets or geographical locations. Alternatively they may be assessments of service changes, demand management or changes in technology and/or operational practices.

The Technical Advisor must allocate, or engage, suitable Subject Matter Experts to undertake transport demand forecasting, crowding analysis, service planning, customer analysis, value capture and land use analysis as needed. International benchmarking or use of experts from other countries may be necessary.

The Technical Advisor must prepare reports for each investigation with clearly summarised findings and recommendations, analysis against the relevant assessment criteria and preferred options where requested by the Principal.

The Technical Advisor must ensure that reports are written with a clear and defined outcome to support decision making.

4.2 STRATEGIC BUSINESS CASE DELIVERABLES

The Technical Advisor must conduct analyses and prepare documentation (and otherwise perform tasks) in this stage as follows:

- Technical drawings compatible with the ["TfNSW Digital Engineering (Building Information Management)"] methodology (found at https://www.transport.nsw.gov.au/digital-engineering) to a level of detail appropriate to allow costing and estimating to be accomplished for a strategic business case;
- Staging analysis and constructability assessment;
- Optioneering using prescribed option multi-criteria assessment frameworks;
- Report demonstrating initial review and compliance with the *Environmental Planning and Assessment Act 1979* (Preliminary Environmental Impact Assessment);
- Undertake hazard identification exercises and create the preliminary hazard log;
- Support the development of the "Business Requirements Specification";
- Support the development of the "Systems Concept Description (Operations and Maintenance)";
- "Asset Management Strategy";
- Feasibility design report;
- Value management;

- Land use uplift and value capture assessment;
- Whole of life costing and value for money analysis;
- Forecast transport demand and station modelling;
- Transport and rail service planning including timetable and customer analysis;
- Support the development of the "Strategic Business Case"; and
- Configuration management TNAC Gate 0.

4.3 FINAL BUSINESS CASE DELIVERABLES

The Technical Advisor must conduct analyses and prepare documentation (and otherwise perform tasks) in this stage as follows:

- Technical drawings compatible with the ["TfNSW Digital Engineering (Building Information Management)"] methodology (found at https://www.transport.nsw.gov.au/digital-engineering) to a level of detail appropriate to allow costing and estimating to be accomplished for a final business case;
- Staging analysis and constructability assessment;
- Report demonstrating initial review and compliance with the *Environmental Planning and Assessment Act 1979* (NSW) (Preliminary Environmental Impact Assessment);
- Undertake hazard identification exercises and create the preliminary hazard log;
- Support the development of the "System Requirements Specification";
- Support the development of the "Systems Concept Description (Operations and Maintenance)";
- Value management;
- Definition design report
- Land use uplift and value capture planning;
- Asset management strategy;
- Whole of life costing and value for money analysis;
- Forecast transport demand and station modelling including dynamic pedestrian modelling and reliability modelling;
- Transport and rail service planning including concept timetable and customer analysis;
- Support the technical development of the "Final Business Case"; and
- Configuration management TNAC Gate 1 deliverables.

5 GENERAL PROCESSES FOR MANAGEMENT OF SERVICES

5.1 DOCUMENT CONTROL AND ISSUES MANAGEMENT

The Technical Advisor must establish and implement a document management and control system to be used by its team and transferred to the Principal per the TSR, appended as "Appendix 4" to the Service Brief.

The Technical Advisor is responsible for:

- establishing and implementing a document register for the documents received from and sent to the Principal, other Principal's advisors, authorities and other stakeholders;
- receipt, management and distribution of documents, and the responses to these documents, including "Requests For Information" (**RFIs**); and
- establishment and maintenance of an issues and assumptions register/database for management of all key issues, including receipt, response, follow up and close out.

All documentation, reports, submissions, documents and issues & assumptions registers and the like provided by the Technical Advisor to the Principal in electronic form must be provided utilising Microsoft compatible electronic systems, as defined in TfNSW CAD Protocols (4TP-ST-084).

5.2 COLLABORATIVE AUDIT PROCESS

Without limiting the Principal's other rights under this Agreement, the Principal and the Technical Advisor will implement an audit regime which 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".

5.3 INTERFACE MANAGEMENT

The Technical Advisor must ensure appropriate resources and procedures are in place to effectively manage the interfaces during the design, including:

- arrangement of interface management meetings and recording of the meeting minutes;
- presentations, production of design reports, technical papers and drawings; and
- participation in stakeholder design reviews.

The Technical Advisor must identify all demarcations, responsibilities and interfaces with other parties, and must also incorporate a schedule of interface meetings.

The Technical Advisor is responsible for undertaking co-ordination with the Principal's internal specialists, other professional service contractors, stakeholders and other interfacing parties.

Subject to the following paragraph, the Technical Advisor must promptly provide a copy of all information requested by the Principal's internal specialists, other professional service contractors, stakeholders and other interfacing parties.

Contact with external stakeholders by the Technical Advisor shall be undertaken only following notification to (and approval from) the Principal.

6 DESIGN DOCUMENTATION SUBMISSION REQUIREMENTS

6.1 GENERAL

The Technical Advisor must submit all design documentation and other documents to the Principal for review in accordance with the requirements set out in this Services Brief. All Principal Services Contractor submissions to the Principal must be under cover of a letter stating the purpose of the submission and containing a transmittal listing all the documents and their versions contained in the submission.

The Project Design Reports and Appendices, and all drawings and sketches shall be delivered in A3 size, and in A1 or A2 for presentations if appropriate or requested by the Principal. All drawings and associated documentation, such as schematics or schedules, must be in accordance with the ASA standards.

High quality documentation is expected for all submitted documents (both draft and final). The Technical Advisor must ensure all documents submitted are thoroughly checked and proof read before submission.

The Technical Advisor must submit to the Principal one (1) original and three (3) copies of each deliverable document including reports, drawings or plans. In addition, the Technical Advisor must also submit an electronic copy of the deliverable documents on CD/DVD in PDF and native formats (such as Microsoft Word, Microsoft Excel, CAD in *.dwg or *.dgn). All reports or plans must include a title, date, author (individual and company), company contact details, comment sheets, revision number, status, page headers and footers and an executive summary.

6.2 QUALITY OF SUBMISSION

The Professional Services Provider must ensure that document sets (particularly drawings) meet the following criteria:

- Drawings must be readable when printed at A3 size. This covers adequate font size and clarity as well as an uncluttered appearance with text and dimensions not obscured by other text or line work;
- Drawings must be completed in sufficient detail that the reviewer can understand what is being represented on the drawing and how it relates to other elements of the design;
- Documents containing coloured elements must be easily readable if reproduced in black and white; and
- Multipage documents must contain page numbers.

The Principal may reject an incomplete or non-quality compliant design submission and may not proceed with the review until complete and quality compliant documentation has been resubmitted.

6.3 CRITERIA FOR DESIGN SUBMISSION

Without limiting any other provision of the Agreement, the design documentation must not exhibit any of the following features (and the Principal may refuse to accept or review such design documentation):

- design packages that do not include the minimum set of deliverable documents specified in this Services Brief;
- designs which fail to comply with ASA standards without a relevant engineering waiver schedule;
- designs which otherwise fail to comply with relevant codes and standards;
- inadequate identification of stakeholder responsibilities and demarcations;
- inadequate demonstration that interfaces have been considered in the design documentation, e.g. a lack of coordination between track alignment, track formation, signalling, overhead wiring (OHW) or drainage;
- design reports which fail to meet a reasonable standard of English expression, e.g., reports which have poor structure, poor grammar, ambiguities, contradictions, incorrect reference numbers or cross referencing, or excessive spelling mistakes;
- design packages that have not been prepared, checked and verified by persons holding appropriate competencies issued by the AEO;
- design documentation that does not demonstrate or provide evidence of internal design review, verification, validation or proof checking;
- inadequate recognition in the design documentation of construction methodology, key dimensions, sequencing and staging for the Project (or relevant part);
- inadequate demonstration of sustainability, safety and reliability when considering the construction and operation of the infrastructure being designed;
- inadequate demonstration that relevant risks identified in the project hazard log have been addressed and mitigated by the design;
- inadequate general arrangement drawings including project site location and design package location, i.e., to identify the interrelation with the site or other design packages; and
- drawings that are not in full compliance with TfNSW CAD Protocols (4TP-ST-084).

7 DIGITAL ENGINEERING

The Technical Advisor must use appropriate digital engineering methods and tools to provide an engineering accurate digital representation of the Works, containing a data rich digital engineering (**DE**) model with all associated information required to optimise the delivery, operations and maintenance of the assets.

The Technical Advisor must provide competent personnel experienced in digital engineering to certify the quality of the Project and asset information in accordance with the Principal's requirements.

7.1 INFORMATION MANAGEMENT

The Technical Advisor must provide, at minimum, the following information management outcomes (or otherwise perform the following activities):

(a) develop and use a "Project Data Schema" (**PDS**) as described in the IP Digital Engineering Standard 4TP-ST-202, which is to be used to define and structure all project information, with the PDS including the following elements (at minimum):

  (i) An "Asset Breakdown Structure";

  (ii) A "Work Breakdown Structure"; and

  (iii) A "Cost Breakdown Structure";

(b) submit or exchange all information, including all correspondence, between the Technical Advisor and the Principal's Representative, the independent certifier, the Independent Expert, the Financial Auditor, other contractors (including Construction Contractor(s)), third parties and relevant Authorities (as applicable) within the Principal's "Enterprise Content Management" (**ECM**) tool in line with the requirements of the IP Digital Engineering Standard 4TP-ST-202;

(c) provide, use, and maintain a "Common Data Environment" (**CDE**) to enable the collaborative development and review of all Technical Advisor information, including computer-aided design (CAD), 3D Modelling, GIS, documents, correspondence, etc.;

(d) develop and provide the information models representing the Works, including the "Project Information Model" (**PIM**), which is required for design and construction, and the "Asset Information Model" (**AIM**), which provides the information required for operations and maintenance. Versions of these models must be provided through formal submissions to the Principal as follows:

  (i) PIM at the completion of each major design submission milestone (such as Feasibility Design, Definition Design, Reference Design "Approved For Construction" and "As-Built"); and

  (ii) AIM at the completion of each major design submission milestone, and following commissioning and handover to support the operations and maintenance phase of the asset lifecycle; and

(e) at completion of the delivery phase, provide the Principal's Representative with an up-to-date copy of the complete PIM and AIM as defined in IP Digital Engineering Standard 4TP-ST-202.

7.2 DIGITAL ENGINEERING DELIVERABLES

The Technical Advisor must, at minimum, provide the following outcomes for, and in relation to, digital engineering in accordance with the requirements of the IP Digital Engineering Standard 4TP-ST-202:

(a) ensure "Business Requirements" and "System Requirements" are aligned with DE requirements and data structures;

(b) review and deliver existing conditions documentation, which may occur using traditional documentation or surveying techniques, or by using digital data capturing methods such as laser scanning. Where digital methods are to be used, scanning tolerances, file compatibility formats, and transfer methods shall be documented in the [DEXP] **[or in a separate Digital Survey Management Plan]** and coordinated with the Principal to ensure compatibility and re-use;

(c) generate all 2D CAD design drawings from the coordinated, federated, and clash detected BIM (3D) model, excluding diagrammatic drawings, in accordance with the relevant ASA CAD requirements;

(d) develop and deliver a single federated structured BIM (3D) model that is spatially accurate to the required engineering tolerances for each design submission;

(e) develop, implement, and maintain a model clash detection and co-ordination process to federate the BIM (3D) models and provide a "Clash Management Report" prior to each submission on the results of this process;

(f) develop, implement, and maintain a model data validation process, and provide a "Model Validation Report and Certificate" prior to each submission outlining the results from this process;

(g) deliver GIS spatial datasets and associated data in accordance with TfNSW's GIS requirements, including in alignment with the project's PDS and other DE requirements;

(h) federate for information 3D and GIS models prior to each design submission;

(i) produce the Project's schedule deliverables based on a "Work Breakdown Structure" (**WBS**) that is aligned with the Project's PDS;

(j) produce the Project's "Tender Payment Schedule" and "Cost Estimate Deliverables" based on a "Cost Breakdown Structure" (**CBS**) that is aligned with the PDS; and

(k) produce the Project's asset information deliverables aligned with the PDS to enable validation of the deliverables, and subsequent transfer to the relevant "Asset Information System(s)".

8 PRINCIPAL'S DESIGN REVIEW PROCESS

8.1 REVIEW OF DESIGN AND OTHER SUBMISSIONS

[The Technical Advisor shall submit all documents to the Principal in accordance with the program prepared in accordance with clause 18.1 of the General Conditions. Within ten (10) Business Days of receipt of a documentation package, the Principal may provide written advice on any document submitted. The Principal may:

(a) reject documents if in the opinion of the Principal's Representative, the document or any part does not comply with the requirements of the Agreement (including this Services Brief), stating the nature of the non-compliance; or

(b) notify the Technical Advisor that the Principal has no objection to the document, but provide comments on the document; or

(c) notify the Technical Advisor that the Principal has no objection to the document.

If the Principal responds to a submission with comments, the Technical Advisor must respond to the comments within five (5) Business Days or such other period as may be agreed by the Principal.

If the Technical Advisor fails to respond to the Principal's comments within this period in a manner satisfactory to the Principal, the document will be deemed to have been rejected.

If any document is rejected or deemed to be rejected, the Technical Advisor must submit an amended document within five (5) Business Days and this section will re-apply.

The Technical Advisor must establish and maintain a register of all issued documents, which must be capable of being transferred to the Principal at the end of the Services.

8.2 REVIEW FOR COMPLETENESS

The Principal may review each design submission to satisfy itself as to the adequacy of such design, including that it contains the following:

(a) a covering letter which includes the title of the project and the reference number of the design package (if appropriate). The letter must be on company letterhead and signed by the Technical Advisor;

(b) document transmittal listing all of the documents and revision status forwarded for review and their format (e.g. drawing, report, specification, etc.);

(c) CD or DVD containing all of the documents listed in the document transmittal; and

(d) design package containing:

    (i) Project Design Report;

    (ii) Project general arrangement & detailed drawings; and

    (iii) Appendices to Project Design Report.

8.3 DESIGN BRIEFING SESSIONS

Prior to any design submission for each design review stage the Technical Advisor must arrange the following briefing sessions with the Principal and or the Principal's representatives:

(a) an inception review, no later than three (3) working days after commencing the design. The inception review will also be a direction setting briefing session where the Principal or the Principal's representatives can instruct the Technical Advisor on requirements and specific issues; and

(b) a design progress review by discipline, between two (2) and three (3) weeks prior to the design being submitted. The Technical Advisor must give a brief presentation on key points of the design. The Principal may provide the Technical Advisor with comments in a comments register on the design two (2) working days following the briefing. The Technical Advisor must address and close-out these comments with responses to the comments included in the Project Design Report.

8.4 CLOSURE OF PREVIOUS COMMENTS

Comments generated by the Principal and other stakeholders from review of the design at each stage may be provided to the Technical Advisor in a comments register. The comments must be addressed by the Technical Advisor, and must be reflected in the same submission stage unless approved for carry over to the next submission stage by the Principal. The Principal is the only person that can close a comment raised during the Principal's design review.

9 TECHNICAL DISCIPLINE AREAS

9.1 DESIGN LIFE

The design life is the period within which an element must continue to meet the performance and technical requirements in accordance with this Services Brief. The defined design life period shall only require routine inspection, minor maintenance, minimal repair or remediation that can be conducted without disruption to or shutdown of the service or relevant operations. The design life shall be as specified in the relevant ASA standards.

9.2 SCOPE OF TECHNICAL DISCIPLINE AREA - GENERAL

The Technical Advisor must carry out, and, if relevant, must procure that any Subcontractors carry out, the design and documentation of the works to be carried out as part of the Project in accordance with this Agreement (including this Services Brief) and to ASA specifications, codes, standards, procedures and all Statutory Requirements, including but not limited to the technical scope of services specified in any such documents.

9.2.1 Early & Enabling Works

The Technical Advisor shall engage and work collaboratively with the constructability consultant in the identification of early and enabling works across all disciplines. Early and enabling works fast-track commencement of site specific construction works, and may include, but are not limited to:

(a) identification of all affected existing services including external service utilities and rail related services and associated infrastructure. The Technical Advisor acknowledges that affected service route(s) may include cable containment, pits, poles, under line crossings and under bores;

(b) requirements to protect or support all affected existing services remaining in-situ;

(c) requirements to divert or modify all affected existing services being diverted or relocated;

(d) requirements for retaining walls, embankments, cuttings and other ground works and associated drainage;

(e) any new station office buildings, at-grade car parks and plant, equipment and material stores;

(f) measures to mitigate impact on private properties; and

(g) any fencing and gates.

Note: Planning approval will be required from TfNSW prior to carrying out these works.

9.2.2 Temporary Works

The Technical Advisor must provide sketches, assumptions, methodology and construction staging in collaboration with the construction planning Subcontractor, unless agreed otherwise with the Principal, for temporary works that are inherent within the permanent works design. The Technical Advisor shall identify and provide a level of detail for temporary works adequate to confirm:

(a) feasibility of construction methodology;

(b) land requirements; and

(c) project cost budget, by providing relevant inputs to the cost planner.

9.3 SCOPE OF TECHNICAL DISCIPLINE AREA - TRACK

The Technical Advisor shall use maintenance alignment data provided by the Principal to identify and design the route alignment and permanent way as follows:

(a) develop, optimise and confirm the proposed final rail alignment (vertical and horizontal) mindful of construction and operational consequences;

(b) incorporate rail system spatial and other requirements, maintenance access provisions, property boundaries, and rail corridor width; and

(c) provide requirements for the track form including the subgrade capping, ballast and any reconditioning based on the available maintenance data.

9.4 SCOPE OF TECHNICAL DISCIPLINE AREA – CIVIL AND STRUCTURAL

9.4.1 Hydrology Investigations & Interpretive Reports

The Technical Advisor shall research publicly available hydrology data and studies undertaken in the project area. Where additional investigation consists of interface with Council or site investigation on Council or private property, the Technical Advisor shall seek approval from the Principal before proceeding.

The Technical Advisor must identify and develop a scope to undertake additional hydrological site investigation work as required for input into the design of the civil and structural works, for the Principal's review and acceptance.

The Technical Advisor shall produce a detailed "Hydrology & Drainage Report", in respect of which the Technical Advisor must (without limitation):

- undertake data collection and review of existing reports against the new route alignment; hydrological modelling, drainage impact assessments, flood and flood risk management studies and mitigation assessments;
- identify critical areas and possible impacts on the existing hydrological regimes, existing water courses, previously constructed drainage and external connecting drainage, particularly where these may be inadequate;
- identify upstream and downstream impacts to the existing catchments caused by the Project;
- identify critical flood areas;
- identify and confirm overland flow paths, drainage discharge points, and existing localized retention during heavy precipitation;
- develop recommendations for water treatment mitigation requirements (e.g. type, sizing and location) to meet required standards;

- collect pre-construction baseline data sufficient for the design and monitoring of the impact of the works (permanent and temporary) on the existing hydrological regimes;
- undertake a hydraulic assessment for the existing track formation drainage infrastructure;
- undertake a hydraulic assessment of existing and proposed structures;
- identify water quality treatments and the associated monitoring requirements, if any;
- develop specifications for soil and erosion control management;
- identify stakeholders and specify processes required to negotiate permission to discharge, with relevant local council(s), Sydney Catchment Authority, Office of Environment and Heritage and other relevant Authorities;
- provide advice regarding areas of specific hydrological risk, and recommendations for further investigation or mitigation measures as appropriate; and
- detail scope of further hydrological and drainage investigations in a "Hydrology & Drainage Investigations Specifications" appended to each Project Design Report (at the relevant design stage).

9.4.2 Drainage Design

At each design stage, the Hydrology & Drainage Report shall be appended to the Project Design Report, and progressively updated.

The drainage design must be developed based on the input provided by the Hydrology & Drainage Report. The Technical Advisor must demonstrate that the proposed project drainage, designed to appropriate design rainfall events, can be integrated into the existing drainage network(s) without causing flooding or overloading of the system(s).

Stormwater from the general rail corridor area, platforms, buildings, carparks or access roads must be discharged to the local council drainage system. Stormwater from these areas (and all other areas external to the track) must not be allowed to enter the track drainage system.

9.4.3 Condition Assessment

The Technical Advisor shall identify and carry out desktop studies of existing structures (for example, bridge piers, abutments, tunnels and retaining walls) likely to be impacted by the Project, inclusive of but not limited to:

- structural capacity/design life assessments;
- existing track moving parts adequacy (if proposed to be retained as part of the concept design); and
- condition of existing cable routes and identification of spare capacity (if proposed to be retained or used as part of the concept design).

The Technical Advisor must document all findings above and also identify requirements for repair, remediation and strengthening of existing structures likely to be impacted by the Project, and of recommended additional investigations in condition assessment reports appended to each Project Design Report.

9.4.4 Stage 1 Contamination Assessment

The Technical Advisor shall carry out a Stage 1 Preliminary Site Investigation (PSI) of the proposed alignment to provide historical and background information regarding potentially contaminating activities within the rail corridor and surrounding areas.

The Stage 1 PSI must be prepared/carried out in accordance with the Guidelines for Consultants Reporting on Contaminated Sites (NSW OEH/EPA, 2011) and include the following methodology:

- a desktop review of all available historical and background information including land titles records search, Section 149 certificates, Work Cover NSW Dangerous Goods search, council records and a NSW EP contaminated lands register search;
- a review of past and current on-site activities;
- a review of past and current activities on neighbouring properties and identify any potential on-site/off-site sources of contamination;
- a review of past and current aerial photographs of the sites and their surrounds to identify previous buildings and/or infrastructure associated with potential on-site/off-site sources of contamination;
- a review of local geology and hydrogeology (including a groundwater bore search); and
- undertake a site inspection of the alignment.

The Stage 1 PSI will provide information regarding potential historical contaminating activities and sources, contaminants of concern and areas of concern, and will supplement the methodology and develop a scope for the subsequent Detailed Site Investigation (DSI). The Technical Advisor shall append and submit the Stage 1 PSI to each Project Design Report (at the relevant design stage).

9.4.5 Existing Utilities

The Technical Advisor must undertake a preliminary assessment of the likely impacts of the Project on existing external service utilities, Sydney Trains' service utilities and associated infrastructure. The Technical Advisor shall do so by carrying out activities including but not limited to the following:

(a) identify existing utilities within the vicinity of the rail corridor by:

  (i) compiling all relevant ASA DSS / ISS, Dial Before You Dig, and external parties services search information related to the Works;

  (ii) converting all services search information into CAD format and collate into GIS database model for overlay and design of the Project; and

  (iii) creating a set of existing utilities plans with design overlay for inclusion into the Project design drawings;

(b) provide a preliminary assessment of the impacts from the project by providing the likely extent of temporary, enabling and permanent designs to relocate, protect, support, modify and/or divert existing utilities that interface with the Project construction and/or future operation of the Project (or network following the completion of the Project); and

(c) identification, design and documentation of the existing utilities and associated infrastructure, including but not limited to the following items:

(i) railway lines;

(ii) signalling ducting / cabling, pits, ULX, installations and footings;

(iii) both aerial and underground HV and LV electrical poles, pits, ducting, cabling, installations and earth grids;

(iv) electrical services and associated rail infrastructure;

(v) communication and control systems, services, ducting/cabling, pits and ancillary infrastructure;

(vi) hydraulic pipelines and water tunnels;

(vii) stormwater pipelines / culverts and headwall structures;

(viii) sewers;

(ix) gas pipelines;

(x) services route(s) including cable containment, pits, poles, under line crossings and under bores;

(xi) footings, supports and fixings for signage; and

(xii) fencing and gates including footings.

9.4.6 Earthworks & Drainage

The Technical Advisor shall provide civil design for new Project earthworks and drainage elements. Identification, design and documentation of these works by the Technical Advisor includes the following scope:

- embankments, cuttings, ground improvements, other ground works and associated drainage;
- demonstration that the proposed Project drainage can be integrated into the existing drainage network/s without causing flooding / overloading of the systems;
- cut/fill earthworks surplus and spoil reuse/management including permanent stockpiles, noise mounds, visual screening earthworks design with provision for drainage, scour/erosion protection, structural stability and landscaping considerations;
- Combined Services Route (CSR) including cable containment, trenching, galvanised steel troughing, junction/pulling/inspection/access pits, poles, under line crossings and under bores;
- incorporate rail systems spatial and other requirements, maintenance access provisions, property boundaries, rail corridor width etc.;
- accommodate future land use and where relevant incorporate provisions in the infrastructure design;

- design of new stormwater drainage for tracks, stations, other buildings, structures, roadworks, pavements etc. and any necessary attenuation system(s);
- provide design to stabilise existing and new cutting / embankment batters;
- temporary construction and permanent drainage design including provision for sediment, scour, water treatment and erosion control measures; and
- provision of earthwork cut and fill volumes to the cost planner for cost estimating.

9.4.7 Civil and Structural

Identification and design of the civil and structures for the Works, including but not limited to:

- incorporate rail systems spatial and other requirements, maintenance access provisions, property boundaries, rail corridor width etc.;
- demolition and reconstruction, strengthening, impact protection or extension to existing station concourses, platforms and other buildings;
- new station concourses, platforms and other buildings;
- condition assessment, repair/remediation, coating, demolition and reconstruction, strengthening, impact protection or extension to existing under/overbridges and pedestrian bridges including footings and foundations;
- condition assessment, repair/remediation, coating, demolition and reconstruction, strengthening, impact protection, extension or widening of existing tunnels;
- new viaducts, under/overbridges and pedestrian bridges;
- access structures including lifts and staircases;
- deflection/collision protection structures;
- retaining walls, noise abatement walls or measures, embankments, cuttings and other ground works, structural treatments and associated drainage;
- new rock anchors and soil nails;
- land-decontamination, encasement or other treatments;
- pedestrian and services bridges, culverts and headwalls, and associated structures;
- stormwater drainage structures for tracks, stations, other buildings, structures, roadwork's, pavements etc. and any necessary attenuation system;
- services route(s) including cable containment, pits, poles, under line crossings and under bores;
- fencing and gates;
- determine and identify worksite locations;
- determine and identify both temporary and permanent property acquisition requirements; and

- determine and identify both temporary and permanent rail corridor access points and maintenance routes.

9.4.8 Roads

Identify the required changes to local council and or Roads and Maritime Services roads, including but not limited to:

- roads, car parks, kiss and ride, pavements and cycle facilities (shared path and parking /storage) as defined by the station precincts;
- traffic signals and other traffic management systems;
- road signage;
- road lighting; and
- transport interchanges and associated facilities.

9.4 SCOPE OF TECHNICAL DISCIPLINE AREA – HV & LV ELECTRICAL AND OHW

9.5.1 HV & LV Electrical Services

The Technical Advisor shall carry out the design of and document the Works to comply with applicable codes, specifications, standards, procedures and Statutory Requirements based on the scope of services described below:

- incorporate rail systems' spatial and other requirements, maintenance access provisions, rail corridor width and property acquisition boundaries;
- identify potential point(s) of supply for signalling power supply, lighting, and coordinate with the power supply provider, including completion and submission of applications;
- identify HV and LV distribution, reticulation and new or additional load demand requirements, including upgrade of pad-mounted transformers, isolation transformers, distribution boards, cabling etc.;
- SCADA/remote control;
- HV/LV protection, required only if change to feeder route(s);
- provide spatial design to accommodate pole and overhead transmission line cable routes;
- provide scope of the electrical HV/LV power to installations such as building, bridges, viaduct and signalling including cabling, lighting, CCTV system, mechanical services systems and plant;
- production of 1500v sectioning diagram; and
- identify any traction power supply requirements for the OHW system including connection point in the local traction substations or section hut.

9.5.2 Overhead Wiring (OHW)

The Technical Advisor shall carry out the design of and document the Works to comply with applicable codes, specifications, standards, procedures and Statutory Requirements based on the scope of services described below:

- incorporate rail systems' spatial and other requirements, maintenance access provisions, rail corridor width and property acquisition boundaries;
- determine OHW system type - the overhead wiring system must be suitable for the DC traction power and must be compatible with the existing overhead wiring system;
- production of OHW & OHW structures (**OHWS**) general arrangement plan;
- production, submission and approval of Proposed Operating Diagrams;
- identify new, and existing OHWS to be modified or augmented;
- determine provision of sectioning to suit maintenance requirements;
- identify any track side isolators or other trackside equipment requirements; and
- OHW tension length diagram to accommodate staging.

9.5 SCOPE OF TECHNICAL DISCIPLINE – SIGNALLING

The Technical Advisor shall carry out the Project design and document the Works to comply with applicable codes, specifications, standards, procedures and Statutory Requirements based on the scope of services described below:

- assessment of the proposed new track layout (horizontal and vertical alignment) and propose a signalling layout to accommodate the new track arrangements, including any requirements for catchpoints;
- identify any signalling equipment that would require relocation as part of the proposed construction works (including cabling and signalling locations);
- identify any cabling requirements to install the new signalling infrastructure;
- identify any new signalling location/bungalows required for the new signalling arrangements;
- consider signalling equipment positions such as signal positions with respect to signal sighting, bungalow positions with respect to civil and maintenance access constraints and warning light/emergency operating levers with respect to maintenance staff requirements;
- production of draft signalling plans; and
- production of signalling functional specifications.

9.6 SCOPE OF TECHNICAL DISCIPLINE AREA – COMMUNICATIONS & CONTROL SYSTEMS

The Technical Advisor shall carry out the Project design and document the Works to comply with applicable codes, specifications, standards, procedures and Statutory Requirements based on the scope of services described below:

- incorporate rail systems' spatial and other requirements, maintenance access provisions, rail corridor width and property acquisition boundaries;
- identify and design requirements of the communications and control systems for the Works, including but not limited to:
  - train radio;
  - EWIS;
  - SCADA;
  - security monitoring and control systems; fire detection and alarm systems;
  - lift emergency phones;
  - help points;
  - SPI and VMS systems;
  - PA and LLPA systems;
  - station management systems;
  - staff amenities security panel;
  - EACS for site entry;
  - precise clock;
  - local control and operating systems including HMIs and workstations to interface with BMS;
  - local data LANs;
  - communications backbone (voice, daTA, video);
  - telecommunications network: (cables, P&P, ULX);
  - CCTV at stations and staff and commuter car parking facilities; and
  - signalling-related telecommunications including Loc-to-Loc communication cabling, signal post telephones (SPT), yard phones, emergency switch machine lock / emergency operator lock (ESML/EOL) phones.

9.7 SCOPE OF TECHNICAL DISCIPLINE AREA – EARTHING, BONDING AND ELECTROLYSIS

The Technical Advisor shall carry out the Project design and document the Works to comply with applicable codes, specifications, standards, procedures and Statutory Requirements based on the scope of services described below:

- prepare site assessment report entitled "Earthing and Bonding Hazard Identifications and Safety Risk Assessment Report";
- determine fault levels, relevant network impacts and upgrades required; and
- identify design requirements of the earthing, bonding, electrolysis, lightning and fault protection systems for the Works.

9.8 SCOPE OF TECHNICAL DISCIPLINE AREA – ARCHITECTURE AND URBAN DESIGN

The Technical Advisor shall carry out the design and document the Works to comply with applicable codes, specifications, standards, procedures, Statutory Requirements and best practice based on the scope of services described below. The Technical Advisor shall identify the architecture and urban design requirements and provide design for the entire project areas, including but not limited to:

9.8.1 Urban Design

- transport interchange precincts;
- urban design of each station precinct, including transport interchange facilities; and
- urban design of railway corridor elements including railway cutting finishes, bridges, noise walls, fences and retaining walls.

9.8.2 Architecture

- Stations;
- Pedestrian access and crossings;
- Paving extents;
- Seating locations;
- Traffic movement;
- Bus shelters/canopies locations;
- Street lighting locations;
- Staff amenities;
- Archive and general storage;
- Solar power/photovoltaics;
- Constructability including suitability of materials (corrosion, maintenance etc.);

- Cleanability and maintenance access (maintenance walkways and the like);
- Future expansion;
- Associated car parking;
- Ancillary service buildings at stations and elsewhere as required by the Principal;
- Local Council constraints;
- Passenger ingress, egress and ticketing, including pedestrian access and crossing;
- Public art or interpretation incorporated into architecture and or structure (discuss and document only);
- Mechanical services;
- Hydraulic and fire services;
- Electrical services;
- Water and sewer services;
- Assess conflict with existing infrastructure and adjacent buildings and impact to local traffic, and provide design;
- Provide preliminary building code of Australia (BCA) and Disability Discrimination Act (DDA) report highlighting requirements and areas of concern at the station precincts; and
- Provide preliminary high-level fire engineering assessment highlighting areas of concern at the station precincts.

9.8.3 Landscape Architecture

Identify the landscape architecture requirements, including but not limited to:

- landscape design plans (hard & soft landscaping) for the station precincts, ancillary buildings, transport interchange facilities and rail corridor;
- landscaping to all disturbed areas;
- protection of existing landscape and fauna & flora habitat areas; and
- retaining walls and urban design treatment to retaining walls.

9.8.4 Vertical Transportation

Identify the vertical transportation requirements for the stations (as necessary or required by the Principal), including but not limited to lifts - based on the use of Sydney Trains standardised equipment, including determining the number, size, location and specification requirements.

The TfNSW lift specification (SP001) will apply to the procurement of new lifts.

9.8.5 Mechanical Services Systems

Identify the mechanical services systems requirements for any buildings and stations (as necessary), including but not limited to:

- environmental control systems; and
- motor control centres, local control systems and final sub-circuits to serve the mechanical plant and equipment.

9.8.6 Electrical LV Power and Installations

Identify the electrical LV power and installation requirements for any buildings and stations (as necessary or required by the Principal), including but not limited to:

- Distribution Supply Main Switch Board and Installation Supply MainSwitch Boards, based on maximum demand assessment of existing and new demands;
- lighting and emergency lighting;
- vertical transportation;
- CCTV system;
- mechanical services systems; and
- pit and duct cable routes, cable reticulation, cable containment, including spatial provision and support systems for local and system wide cabling.

9.8.7 Hydraulic and Fire

- fire detection;
- fire protection systems including wet and gaseous suppression systems;
- fire hydrant and hose reel systems;
- rainwater and groundwater systems including pumping and treatment systems; and
- cabling.

9.9 SCOPE OF TECHNICAL DISCIPLINE AREA – RAIL SERVICE PLANNING

9.9.1 Rail Service Planner

The Technical Advisor must fulfil the role of a Rail Service Planner. The primary purpose of the Rail Service Planner is to develop future rail service plans, operating strategies and specifications to meet future passenger and freight demand while improving the customer experience. This includes undertaking research, analysis and providing advice on passenger demand, customer requirements, customer outcomes, solutions for removing constraints and integrating with other modes of transport.

The Technical Advisor will be responsible for the following:

- design integrated network plans to best match demand (passenger and freight) with capacity and optimise the use of existing and new infrastructure and develop proposals to remove any constraints to services, including the use of digital systems, and new technologies;
- development and analysis of demand-related issues and provide advice on addressing capacity and operational constraints;
- ensuring proposed strategies to improve customer experience are integrated with other transport modes;
- undertaking of comprehensive studies of observed and forecast demand to identify trends and capacity related issues to provide the basis for establishing and monitoring minimum service requirements across the network;
- use all available data to analyse existing network performance and customer experience and develop innovative solutions for future network plans and timetables to deliver tangible improvements;
- critical analysis of network plans and draft timetables and provide advice on changes recommended, including the impact of these changes on customers;
- evaluation of customer requirements, stakeholder requirements, and business requirements to ensure that feedback is incorporated into future rail service plans and timetables;
- development and coordination of project plans for major and key deliverables;
- design of cost effective routes and/or networks that promote increased public transport usage;
- collaborating with other teams, divisions and areas within the NSW Transport Cluster (i.e. Sydney Trains and NSW Trains) to gather requirements and refine the development of the service plan;
- work closely with the "Customer Analysis: team to document the impact of these changes on customers and whether the changes have been made in accordance with agreed requirements;
- work closely with the "Simulation and Evaluation" team to ensure that proposed service plans and timetables are operational and deliverable; and
- lead and participate in the evaluation of service plan and timetable options to be put forward for final consideration.

9.9.2 RailSys Analyst

The Technical Advisor must fulfil the role of a RailSys Analyst. The primary purpose of the RailSys Analyst role is to undertake evaluation and analysis of the technical integrity and performance characteristics of existing, proposed and future timetables. The RailSys Analyst shall undertake statistical analysis work and deliver the technical integrity and performance evaluation of network plans and concept timetables. The role utilises the RailSys analytical tool for the simulation of rail operations, and provide advice on timetable, infrastructure and rolling stock improvements necessary to achieve performance criteria.

The Technical Advisor will be responsible for (but not limited to) the following:

- performing rail timetable, infrastructure and rolling stock analysis, including the use of digital systems (European Train Control System (ETCS) Level 2);
- undertaking forensic analysis of existing timetables focused on examining and understanding the evidence, and recreating and analysing events that have occurred, to assess a range of timetable structural improvements, to enhance the quality of rail services to customers and operators;
- preparing and developing full day concept timetables that allow a number of key metrics to be extracted including service kilometres and fleet requirements;
- undertaking detailed operational modelling of proposed timetables to test the structure of timetables, and to confirm that timetables are sound and robust, to ensure that the timetable minimises delays and has sufficient capacity to recover from minor to moderate disruption;
- undertaking infrastructure modelling to confirm that the functional objectives of new rail infrastructure can be achieved and that proposed capital projects meet operating objectives;
- preparing reports and presentations on the outcomes of modelling and analysis for communication to management and key stakeholders, and reduce complex information to clearly presented and supported conclusions and recommendations, to support decision making;
- working collaboratively as part of a team to deliver results, write reports and share understandings with other team members; and
- Contributing world's best practice outcomes delivering evidence based results.

The Technical advisor will be required to provide their own RailSys operating license. Software and Hardware will be provided by the Principal.

For RailSys the version required is 10.3.18. The Principal will look to upgrade RailSys when updated versions are available, and it is expected the TA Partner will maintain up to date licenses in alignment with TfNSW resources.

9.9.3 Customer Analyst

The Technical Advisor must fulfil the role of a Customer Analyst. The primary purpose of the Customer Analyst role is to provide and present analysis of current and future customer demand to inform the design of rail timetable design specification and rail service planning and its communication. This includes the comparison of service plan and timetable statistics as well as the ability to communicate detailed statistic and data across varying mediums to varying levels of management. The Customer Analyst will be customer centric and develop customer requirements for rail timetable change based on clear evidence and insights.

The Technical Advisor will be responsible for (but not limited to) the following:

- comprehensive analysis of current and future demand to identify trends and capacity issues;
- processing and analysing large data sets to draw out customer insights from current and future data sources;
- reviewing concept rail timetables with a customer lens, looking for potential customer related issues, interchange, hotspots, concerns and provide evidence if modifications are required;
- quantifying and qualifying impacts using new data sources and building appropriate tools, spreadsheets or models to analyse the data;
- building innovative tools through the use of programming (e.g. SQL, Python, R) to report network wide impacts to sell the timetable product changes and inform stakeholders;
- developing criteria to analyse different service plan options during a timetable concept process;
- developing an evaluation framework from a customer outcome perspective;
- being responsive to new ad hoc requests for information where tools have not yet been built to answer;
- thinking outside the box and considering how the analysis will be conducted and presented;
- surveying and researching design to gather intelligence on customer requirements;
- preparing station impact documents for varying stakeholders;
- analysing ad hoc customer impacts where stops are removed/added for rail services and to determine the overall impact of the change - from an individual and also a network wide perspective;
- being innovative and challenging the norm;
- collaborating with other teams, divisions and areas within Transport for NSW (i.e. Customer, Technology and Services) to gather and interpret data; and
- preparing easily understood briefing material, papers and presentations to effectively communicate technical data and timetable changes.

9.9.4 Visualisation, Documentation and Editing

The Technical Advisor must fulfil the role of a Visualisation, Documentation and Editing Specialist. The primary purpose of the Visualisation, Documentation and Editing Specialists is to lead the production of detailed presentations and documents to clearly articulate complex rail service planning and operational information to allow informed decision making and communication to stakeholders. This also includes documentation and editing of operational and concept timetable specifications that provide the technical analysis and specificity of the planned rail service changes and the resulting impact on customers and operations.

The Technical Advisor will be responsible for (but not limited to) the following:

- leading the design, development and implementation of information presentation and documentation techniques, incorporating modern information visualisation techniques to support service planning decision making;
- leading the translation of complex concepts into professional presentations, documents and executive style reports to engage diverse audiences and stakeholders possessing varying levels of technical understanding;
- leading the collaboration between stakeholders to design and present complex concepts and summarise vast sets of data, utilising appropriate presentation, document and knowledge transfer techniques that are easy to understand and communicate;
- developing, producing and editing a detailed specification documentation based on the service plans, demand analysis and concept timetables through collaboration with the Rail Service Planning team; and
- detailed graphical representations of the timetable and services.

9.10 Scope of Technical Discipline Area – Transport Demand Modelling

9.10.1 General Obligations

The Technical Advisor must fulfil the role of Transport Demand Modelling Manager as part of an integrated program team to identify requirements and support the development of options for delivery of the Project. For this purpose, the Technical Advisor must allocate a resource who will be responsible for managing and tracking through a schedule, the successful delivery of all modelling responsibilities highlighted in this section.

The key accountabilities will include:

- set up of the appropriate modelling tools and execution of modelling;
- assistance with the development of demographic and network inputs into the transport modelling, including preparation of itineraries, land use input, station locations and transport feeder services for each option;
- assessment and interpretation of modelling outputs;

- provision of the modelling outputs for economic appraisal of options, as requested by economic planners; and
- preparation of several technical reports that summarise the transport planning, transport modelling and pedestrian modelling assessment process and outcomes.

9.10.2 Transport Demand Modelling

The Technical Advisor will be responsible for the operation of strategic and detailed transport demand models including:

- Strategic Travel model (STM) or equivalent;
- Public Transport Project Model (PTPM) or equivalent;
- Enhanced Train Crowding Model (ETCM) or equivalent;
- Reliability Modelling (e.g. Line Capacity Model or equivalent);
- Static station crowding assessments; and
- Dynamic Pedestrian (e.g. Legion or equivalent).

The Technical Advisor must also support the informed decision-making process through the provision of outputs to inform rail service planning and economic outputs and indicators from the modelling to inform business case and economic decisions.

The Principal has identified the opportunity for innovation in demand modelling services and will consider demand models that are able to demonstrate the equivalent or greater functionality of the aforementioned demand models. The Principal will be pushing the development of additional modelling functionality in collaboration with the Technical Advisor and other stakeholders.

The Technical Advisor must provide demand modelling services to forecast public transport demand and in particular rail demand for (but not limited to):

- the AM peak, PM peak, off-peak and all-day service periods;
- annual forecast horizon years (2021, 2022, 2023 etc.) until at least 2036;
- changes and improvements in transport and rail services and infrastructure;
- changes in land use inputs in a dynamic manner throughout the modelling process; and
- changes in the assumptions of public transport usage.

The Technical Advisor must provide reliable transport forecasts through a calibrated model(s) to inform the development of future service improvements, infrastructure investments and economic and financial appraisal in alignment with NSW Treasury guidelines

STM, PTPM and ETCM are reliable to model only the AM peak period per 5 year intervals and as such, the Technical Advisor must provide the modelling methodology that will be implemented to achieve a yearly forecast for the above service periods as well as how land use input changes will be accounted for. This methodology must take into account infrastructure, service and land use changes in interim years.

The Technical Advisor must produce updated demand matrices to be used as the basis for forecast demand, leveraging the availability of OPAL data. This must be developed in collaboration with Transport Performance and Analytics (TPA).

The Technical Advisor must develop a demand modelling report that contains (at minimum) the methodology, modelling assumptions as well as detailing the scenarios modelled and the findings. It must also include the documentation on adjustments that are undertaken within the model or out of model to refine the outputs.
The Technical Advisor will be responsible for the following:

- model calibration to reflect the base case network;
- model development and operation for multiple time periods (AM peak, PM peak, off-peak and all-day periods) and annual forecasts;
- provide reliable forecasts of transport demand for analysis and to inform the development of future service and infrastructure investments;
- provide reliable forecasts of transport demand for inputs into economic and financial models that are in alignment with NSW Treasury guidelines;
- reviewing and agreeing modelling scenarios, and maintaining and keeping record of an up-to-date modelling schedule and assumption book;
- analysis and documentation of modelling methodology and changes in the key inputs and modelling scripts;
- deliver a demand modelling report detailing modelling scenario, assumptions, findings and deficiencies;
- providing sufficient information to allow an assessment of the uncertainties associated with its forecasts;
- client and other service providers liaison – respond to the needs of the Project team and co-operate with other service providers;
- the management of the demand modelling schedule and run list.

The Principal requires the Technical Advisor to obtain CUBE licenses for the operation of ETCM. No licenses are required for EMME for the operation of STM and PTPM.
Licenses and software should be provided by the Technical Advisor for any other models.

For CUBE the software version required to run ETCM is Cube v6.4.2.

9.11 SCOPE OF TECHNICAL DISCIPLINE AREA – LAND USE PLANNING AND ANALYSIS

The Technical Advisor must provide land use planning and analysis services to investigate and develop land use strategies. These strategies will provide inputs to transport demand modelling undertaken for the Project, the investigation of the economic benefits of rail service and infrastructure improvements and the identification of opportunities for value capture and developer contributions.

The Technical Advisor will be responsible for (but not limited to) the following:

- review relevant strategy documents that apply to the corridors including, but not limited to, those produced by the Greater Sydney Commission, the Department of Planning and Environment, local government(s), other relevant NSW and/or Commonwealth bodies and reports previously completed by Transport for NSW andengage with these same entities;
- undertake opportunities and constraints mapping. It may also include the identification and assessment of opportunities for additional land use change in the broader area. This will be critical in the context of significant changes to planning surrounding the project corridors;
- analyse the potential impacts of the Project in terms of social equity, transport advantage and disadvantage and opportunities for renewing social housing;
- identify key land use attractors;
- identify land ownership at a sub-regional level including any broad limitations placed by native title, Commonwealth and State Government-owned land, major private landholdings (>0.5ha) or land fragmentation;
- develop base case and growth scenarios including the development of urban renewal scenarios for stations and key centres covering the 400m and 800m catchment as well as the broader precinct;
- develop population and employment forecasts for base case and urban renewal scenarios for inputs into transport demand modelling, including the assumptions and methodology underpinning change and any population redistribution;
- provide land use inputs to support economic and financial analysis;
- based on the urban renewal scenarios revisit the planning framework for strategic locations in the corridors to identify optimum density and outcomes;
- provide advice and assess the potential for the Project to support a range of new employment and job types in and out of the corridors, including high value jobs (including knowledge, health and education);
- identify potential uplift opportunities for land use change to support special uses, industry clusters, diverse housing and jobs; while optimising opportunities including land use and productivity, while ensuring liveability and amenity;

- investigate the potential for value capture as a result of growth and identify suitable value capture mechanisms, including identifying a framework for securing funding from the private development sector through existing methods e.g. Voluntary Planning Agreements. This must include the potential for over-station and over-corridor development and the sale of government land; and
- assess the potential for the Project to support housing affordability within the corridors. This must include a quantification of the potential and a discussion around a methodology to achieve housing affordability outcomes. This could be a framework or set of principles.

9.12 SCOPE OF TECHNICAL DISCIPLINE AREA – PEDESTRIAN MODELLING

The Technical Advisor must undertake dynamic pedestrian modelling analysis with an appropriate microsimulation tool (e.g. Legion Modelling) to understand the implications of anticipated future passenger demand at the station and precinct level. The outcome must recommend and define station infrastructure changes and upgrades, to best serve station users at selected stations that minimises the amount of congestion and delays.

The Technical Advisor will be responsible for (but not limited to) analysing the following:

- platform crowding;
- vertical transportation delays between platforms and concourse(s);
- concourse(s) crowding;
- ticket gate queuing and crowding;
- station entry/exit crowding; and
- pedestrian movements and crowding through the station and surrounding precinct.

The Technical Advisor must undertake pedestrian modelling analysis with due consideration to the interface between the platform and train to provide supporting information and data into the development of reliable and sustainable operating solutions. The Professional Services Contract must provide innovation in the measurement and modelling of on train crowding and the implications on service reliability.

The Technical Advisor must develop a pedestrian modelling report that contains at minimum the methodology, modelling assumptions and databook as well as detailing the scenarios modelled and the findings. It must also include the documentation on adjustments that are undertaken within the model or out of model to refine the outputs.

9.13 SCOPE OF TECHNICAL DISCIPLINE AREA – SURVEY

9.13.1 General

The Technical Advisor shall undertake detailed 3D laser scan by qualified specialist using one or a combination of the following laser scanning techniques:

- Terrestrial Laser Scan (TLS);
- Mobile Laser Scan (MLS);
- Aerial Drone Laser Scan; and
- Aerial High Definitions LIDAR survey.

The Technical Advisor shall undertake traditional survey to validate 3D laser scan data.

The Technical Advisor must undertake all survey work in accordance with the *Surveying and Spatial Information Act 2002* (NSW), the *Surveying and Spatial Information Regulation 2017* (NSW), all ASA and ISO standards which include, but may not be limited to;

(a) T HR TR 13000 ST 'Railway Surveying';

(b) T MU MD 00006 F1 'Metadata Spreadsheet for Engineering Drawings';

(c) T MU MD 00006 ST 'Engineering Drawings and CAD Requirements';

(d) T MU MD 00006 TI 'Technical Information for CAD and Engineering Drawings';

(e) ISO 17123-2 Optics and optical instruments – Field procedures for testing geodetic and surveying instruments – Part 2: Levels;

(f) ISO 17123-3 Optics and optical instruments – Field procedures for testing geodetic and surveying instruments – Part 3: Theodolites;

(g) ISO 17123-4 Optics and optical instruments – Field procedures for testing geodetic and surveying instruments – Part 4: Electro-optical distance meters (EDM measurements to reflectors);

(h) ISO 17123-5 Optics and optical instruments – Field procedures for testing geodetic and surveying instruments – Part 5: Total Stations;

(i) ISO 17123-6 Optics and optical instruments – Field procedures for testing geodetic and surveying instruments – Part 6: Rotating Lasers;

(j) ISO 17123-7 Optics and optical instruments – Field procedures for testing geodetic and surveying instruments – Part 7: Optical Plumbing Instruments;

(k) ISO 17123-8 Optics and optical instruments – Field procedures for testing geodetic and surveying instruments – Part 8: GNSS Field Measurement Systems in Real Time Kinematic (RKT); and

(l) ISO 17123-9 Optics and optical instruments – Field procedures for testing geodetic and surveying instruments – Part 9: Terrestrial Laser Scanners.

All survey observations and deliverables shall be recorded and delivered in Integrated Survey Grid (ISG), which is the current coordinate system utilised by the Major Control Rail Survey Control Marks (Rail SCMs) used in that section of the rail corridor.

9.13.2 Accuracy and Specifications

Depending on the survey capture methodology, the Technical Advisor must achieve the following accuracies for all survey deliverables:

Laser Scan Capture Type	Survey Plane	Absolute Accuracies	Relative Accuracies
Terrestrial Laser Scan (TLS)	Horizontal	+/- 20mm	+/- 10mm
	Vertical	+/- 20mm	+/- 10mm
Mobile Laser Scan (MLS)	Horizontal	+/- 50mm	+/- 10mm
	Vertical	+/- 50mm	+/- 10mm
Drone Scan	Horizontal	+/- 50mm	+/- 50mm
	Vertical	+/- 50mm	+/- 50mm
Aerial High Definition LIDAR	Horizontal	+/- 150mm	+/- 50mm
	Vertical	+/- 300mm	+/- 50mm

9.13.3 Point Cloud

From the 3D laser scan, the Technical Advisor shall provide the following:

(a) A continuous, clean (error free) Point Cloud (PC). The point cloud must be derived from a 3D laser scan for the full width of the rail corridor. Where a limiting factor such as a cutting, embankment or dense vegetation etc., restricts the ability of a TLS or MLS from being able to define the top of embankments, base of cuttings or areas behind dense vegetation etc., other scanning techniques must be employed to define these areas.

(b) The point cloud must be suitable for future feature extraction of 3D solids and lines. As per section 9.13.4 and in the future by others.

(c) The ground surface of the point cloud must be classified to distinguish between the ballast profile and the natural surface.

(d) The PC must be suitable for conversion to the Map Grid of Australia (MGA) coordinate system, should MGA survey control become available at some time in the future.

9.13.4 Topographic Survey Elements Extracted from the Point Cloud

The Technical Advisor must ensure that the following topographic elements are extracted from the PC.

- 3D strings and points in *.dwg, *.dxf and *.12da format including:
  - track alignment and track center line string;
  - turnouts and crossovers;
- major topographic features such as top and toe of ballast and formation, transverse waterway gullies, embankments, cutting and retaining walls, pathways, roads, bridges, fences, signage etc,;

- the outline OHWS footings;
- the outline of signals and other lineside infrastructure footings;
- the outline of platform including coping strings, coping width, face of platform below coping and any infrastructure affixed to the platform;
- the outline of buildings and any features pertinent to the design (for example gutter and down pipe);
- the outline of drainage, CSR pits and location GST, GLT and lighting/ power poles; and
- the outline or position of any other feature critical for the design (for example existing wash basin to be retained).

The extracted 3D strings and points must be used to create a typical rail 3D detailed survey for use in the development of the concept design.

9.13.5 Topographic Survey Validation

The topographic survey elements extracted from the PC must be validated through the capture of cross-sections at:

- 500m intervals along length of new route alignments; and
- feature points along the corridor.

9.13.6 Survey Report

A survey report must be provided by the Technical Advisor following the submission of the PC. The survey report as a minimum must contain the following information:

- a description of the scope of work covered;
- laser scan capture methodologies adopted;
- a schedule of reference information and inputs into the laser scans and PC (e.g. Rail SCMs, targets, etc.);
- any design assumptions, dependencies and constraints;
- the identification of relevant and applicable codes and standards (including document versions) and the identification of specific provisions, criteria and classifications within such codes and standards;
- description of accuracies achieved (relative and absolute); and
- quality assurance and topographic validation of the laser scanning techniques utilised.

9.13.7 Point Cloud and Survey Deliverables

The Technical Advisor must ensure that the following point cloud and survey deliverables are completed:

- single combined point cloud in *.LAS format and another format suitable for importation into NavisWorks;

- 1km Tiles – The point cloud must be blocked into individual one kilometre tiles based on the ISG coordinate system, including a layout file consisting of a one kilometre grid covering the area of interest in a suitable format such as a 12D Model *.12da file. It must consist of the boundary of interest for the project superimposed on the grid with closed polygons of each grid block;
- Digital Terrain Model (DTM) in ASCii XYZ format and 3D triangulation of the DTM in *.dwg and *.12da format;
- 3D detailed survey model in *.dwg and *.12da format and 2D detailed survey drawings in *.dwg and *.pdf format;
- detailed survey validation (refer Section 9.13.5); and
- survey report (refer Section 9.13.6).

9.13.8 Detailed Survey

Where required by the Principal, the Technical Advisor shall supplement the extracted information from the TLS using traditional surveying techniques. The detailed survey capture to supplement the extracted topographic survey is for any critical elements impacted by the works that require further definition including but not limited to:

(a) Survey on Track Turnouts and Catch Points

- points to be located at blade tips and end of switch rail at heel;
- identify tangent points where easily identified – or string-lined theoretical point–otherwise locate existing face of crossing 'nose';
- long and short legs of crossing unit to be located;
- crossing identification to be taken where possible i.e. rail weight and crossing angle and catalogue number if any;
- changes of rail profile – e.g. 47kg into 53kg rail;
- points motor or hand lever location complete with assigned number;
- last tied bearer of turnout identified as a string line;
- all significant changes in existing Railway Track geometry i.e. locate approximate theoretical points at start and end of straight Railway Track sections, CTPs on reversing curves and obvious bends in straight Railway Track where no curve exists;
- changes in sleeper type to be indicated. Where these are mixed e.g. timber or concrete, indicate with a note;
- the running face of both rails must be accurately located by established techniques acceptable to the Principal; and
- all insulated Railway Track joints, if any, must be located – running face at centre of joint.

(b) Any other rail feature considered necessary for the finalisation of the concept design.

9.13.9 Drainage Detail Survey and Investigations

The Technical Advisor shall survey and investigate existing drainage infrastructure as follows:

(a) all on Railway Track and off Railway Track drainage infrastructure i.e. headwalls, culverts, pits, pipes, lobster pots and their respective invert levels, surface levels and structure dimensions. The Technical Advisor must obtain full details of all inlet and outlet and sill dimensions and direction of flow;

(b) where an existing substantial watercourse passes under the Railway Track through culverts, drains etc. cross-sections are required at 10m intervals for 50m into the adjacent property from the existing rail corridor fence line and at points that define the shape of the watercourse on both sides of the rail corridor; and

(c) GIS data of all contributing upstream external Council/ Sydney Water Corporation (SWC) drainage infrastructure.

- The Technical Advisor shall determine if the existing drainage infrastructure is adequate for the design, including establishing the condition of drainage infrastructure. The condition assessment must be achieved by visual inspection and photographs of the inside drainage pits and head walls etc.; and
- CCTV of all buried drainage infrastructure, pipes and culverts. CCTV footage and photographs must be provided and catalogued at each existing drainage feature and their respective marked kilometrages (if any).

The results of the drainage detailed survey investigations must be fed into the production of the detailed Hydrology & Drainage Report.

9.13.10 Cadastral Boundary Overlay and Property Database

The Technical Advisor must prepare a contiguous cadastral model for the project scope. The model must be prepared using information shown on existing deposited plans to provide a cadastral boundary overlay suitable as a base for use in design and planning.

Copies of all deposited plans and title searches utilised in the preparation of the cadastral boundary overlay shall be provided to the Principal in an electronic format. Costs of plan, title and SCIMS searches are deemed to be included in the rates and prices set out in the Schedule of Rates.

In areas where the existing deposited plans do not provide adequate connection to control, or where discrepancies are identified between existing plans, the Technical Advisor must enhance the cadastral model by carrying out field surveys to connect the model to additional control marks. The accuracy of all boundaries within the model shall be +/-50mm or better.

Following adjustment of the model, the Technical Advisor must verify the accuracy of the model by comparing the calculated coordinates of boundary corners against independent 'check' points observed during field surveys. The check points must be independent of those points adopted as control points during the adjustment of the model and shall be evenly distributed along the scope area at intervals of no more than 300m. The Technical Advisor shall report on the discrepancies between the calculated and surveyed coordinates of each

check point in the Survey Report. At major road intersections, the Technical Advisor shall report on the position of existing monuments and occupations including fences, walls and buildings relative to the calculated boundary locations and shall compare calculated road widths with those shown on existing deposited plans. The Technical Advisor shall also compare the charting shown in the cadastral boundary overlay with a recent version of Spatial Services Digital Cadastral Database (DCDB) to confirm the currency of the information shown.

9.13.11 Cadastral Boundary Overlay Deliverables

The specific deliverables relating to this aspect of the Project are:

- ESRI Cadastral Fabric geodatabase layer;
- *.pdf file (1:5000 or larger @ A3) map book showing each parcel that forms part of the cadastral boundary overlay;
- *.dwg file format showing all parcels with lot/deposited plan information and road names shown as text;
- a report from a registered surveyor: confirming that all boundaries within the model meet the Principal's accuracy requirements, process of preparing the model and confirmation of model coordinate attributes i.e. MGA Grid, MGA Ground, origin of coordinates etc.; and
- electronic copies of all title and plan searches used in the preparation of the cadastral boundary overlay.

9.14 SCOPE OF TECHNICAL DISCIPLINE AREA – GEOTECHNICAL

9.14.1 General

The Technical Advisor shall undertake geotechnical investigations to inform the concept design for the Project (and each part).

9.14.2 Geotechnical Fieldwork

The Technical Advisor must carry out the geotechnical investigation in accordance with, but not limited to, the following guidelines:

(a) AS1726 Geotechnical Site Investigations;

(b) AS1289 Methods of Testing Soils for Engineering Purposes;

(c) one vertical borehole test at the location of each new crossover, turnout, slip, ULX, new bridge abutments and new bridge piers (including where underwater); and

(d) rock mapping undertaken by visual inspection where the rail corridor is in a cutting.

The Technical Advisor will be responsible for determining the exact locations of the testing, taking due consideration of underground/overhead services, road closure requirements and other operational constraints (including the need for track

possessions). The Technical Advisor must obtain the Principal's written agreement for the proposed frequency of tests and test locations prior to commencement.

Laboratory Analysis

The Technical Advisor must conduct soil testing at all bore hole test locations on disturbed and undisturbed soil samples collected during the fieldwork in accordance with the methods listed below:

Table 3 – Soil Sampling Methods

Laboratory Test		Test Method
Field Moisture Content		AS1289.2.1.1
Particle Size Distribution (Grading)		AS1289.3.6.1
Hydrometer		AS1289.3.6.3
Atterberg Limits including linear shrinkage		AS1289.3.3.1
Undrained Triaxial Testing		AS1289.6.4.2
Emerson Crumb Dispersion		AS1289.3.8.1
1D Consolidation Test		AS1289.6.6.1
Compaction & California Bearing Ratio		AS1289.6.1.1 AS1289.5.4.2
Classification of soil aggression against steel and concrete	pH	USEPA 9045
	Cl	APHA 4500-Cl
	SO4 for soil aggressivity (sulphate soluble)	APHA 4110

A minimum of two (2) soil samples must be collected per test location at depths appropriate to the proposed construction, in accordance with ASA standards, and sufficient to satisfy the testing requirements.

The Technical Advisor must ensure sample testing is carried out at NATA accredited laboratories and provide sufficient information to prepare the Geotechnical Factual Report. If an alternative scope of laboratory testing is considered appropriate, this may be proposed by the Technical Advisor for review and approval by the Principal.

The Technical Advisor must store soil samples recovered from the field until at least twelve (12) months after the date that the final fieldwork is completed. If requested, at the end of the twelve (12) month period the Technical Advisor must deliver all

samples to a storage area nominated by the Principal. Samples must not be disposed of without the prior written consent of the Principal's Representative.

9.14.3 Geotechnical Reports

(a) Geotechnical Factual Report

The Technical Advisor must produce a "Geotechnical Factual Report" containing a brief description of the investigation, stating the aim of the investigation, the numbers and types of 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 encountered.

The following items must, where applicable, be covered in the Geotechnical Factual Report:

Table 4 – Geotechnical Factual Report Elements

Report Element	Requirement
Description of Site	A full description of the investigation site must be given. The grid reference must be stated and such other information required to clarify the identity and location of the site.
Geotechnical Investigation Summary Plan	A summary plan must be provided showing the actual location of each test pit. The location of any field tests and geotechnical observations must be shown. This location plan must be presented in A3 format to show the relationship of the boreholes to neighbouring existing buildings or other easily identified landmarks. The scale of the plan must be clearly indicated as well as the north point.
Cone Penetration Test Records	Cone penetration test records must be prepared in accordance with the requirements described in Appendix 2.
Comment on Groundwater	The report must include sketches and details of standpipe piezometer construction. Standpipes must be registered and licensed by the Department of Planning & Environment. The Technical Advisor must state whether it considers that there is a permanent water table within the depth explored or whether perched water tables exist.

Report Element	Requirement
Comment on Field Tests	The Technical Advisor 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 and statistical analysis conducted where a; ; ro; riate.
Comment on Laboratory Tests	The Technical Advisor 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 a; ; ro; riate.

Unless otherwise stated, all reports must be based on International System of Units (SI) units.

The Geotechnical Factual Report must be submitted as a draft for the Principal's Representative review and comment prior to submission of the final report.

(b) Geotechnical Interpretation Report

The Technical Advisor must produce a "Geotechnical Interpretation Report" to provide a detailed interpretation of the site(s) with appropriate recommendations and information sufficient to facilitate detailed design.

The following items must be covered:

(i) interpretation of relevant geotechnical design parameters;

(ii) recommendations relating to subgrade preparation for fill embankments;

(iii) recommendations relating to cut batter designs, excavatibility and support/retention;

(iv) recommendations for all foundations types, founding strata and relevant design parameters related to the Works;

(v) advice regarding unsuitable material;

(vi) recommendations for construction control testing and monitoring to confirm that parameters assumed in the design have been achieved during construction;

(vii) advice regarding local hydrogeological regime;

(viii) advice regarding any other geotechnical constraints identified; and

(ix) advice regarding areas of specific geotechnical risk and recommendations for further investigation or mitigation measures as appropriate.

The Geotechnical Interpretation Report must be submitted as a draft for the Principal's Representative review and comment prior to submission of the final report.

9.14.4 Contamination Assessment

(a) General

The Technical Advisor must comply with the specification in Appendix 3 during the soil and groundwater sample collection, storage and analysis.

(b) Preliminary Site Investigation

For a description of the required preliminary site investigations, refer to section 9.4.4 of the Services Brief.

(c) Detailed Site Investigation

(i) General

Subsequent to the submission of the preliminary site investigation contamination assessment report, the Principal's Representative will review the Technical Advisor's recommendations for the detailed site investigation contamination assessment.

- The final scope for site investigation works must be approved by the Principal's Representative. Accordingly, the Technical Advisor must submit a plan detailing the type, frequency and location of contamination soil testing laboratory analysis required, for the Principal's written approval, prior to commencement of collecting any field samples.

The Technical Advisor must undertake the detailed site investigation contamination assessment in accordance with OEH/EPA guidelines, including the EPA Waste classification guidelines Part 4: Acid sulfate soils.

(ii) Soil Investigation

- Soil samples must be collected from the test pits/ bore holes during the concurrent geotechnical investigation, generally at ground surface, near surface and immediately below the fill/residual soil interface sampling at a rate of 1 sample each bore hole. Further soil samples must be collected by the Technical Advisor as field observations dictate.

All soil samples must be field screened for volatile organic compounds using a calibrated photoionization detector (PID).

All soil samples must be collected in accordance with appropriate field operating procedures.

Representative samples must be forwarded to a NATA accredited laboratory for subsequent analysis. Laboratory analysis must include a minimum of 10% quality control duplicate samples. Samples nominated for analysis must be selected by an experienced field engineer, based on PID results and visual/ olfactory observations made during sampling. Subsequent reporting by the Technical Advisor must include justification for the nomination of samples for analysis.

(iii) In-situ Preliminary Waste Classification

- Toxicity Characteristic Leaching Procedure (TCLP) and subsequent analysis of the leachate must be undertaken on soil samples with chemical concentrations in excess of the criteria (soil only) for classification as general solid waste in [Table 1 in EPA's Waste Classification Guidelines Waste Classification Guidelines – Part 1: Classification of waste November 2014].

(iv) Groundwater Investigation

All groundwater wells must be installed to a depth not less than two metres into the saturated soil zone. Wells must be developed, gauged, purged and sampled in accordance with appropriate field operating procedures.

All groundwater samples must be forwarded to a NATA accredited laboratory for subsequent analysis as detailed. The Technical Advisor must ensure that the laboratory level of reporting for each analysis is less than the nominated investigation levels. The groundwater sampling program must include a minimum of 10% quality control duplicate samples and the preparation and analysis of a groundwater trip blank, trip spike and reinstate blank sample.

As a minimum, groundwater sampling locations must be professionally surveyed (position and level) to allow the evaluation of groundwater flow directions.

(v) Laboratory Analysis

The Technical Advisor must ensure sample testing is carried out at NATA accredited laboratories and provide sufficient information to prepare the Detailed Site Investigation Contamination Assessment Report. If an alternative scope of laboratory testing is considered appropriate, this may be proposed by the Technical Advisor for review by the Principal's Representative.

The contamination laboratory testing must comprise the following:

- **Table 5 - Laboratory Testing Requirements**

Testing	Number of tests
ENM assessment	
ENM	To be determined by the Technical Advisor following preliminary site investigations (and approved by the Principal)
Asbestos (presence/absence)	
Asbestos (NEPM)	
TCLP prep, PAH * HM	
Ballast assessment	
TRH/BTEXN/PAH/HM*8	To be determined by the Technical Advisor following preliminary site investigations (and approved by the Principal)
OCP	
Herbicides (phenoxy acid)	

Testing	Number of tests
Herbicides (triazine)	
Asbestos (presence/absence)	
TCLP prep, PAH * HM	
ASS below ground level	
Screening	To be determined by the Technical Advisor following preliminary site investigations (and approved by the Principal)
SPOCAS	

(vi) Contamination Assessment Report

The Technical Advisor must produce a "Detailed Site Investigation Contamination Assessment Report" in accordance with OEH/EPA guidelines, including the EPA Waste classification guidelines Part 4: Acid sulfate soils.

The assessment report must provide comprehensive information on the issues raised in the preliminary site investigation contamination assessment and confirm the type, extent and level of contamination.

This report must include, but not be limited to, the following assessments:

(a) contaminant dispersal in air, surface water, groundwater, soil and dust;

(b) the potential effects of contaminants on public health, the environment and building structures;

(c) (where applicable) off-site impacts on soil, sediment and biota; and

(d) the adequacy and completeness of all information available to be used in making decisions on remediation.

Site-specific clean-up levels must be developed by applying risk assessment methods. The Technical Advisor must contact the OEH to discuss appropriate procedures.

If the results of the detailed site investigation indicate that the site poses unacceptable risks to human health or the environment – on-site or off-site, and under either the present or the proposed land use – then a remedial action plan needs to be prepared and implemented.

The Technical Advisor must submit the Detailed Site Investigation Contamination Assessment Report as a draft for the Principal's Representative review and comment prior to submission of the final report.

Appendix 2 Geotechnical Assessment Guidance Note

GEOTECHNICAL INVESTIGATION GUIDANCE NOTE

1. Borehole Drilling

General

The method of advancement and the diameter of a borehole shall be such that the boring can be completed and logged to the scheduled depth, and samples of the specified diameter can be obtained, in situ testing carried out and instrumentation installed as described in this Appendix.

The borehole drilling, testing and sampling works shall be undertaken under the full-time supervision of an experienced geotechnical engineer or engineering geologist.

Location of Test Holes

Each test hole/position shall be located by the Technical Advisor in accordance with the Services Brief. The location and depth of each test hole shall be as described therein.

The final proposed test locations must take into consideration the requirement for suitable geotechnical information, the availability of previous information, safe working conditions, attempting limited disturbance and minimising of environmental impact. Revised test hole positions and depths may be proposed by the Technical Advisor to the Principal for agreement. The Technical Advisor must ensure that the revised test hole positions are such that the intent and purpose of the original test hole is maintained.

The Principal may, after consultation with the Technical Advisor, vary the location and depth of any test hole/location and the sequence or quantity of in situ testing, depending on the actual ground conditions encountered. When the position of a test hole/location has been varied, the Technical Advisor shall take all necessary measurements and shall inform the Principal of the revised coordinates and ground elevation or other measurements required to locate the test hole/location.

Survey of Test Locations

The Technical Advisor shall provide a survey of all borehole locations, start/finish points of seismic runs and any other significant features. The surveyed coordinates shall be Map Grid Australia (MGA94) Zone 56 coordinates, to 0.1 m accuracy, in the format of Easting, Northing and Elevation (relative to Australian Height Datum (AHD)).

The coordinate locations shall be included in the Geotechnical Factual Report and all such locations shall be clearly shown on plan diagrams and relevant drawings and borehole logs.

Pavement Coring

The Technical Advisor shall undertake coring of pavements, and reinstatement of the pavements following drilling, unless otherwise directed by the Principal.

Types of Equipment

Auger drilling in soils must be undertaken. An alternative method can be proposed by the Technical Advisor but must not be undertaken without the prior approval of the Principal. Coring must be commenced within 0.5 m of the soil/weathered rock interface being detected. Rotary core drilling in rock shall be carried out by a triple tube coring system incorporating a removable inner liner.

Borehole/Core Size

Rotary core drilling from the surface to depth shall produce cores of minimum NMLC diameter on all boreholes. Where monitoring wells are to be installed and/or packer testing is to be undertaken, the minimum borehole/core size shall be HQ. Where pump drawdown tests are to be undertaken, the borehole/core size shall be a minimum of HQ and may be larger, depending on the size of pump proposed to undertake the testing.

Drill Runs

The first drill run in each hole shall not exceed 1m in length. Subsequent drill runs shall not normally exceed 3m in length and the core barrel shall be removed from the drill hole as often as is required to obtain the best possible core recovery. When less than 95% core is recovered from a run, the length of the following run must be reduced to 1.5m.

The Technical Advisor shall control the velocity and the drill pressure, flow and pressure of water and length of drill run so as to obtain the maximum possible recovery of core.

A borehole remaining open overnight shall be adequately covered and protected if the rig is not set up over it.

On completion of the borehole, the relevant hole shall be cleaned out fully with clean water in preparation for in-situ testing, if such testing is required.

Drilling Fluid

The drilling fluid shall normally be clean water. However, with the prior agreement of the Principal, non-toxic, biodegradable drilling muds, additives or foam may be used. The Technical Advisor is responsible for arranging for an adequate supply of water for the drilling and testing works.

Groundwater Levels

The depth to groundwater and depths of water ingress observed during drilling shall be recorded where the drilling method does not preclude these observations.

Removal of Cores

All operations entailed in recovering the cores from the ground after completion of drilling shall be carried out in a manner such as to minimise disturbance to the cores. Core barrels shall be held horizontally while the inner most liner containing the core is removed without vibration and in a manner to prevent disturbance to the core. The core must be rigidly supported at all times while it is being extruded and during subsequent handling and the liner containing the core must not be allowed to flex.

Immediately after removing the liner the top and bottom shall be marked in indelible ink.

Where the length of core recovered from any single core run is such that it cannot be accommodated in one channel of the core box, the core shall be cut to coincide, if possible, with existing fractures. This man-made break must be marked on the core.

Sample Packing, Labelling, Storing

Core boxes shall be soundly constructed of metal.

Cores shall be rigidly and securely packed at the site of drilling and during all subsequent handling and storage the cores shall remain packed unless required for examination or testing. Cores shall be placed in the box with the shallowest core to the top left hand corner.

Cores from the core catcher shall also be placed in the core boxes at the correct relative depth.

Cores shall be labelled in accordance with AS 4133.5 – 2002 Sampling of Rock Core. In addition, depth shall be indicated on the core box by durable markers at the beginning and end of each drill run. Rigid core spacers shall be used and appropriately labelled to indicate core loss. The Contract/Agreement title, Portion reference, borehole reference number and the depth of coring contained in each bore shall be clearly indicated in indelible ink inside, on top and on the left-hand end of the box.

Core boxes containing core shall be kept horizontal and moved and handled with care at all times. Boxed and labelled core shall be photographed prior to being moved. Cores shall be protected to ensure that their temperature does not fall below 2°C or rise above 45°C. They shall also be protected from direct heat and sunlight. At the end of each day's work, core boxes shall be stored secure from interference and protected from the weather.

The Technical Advisor is responsible for the storage of soil and rock samples recovered from the field for a period of 6 months from the site investigation. At the end of 6 months, the Technical Advisor shall deliver all soil and rock cores to a storage area nominated by the Principal for the period of time nominated in section 9.14.2.

Samples shall not be disposed of without the prior written consent of the Principal.

Preparation of Cores for Examination

The cores shall be examined and described on site by an experienced geotechnical engineer/engineering geologist and in accordance with AS1726 – 1993 Appendix A, Description & Classification of Soils & Rock for Geotechnical Purposes.

Retention of Core Sub-Samples

When the examination and photographing of the cores have been completed, core subsamples can be taken for laboratory testing. They shall be clearly labelled so that the location, depth and origin of the sub-samples can be readily identified. Rigid spacers shall be placed in the spaces in the cores boxes previously occupied by the

core sub-samples to prevent movement of adjacent cores and these shall be labelled identically to the core sub-samples that they replace.

Protection and Transportation of Cores

The Technical Advisor shall protect all cores for transport. Samples for laboratory testing will be transported as soon as possible to the laboratory. Samples shall be stored and managed in accordance with "Sample Packing, Labelling, and Storing".

Photographs

In addition to the photographic requirement of "Sample Packing, Labelling, Storing", the Technical Advisor shall photograph cores in a fresh and clean condition prior to removal of samples for laboratory or point load testing and ensure that the following criteria are fulfilled:

- a graduated scale in centimetres is provided;
- labels and markers are clearly legible in the photograph;
- a clearly legible reference board identifying the project title, borehole number, date and depth of drill runs shall be included in each photograph;
- core boxes are evenly and consistently lit;
- the length of the core box in each photograph fills the frame;
- the focal plane of the camera and the plane of the core box are parallel; and
- the camera is placed in the same position with respect to the core box in every photograph.

Piezometers and Backfilling

Piezometers shall be installed at [nominated locations and in accordance with the requirements of "Water Testing and Sampling".

The Technical Advisor shall backfill boreholes with a cement:bentonite grout unless a standpipe piezometer is to be installed.

All excess drill cuttings from the boreholes must be locally distributed across vegetated areas.

In the event that a suitable location for spoil disposal is not readily available, or if visually identifiable suspected contaminated material is encountered, the material must be temporarily stockpiled or bagged, awaiting off-site disposal.

2. In Situ Soil and Rock Testing and Sampling

Calibration of Measuring Instruments

Where load, displacement or other measuring equipment is used which necessitates regular calibration then this shall be carried out in accordance with the manufacturer's instructions.

Evidence of calibrations and copies of calibration charts shall be supplied to the Principal prior to commencing work and when otherwise requested.

Testing

The following information shall be submitted for each test record to be included in the borehole log:

- date of test;
- project name, borehole number and location;
- depth and location of test or depths covered by test, as appropriate, together with reduced levels on preliminary logs and in the final report;
- information on water levels in borehole during testing;
- original ground level at test site; and
- soil / rock type and description as identified from the sample.

All results must be reported in SI units.

Standard Penetration Tests and Thin Wall Tubes

Standard penetration tests must be carried out in accordance with AS1289.6.3.1. The number of blows for every 150 mm of penetration for the full 450 mm of driving must be recorded unless refusal occurs (>30blows/150 mm). In the event of refusal, the number of blows conducted and the penetration achieved in the 150 mm segment being progressed at the point of refusal. Standard Penetration Tests (SPT) must be carried out within the regolith in each borehole location at regular depth intervals of 1.5m in order to assess the relative density/consistency of the soils encountered, and to obtain disturbed samples for laboratory testing.

Thin wall tubes must be recovered at selective depths within cohesive strata, in lieu of, or in conjunction with SPTs, in order to obtain 'undisturbed' samples for specialised laboratory testing. At least one such sample shall be obtained for each cohesive soil strata encountered in each of the boreholes. These samples must be sealed with wax, wrapped in cling wrap, appropriately handled and stored to avoid disturbance. If soft to firm clays are encountered, hand vane shear testing must be performed through the base of such samples whilst still on site, prior to sealing and transport.

Hand Vane

Hand vane tests shall be conducted in accordance with AS 1289.6.2.1 – 1997 in thin wall tube samples of cohesive strata. The hand vane used shall be calibrated in accordance with NATA requirements.

Geochemical Testing

Initial 'screening level' testing for soil/groundwater aggressiveness to buried steel and concrete shall comprise pH and Electrical Conductivity (EC) testing on soil and groundwater samples obtained during the intrusive investigations. Such samples must be obtained in plastic (clip-lock) bags for the soils and in laboratory-clean glass jars for the water.

The soils shall be tested as a 1:5 soil to de-ionised water mix. Equivalent conductivities (ECe) shall be calculated from the raw EC results using soil texture factors and soil classification as defined within "Dryland Salinity Extension Notes" – Scott Taylor (1996).

Following review of the test results, further chloride, sulphate and manganese testing shall be conducted on a 'most adverse result' and site 'coverage' basis in order to ascertain the recommended level of protection against chemical attack to buried concrete and steel.

Recording Depths of Samples

The depths below ground level at which samples are taken shall be recorded. The depth to the top and bottom of the sample, and the length of sample obtained must also be given.

Backfilling

Back filling of test pits for ULXs must be completed in accordance with ASA standards.

3. Laboratory Testing

The Technical Advisor must schedule samples for testing. [It may be necessary to specify additional testing after the results of the original tests are available.

All the testing shall be carried out by a laboratory that is NATA accredited for all the testing being carried out.

Appendix 3 Contamination Assessment Guidance Note

CONTAMINATION ASSESSEMENT GUIDANCE NOTE

1. Collection of soil samples from drill rig

The preferred method of sample collection is by using a split spoon sampler (or other similar barrel sampler) for the collection of discrete soil samples.

Although the frequency of soil sample collection is dependent upon the variability in ground conditions, as a general guide, soil samples must be collected from the surface and at approximately the 0.3 – 0.5 m and 0.8 – 1.0 m depth range. These depth intervals may be varied according to variations in lithologies encountered.

Sample intervals must not span interfaces of significantly different lithologies (or variations in the nature of fill material) or interfaces of materials of significantly different apparent level of contamination. Below 1 m, samples must be collected at a rate of one per 1 m (or as considered appropriate) and below 5 m at a rate of one per 1.5 m. The Technical Advisor shall identify natural soil below fill and sample it.

In some instances, it is appropriate to sample directly from the solid auger. Competent soils above the saturated zone can be sampled directly from the solid auger provided appropriate decontamination procedures are undertaken, including removal using appropriately decontaminated spatula or knife of all soil which has been in contact with either the solid auger or the extremities of the borehole above the target depth. Appropriate justification must be given for the choice of sampling method.

2. Decontamination of sampling equipment

Equipment that will come in to contact with samples shall be decontaminated before commencing investigations and between sampling events or, in the case of some pieces of equipment (e.g. drill rods), between investigation locations.

Equipment that will typically require decontamination includes, but is not limited to: hand augers, sample bowls, split spoons, trowels, drill rods, drill bits, PVC well casing, bailers, groundwater pumps, and monitoring equipment such as interface probes.

Depending on the equipment, decontamination procedures shall include high-pressure steam cleaner, high-pressure water cleaner; or detergent wash (Decon 90) and water rinse.

3. Sample Handling

Each sample must be placed in an individual sample container provided by the analytical laboratory for the sample type and tests to be conducted. The container must be clearly identified using a self-adhesive label marked with waterproof ink.

Information marked on the sample label must be sufficient to provide unique identification of the sample and exactly match the identifier listed in the chain of custody form.

The integrity of the sample must be maintained so that the sample received for analysis by the laboratory represents the condition of the environmental segment (soil, water, groundwater, sediment, sludge, etc.) from which it was sampled.

Samples must be kept in appropriate sealed containers, away from heat and light. All samples must be stored in a cooler with ice bricks or ice. Coolers must be sent to the project laboratory as soon as possible and within sample holding times. Samples must be sent to the project laboratory with correct chain of custody documentation.

4. Groundwater well installation

The monitoring well shall comprise a well screen section, casing, a gravel pack placed in the bore annulus adjacent to the screen to promote aquifer fines retention, a bentonite seal above the gravel pack, backfill of the annulus to near surface; and a protective casing or cover over the surface standpipe which is concreted securely into the surface.

Environmental monitoring wells must be constructed using Class 18, 50 mm nominal diameter PVC pipe. The pipe ends must be screw threaded with a rubber O-ring seal.

Other joining methods may introduce contaminants (solvent glues) or impinge on the smoothness of the internal well (drilled and screwed).

The gravel pack must typically extend to 0.5 m above the screen section. The depth of the gravel pack must be measured and noted. A bentonite seal must be introduced immediately above the gravel pack to prevent the migration of water along the bore annulus and to prevent grout or backfill materials contaminating the filter pack. Compressed bentonite pellets are preferable for forming the seal.

Following construction, all wells must be developed to remove any drilling materials and fluids introduced into the aquifer and well construction materials, to remove fines from the aquifer and gravel pack, and to provide a good hydraulic connection between the well and the aquifer. Bore development must be conducted no sooner than 24 hours after construction is complete to allow for the bentonite and cement seals to stabilise.

5. Groundwater sampling

Wells shall be purged prior to sampling, stabilisation criteria (pH, electrical conductivity (EC), dissolved oxygen (DO), temperature and redox potential (Eh)) shall be measured as an indication to when purging is complete. A calibrated measuring instrument must be used and evidence of calibration must be retained on file.

A groundwater sample must be collected after the measured parameters have stabilised.

Once collected, groundwater samples must be labelled and stored in ice chilled cooler boxes. Samples must be kept out of the sun. Samples must be returned to the laboratory under chain of custody documentation. Verified copies of the chain of custody documentation must be retained.

Appendix 4 TfNSW Standard Requirements (PSC)

TfNSW Standard Requirements (PSC)

5TP-FT-410/3.0

Template – Applicable to Infrastructure and Services

Divisional Management System

Status:	Approved
Version:	3.0
Branch:	Program Management Office
Section:	Commercial
Business unit:	Procurement
Date of issue:	13 February 2018
Review date:	13 February 2019
Audience:	Project Delivery/For use with the Contract templates
Asset classes:	☒ Heavy Rail; ☒ Light Rail; ☒ Multi Sites; ☒ Systems; ☒ Fleets
Project delivery model:	I&S Project/Alliance/Novo Rail
Project type:	For all project types
Project lifecycle:	☐ Feasibility; ☐ Scoping; ☒ Definition; ☒ Construction readiness; ☒ Implementation; ☐ Finalisation; ☐ Not applicable
Process owner:	Director Commercial

Document History

Version	Date of approval	Doc. control no.	Summary of change
1.0	19 August 2015	4542197_1	New consolidated TSR document replacing the suite of individual TSRs (TSR C, TSR E, TSR P, TSR S, TSR T) for use with the PSC Templates Includes revisions to TSR P elements re Planning & Scheduling
2.0	18 February 2016	4373714_6	Updated with feedback from functional areas and projects
3.0	13 February 2018	4373714_9	Technical content moved to Services Brief, duplications with Agreement requirements deleted. Reordered to support Annexure layout

Note - this document includes hyperlinks to TfNSW authored reference documents.

Where the TfNSW reference document is publicly available, the link will take the user to TfNSW's Internet website, where the particular reference document can be located. Access to these documents is available to all users.

Where the TfNSW reference document is not publicly available, the link will take the user to TfNSW's intranet and the QMS system where the document is located. Access is limited to users with TfNSW intranet access. Contractors do not have access to QMS and must therefore be provided with these reference documents as part of the Agreement. The list of these reference documents can be found in Annexure I of this TSR.

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1. Introduction

(a) This TfNSW Standard Requirement (TSR) describes TfNSW's requirements and processes for the management of the Services.

(b) The Professional Services Contractor must comply with the requirements detailed in this TSR, including its Annexures unless noted otherwise in Annexure A - Additional Project Requirements.

(c) The Professional Services Contractor must comply with the requirements of the Reference Documents listed in Annexure I of this TSR.

(d) Wherever used in this TSR, capitalised words and phrases have their general dictionary meaning unless otherwise noted in the Agreement or Annexure B of this TSR.

2. Project Administration

2.1. Submitting Documents to the Principal's Representative

Wherever this TSR requires the Professional Services Contractor to submit Contract Material or other Documents or information to the Principal's Representative for review, the Principal's Representative may review and provide comments which must be addressed by the Professional Services Contractor in a timely manner and to the satisfaction of the Principal prior to the related Services are commenced.

2.2. Contract Management Plan (CMP)

(a) The Professional Services Contractor must have in place, maintain and consistently apply until Final Completion, a Contract Management Plan and sub plans describing how the project will be delivered (unless specified otherwise in Annexure A). The CMP must include the content described in Annexure C.

(b) The Services must be carried out in accordance with the CMP.

(c) The timing and frequency for the initial and subsequent submissions of the CMP to the Principal's Representative for review in accordance with the Agreement, is nominated in Annexure A of this TSR.

2.3. Professional Services Contractor's Program

Without limiting the Agreement, the Professional Services Contractor's Program and all other programs must comply with the requirements of Annexure D.

2.4. Document Management

The Professional Services Contractor must use the nominated electronic document management tool listed in Annexure A.

2.5. Monthly Reporting

Unless otherwise noted in Annexure A, the Professional Services Contractor must prepare and submit a progress report on a monthly basis which complies with Annexure H, to the Principal's Representative for review.

2.6. Audit

(a) Should the Principal establish a Compliance Working Group (CWG), the Professional Services Contractor must provide suitably competent attendees and resources until Completion.

(b) The Professional Services Contractor must attend the CWG meetings and participate efficiently to ensure the success of the CWG as well as ensuring that all audits are coordinated, lead and managed through the CWG.

(c) The Principal may also utilise independent auditors to assist with its Inspections including audit and surveillance.

(d) When any audit or Inspection is to be undertaken by the Principal, the Professional Services Contractor must:

i. make available, all records and Documents;

ii. make suitable facilities available to accommodate the audit and audit team; and

iii. provide all reasonable assistance during the audit including the participation of representatives from the Professional Services Contractor and Subcontractors organisations.

(e) The Professional Services Contractor must ensure that all recommendations arising from any audit are actioned in accordance with appropriate corrective and preventive systems in a timely and agreed manner.

(f) The Professional Services Contractor must provide the Principal's Representative with a program of audits and the audit results when requested.

2.7. Training, Competence and Reference Checks

The Professional Services Contractor must ensure that all persons engaged in carrying out the Services:

(a) are inducted, appropriately trained and made aware of the requirements of the Agreement with particular focus on incident management/reporting procedures, community enquiries or complaints and media enquiries, prior to commencing any Services, or other functions on Site;

(b) maintain records of all training and inductions carried out;

(c) attend any training provided by the Principal specified in Annexure A;

(d) when directed by Principal's Representative, are subject to police criminal record checks. The Professional Services Contractor must promptly notify the Principal's Representative if any offences have been recorded; and

(e) in relation to plant, that all operators hold certificates of competency and are assessed and deemed competent to operate the plant for its intended use to the satisfaction of the Professional Services Contractor.

2.8. Incident Management

(a) The Professional Services Contractor must provide immediate verbal notification to the Principal's Representative of any Incident or Issue.

(b) The Professional Services Contractor must immediately report all Incidents using the InControl Incident Management System (INX). Should INX not be accessible, the Professional Services Contractor must report in a manner that enables effective and subsequent recording into INX.

(c) The Professional Services Contractor must undertake a preliminary investigation of all Incidents within 5 Business Days of the Incident, unless otherwise agreed by the Principal's Representative. Major Incident investigations must be completed within 20 Business days of the Incident. Terms of reference for major investigations will be issued by the Principal. If the Principal's Representative requires the appointment of

an external independent investigator, the Professional Services Contractor will bear the cost of the appointment.

(d) The Principal may participate in any investigation being undertaken by the Professional Services Contractor or initiate its own investigation. If the Principal instigates its own investigation, the Professional Services Contractor must provide the Principal with all assistance reasonably required for the purposes of the investigation, this includes the waiver of legal professional privilege over any investigation report prepared by, or on behalf of, the Professional Services Contractor. The Parties may agree that any investigation report that is subject to legal professional privilege may, between the Professional Services Contractor and the Principal, be subject to a common interest privilege.

(e) For all environmental Incidents, the Professional Services Contractor must comply with the requirements of "TfNSW Environmental Incident Classification and Reporting 9TP-PR-105" and "TfNSW Environmental Incident Non-Compliance Report 9TP-FT-101" in relation to all environmental Incidents.

(f) In the event of an Incident or Issue, the Professional Services Contractor must not contact or provide information to any person (other than that which is required to directly manage the Incident or to comply with law), including any stakeholder, the media or the public, without the prior approval of the Principal. The Professional Services Contractor must make available senior personnel to respond to the community, the media and other stakeholders when required by the Principal.

(g) All notifiable occurrences under WHS, Rail Safety National law or Maritime law must be reported immediately to the Principal's Representative and to the relevant Regulatory Authority. Where any type of notice, infringement or fine by a Regulator has been issued to the Professional Services Contractor in relation to undertaking the Services, the Professional Services Contractor must immediately notify the Principal's Representative and provide a copy of the notice, infringement, or fine within 24 hours of receiving it.

(h) The Professional Services Contractor must provide the Principal with all necessary Communications Materials that may need to be disseminated as a result of such incidents, when required by the Principal.

3. Planning, Sustainability and Environmental Management

The following requirements apply to the extent specified in Annexure A.

3.1. Planning and Approvals

(a) Where the Professional Services Contractor is responsible for a submission to an Authority for an approval, or where an Authority requests a document submission, the Professional Services Contractor must provide that submission to the Principal's Representative for review, prior to issuing to the relevant Authority. Where the Principal provides comments, the Professional Services Contractor must first address the comments and provide a final submission to the Principal's Representative with a request to forward to the relevant Authority. The Professional Services Contractor must adequately address all comments to the satisfaction of the Principal's Representative prior to submitting to the Authority.

(b) The Professional Services Contractor must comply with the nominated environmental compliance monitoring system, where nominated in Annexure A.

(c) In the event pre-commencement activities are required, the Professional Services Contractor must submit the details of the pre-commencement activities to the Principal's Representative for review and approval.

(d) Consistency checklists and Environmental Reviews are to be completed by the Professional Services Contractor where stated in Annexure A.

(e) The Professional Services Contractor must not communicate (phone, mail, email etc.) directly with any Authority unless written consent is provided by the Principal and a communications protocol has been established.

3.2. Environmental Management

(a) The Professional Services must provide sufficient competent environmental resources on and offsite to ensure compliance with the Environmental requirements, and the broader requirements of the Agreement.

(b) All activities in connection with carrying out the Services must be completed in accordance with TfNSW's suite of Environmental Guidelines.

(c) The Professional Services Contractor's Environmental Management System (EMS) must comply with the requirements stated in Annexure A.

(d) Where non compliances or Incidents arise in the Professional Services Contractor's Site based activities, "TfNSW Environmental Incident Non-Compliance Report 9TP-FT-101" must be completed by the Professional Services Contractor and returned to the Principal's Representative within 48 hours.

(e) Where specified in Annexure A, The Professional Services Contractor must develop, implement and maintain Environmental Control Maps (ECMs) in accordance with all Authority approvals and comply with "TfNSW Guide to Environmental Control Map 3TP-SD-015" as well as preparing each ECM as a map in both A0 and A3 sizes.

(f) The Professional Services Contractor must progressively review and update the ECMs (to incorporate works progression and changing characteristics of the Site), amending environmental protection measures where those identified fail to achieve continuous compliance with the environmental obligations under the Agreement.

(g) The Professional Services Contractor must submit all ECMs to the Principal's Representative for review.

(h) The Professional Services Contractor must comply with section 4.5.4 Control of Records of "AS/NZS ISO 14001:2015" and retain all environmental records for a period of no less than 5 years from Completion.

(i) The Professional Services Contractor must provide the Principal with copies of the environmental records stated in Part 3 of Annexure E (unless otherwise stated in Annexure A). Any records not required to be stored on-site must be forwarded to the Principal's Representative within 3 Business Days of a request.

3.3. Sustainability and Climate

Unless otherwise stated in Annexure A, The Professional Services Contractor must comply with the Principal's sustainability and climate requirements and the requirements of GREP described in Annexure G.

4. Safety Management

4.1. General Requirements

(a) The Professional Services Contractor must advise the Principal's Representative at all times, the name of the senior management representative responsible for implementing the safety requirements of this Agreement and monitoring the effectiveness of the Professional Services Contractor's safety management system in complying with all safety requirements.

(b) The Professional Services Contractor must manage safety risks in accordance with "AS/NZS ISO 31000:2009 – Risk", and must eliminate all risks to health and safety; or where not possible, minimise those risks so far as is reasonably practicable applying, maintaining and reviewing the prescribed Hierarchy of Control Measures.

(c) The Professional Services Contractor must implement the Principal's Pegasus/Onsite Track Easy access card systems unless otherwise specified in Annexure A. The Professional Services Contractor must ensure that all workers are provided with an access card and log in and out each shift.

(d) The Professional Services Contractor must effectively manage, through the Pegasus system, fatigue, emergency response, alcohol and other drugs use, training, induction and competency records. The Professional Services Contractor must ensure adequate numbers of sign on location points (whereby workers can easily log on and off each shift) exist. Each location point is to be provisioned with an Alcolizer/Breathalyser which is to be incorporated into the sign-on unit and used as part of the daily sign-on for all workers and visitors accessing site.

(e) As part of the determination of whether risks have been eliminated or minimised so far as is reasonably practicable, the Professional Services Contractor must review, and record the review of "TfNSW Generic Work Health and Safety Operational Risk Register 30-SD-101" and where the Professional Services Contractor's on-site Services involve Rail Safety Work, the Professional Services Contractor must also review "TfNSW Generic Rail Safety Risk Register 30-SD-038".

(f) All SWMS must be approved and signed off by the Principal Contractor prior to being submitted to the Principal's Representative for review. The Professional Services Contractor acknowledges and agrees that by exercising its right under this clause 4.1 (d) the Principal's Representative is not assuming any management or Control of the Site or the Contactor's on-site activities and is only receiving the SWMS information to monitor the Professional Services Contractor's compliance with its obligations under this Agreement and/or applicable Laws.

4.2. Safety Control Measures

(a) The Professional Services Contractor must 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 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.

(b) Where mobile plant's operating envelope is capable of encroaching within 3 metres of the Rail Network 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".

(c) The Professional Service Contractor must ensure that records for inspection, maintenance and repair of each item of plant on site are kept and maintained up to date.

(d) The Professional Service Contractor must ensure that no modifications have been made to any item of plant without approval and acceptance from the operating equipment manufacturer for the relevant item of plant.

(e) Prior to any penetration or excavation works being undertaken, the Professional Service Contractor must develop a Utilities Management Plan to manage these works. As part of the management of utilities the Professional Services Contractor must positively identify all utilities within and adjacent to, the Site and update all relevant drawings/maps to include the known locations of such utilities. The Utilities Management Plan must demonstrate how the Professional Services Contractor will manage all its activities around all overhead and underground service utilities.

(f) The Contractor's Activities must be in compliance with the relevant WHS legislation and TfNSW Working near Utilities 4TP-PR-159 and at a minimum must demonstrate how the Professional Services Contractor will manage:

i. positive and effective isolation of energy sources;

ii. potholing to positively identify underground services;

iii. non-destructive digging methods and service locations (e.g. Ground Penetrating Radar);

iv. Dial Before You Dig and DSS service searches;

v. the potential for unidentified underground services; and

vi. penetration/excavation permit process including the use of hold points to ensure controlled approval management of the process.

(g) Live electrical work is not permitted to be carried out on the Site and isolated circuits must be treated as live until they have been proven otherwise dead by testing. The only exception to the above is for the purpose of testing, as specified in the SafeWork Australia Code of Practice "Managing Electrical Risks in the Workplace" .

(h) The use of portable earphone equipped music players on Site is prohibited.

(i) Fires or burning off are not permitted anywhere on Site.

(j) The Professional Services Contractor must provide a defibrillator (and suitable training in its use for its senior first aid personnel) at each major first aid location, and must ensure persons trained in the use of the defibrillator are on Site at all times.

(k) In Vehicle Monitoring Systems (IVMS) are to be fitted in all Heavy Vehicles used on Site. General exemptions to the above would be for non-project delivery drivers, and suppliers providing one off deliveries.

(l) All breaches in relation to clause 4.2 (k) must be managed in accordance with clause 2.8 of this TSR. Incidents involving speeding, fatigue and log book breaches must be monitored, reported and acted upon by the Contractor.

(m) Management of Fatigue must be in accordance with the requirements set out in TfNSW Fatigue Management Standard.

4.3. Alcohol and Other Drugs

(a) The Principal's policy of zero tolerance of alcohol and illegal drug use applies to this Agreement and all the Services. Alcohol and illegal drugs are not permitted on any Site or on premises controlled or managed by the Principal. The Professional Service Contractor must develop policies and procedures to ensure this policy of zero tolerance of alcohol and illegal drugs use is adhered to at all times.

(b) The Professional Service Contractor must develop and implement effective alcohol and drug testing procedures inclusive of the number of tests to be performed annually and the periods throughout the year that testing will take place. All Alcohol and Other Drug testing procedures must be in line with relevant Laws and Australian Standards.

(c) The Professional Service Contractor must ensure that all persons associated with the Services (including the Professional Service Contractor's personnel, visitors, Subcontractor workers and agents) are aware of their obligations to comply with all alcohol and other drug requirements.

(d) Any persons under the influence of alcohol or drugs are prohibited from working on any projects carried out for, controlled or managed by the Principal, regardless of their work location. Prescription and over-the-counter drugs may also affect a person's ability to work safely and the Professional Service Contractor, in consultation with the Principal's Representative, will determine its policy in relation to prescription and over-the-counter drugs on a case by case basis.

(e) All of the Professional Service Contractor's personnel and workers of Subcontractors may be subject to alcohol and drug testing by an authorised testing officer or agent of the Principal at any time whilst carrying out the Services (including within the Professional Service Contractor's Site amenities or facilities).

(f) Testing for the presence of alcohol and other drugs may be undertaken at any time that workers are present on Site, including:

i. before performing duties (pre-sign on, primarily alcohol test);
ii. during the performance of duties (random and reasonable cause); and
iii. following any Incident.

(g) The Professional Service Contractor must immediately remove anyone from Site that tests positive to alcohol or drug tests or who refuses an alcohol or drug test, and the Principal's Representative notified immediately.

(h) The Professional Service Contractor must take disciplinary action against a person who breaches the Principal's policy of zero tolerance of alcohol and illegal drug use. The nature of the disciplinary action to be taken must be communicated to the Principal's Representative.

(i) Each individual that signs on at the commencement of each shift declares themselves to be free of alcohol and drugs.

(j) In addition to the requirements set out in this clause 4.3, if the Professional Service Contractor's activities are in or adjacent to the Rail Corridor and the rail environment, the applicable alcohol and other drugs procedures must comply with the Rail Safety National Law and the testing regime must include prestart testing prior to Track Possessions.

5. Communications, Stakeholder and Community Liaison

The following requirements apply to the extent specified in Annexure A.

5.1. General Requirements

The Professional Services Contractor must:

(a) appoint suitably qualified and experienced personnel to fulfil the communications requirements of the Agreement and must consult the Principal's Representative prior to taking any action that may impact on stakeholders and the community;

(b) proactively identify positive media and/or community relations opportunities, informing the Principal of these opportunities in a timely manner; and

(c) comply with all reasonable suggestions and requests of the community.

5.2. Meetings with Community and Stakeholders

(a) The Professional Services Contractor must not meet the community or stakeholders without seeking prior approval from the Principal, providing the Principal with a minimum of 3 Business Days' notice in each case.

(b) The Professional Services Contractor must ensure that suitable persons, adequately informed and qualified to participate and take the lead during meetings where requested by the Principal's Representative are available to attend meetings at all times, including "after-hours". The Professional Services Contractor must also provide relevant materials for presentation and distribution at such meetings.

5.3. Communications Management Control Group (CMCG)

(a) The Professional Services Contractor must provide administration and attend all CMCG meetings, established by the Principal. The CMCG may comprise representatives from Other Contractors, the Professional Services Contractor, the Principal and others invited by the Principal.

(b) At each CMCG meeting the Professional Services Contractor must provide the following information:

i. a summary of current and upcoming Professional Services Contractor's Services, likely impacts, and proposed communication strategies;

ii. an update on any current or emerging issues and/or opportunities;

iii. an update on complaints received and action taken to resolve them; and

iv. other information as requested by the Principal.

5.4. Communication Materials and Notifications

(a) All written, verbal or photographic/illustration information to be seen and made available to others i.e. Communication Materials must be submitted for approval to the Principal's Representative, who will require a minimum of 5 Business Days to review and approve or reject any submission. All written Communication Materials produced by the Professional Services Contractor must comply with the "TfNSW WCAG 2.0 Quick reference guide" and "TfNSW Editorial Style Guidelines".

(b) The Professional Services Contractor must issue written notifications to stakeholders and the community at least 5 Business Days before commencing any Services with the potential to impact stakeholders and the community. The notification must use the template provided by the Principal and must include the distribution details shown on a map.

(c) During Emergency Works, the Professional Services Contractor must provide written and verbal notification to properties immediately adjacent to or impacted by the Services at least two hours before commencing any activities. In such circumstances notifications do not have to be provided to the Principal's Representative for prior review/approval on the basis that subsequently, a copy of the distributed notification is provided to the Principal in electronic format.

5.5. Communications Management System (CMS)

(a) The Professional Services Contractor must complete formal familiarity training using the Principal's web-based CMS for collecting and recording details of all community and stakeholder contact.

(b) The Professional Services Contractor must record all contact with the community, media, government representatives, project related articles (paper and web based) and online discussions (blogging) on CMS and must update and maintain CMS with accurate details within 24 hours of the contact to ensure easy identification and rapid distribution of information when required.

(c) Entries into the CMS must provide an accurate, succinct summary of the contact and include contact details, actions required and must be updated by the Professional Services Contractor as soon as actions are closed out.

(d) The Professional Services Contractor must provide the Principal with information within the requested timeframes, to respond to media and government enquiries.

5.6. Complaints and Enquiries

(a) The Professional Services Contractor is responsible for responding to complaints and enquiries received regarding the Services and impacts associated with the Services, complaints and enquiries may be received through a variety of avenues including the Principal's 24-hour response line or project info line, in writing (letter or email), direct to the Principal via telephone, or direct to the Professional Services Contractor or its Subcontractors.

(b) When responding to complaints the Professional Services Contractor must:

i. record details of every complaint received and how it was managed and closed out;

ii. immediately investigate and determine the source of the complaint including an immediate return call to the complainant (where received by telephone). Where the complaint does not relate to the Services, the Professional Services Contractor must immediately notify the Principal's Representative;

iii. provide an oral response to the complainant regarding what action is proposed, immediately, within a maximum of 2 hours from the time of the complaint. If no return phone number was provided, the complaint must be responded to within a maximum of 24 hours for emails and 5 Business Days for letters from time of receipt;

iv. provide a detailed written response to the complainant within 7 calendar days, outlining the issue and the remedial action taken. Such written responses must be provided to the Principal for review and approval/rejection within 3 Business Days of receipt of the complaint; and

v. forward a scanned signed copy of the approved written response to the Principal on the day it is sent.

5.7. Site

(a) The Professional Services Contractor must submit a written request to the Principal's Representative providing at least 48 hours' notice, for any requests by the community and stakeholders to access Site. The Professional Services Contractor must not provide access unless the Principal has granted their prior approval.

(b) The Professional Services Contractor must accommodate all visits to the Site by the Principal's authorised representatives. The Professional Services Contractor acknowledges that any photographs, film or video taken by either the Professional Services Contractor or the Principal is the property of the Principal, who may use them for any purpose it chooses, and without the Professional Services Contractor's approval,

(c) The Principal may provide the Professional Services Contractor with signage and/or graphics which must be installed by the Contractor as directed by the Principal's Representative.

(d) The Professional Services Contractor must install way finding signage to direct pedestrians, commuters and vehicles that identifies changes to traffic and access at least 7 calendar days before:

i. making changes to pedestrian routes;

ii. impacting on cycle ways;

iii. changing traffic conditions; and

iv. disrupting access to public transport modes.

(e) All temporary works, on-site works and items erected as a part of the Services must be constantly maintained free of graffiti and advertising not otherwise authorised by the Principal, until Completion.

(f) The Professional Services Contractor must carry out daily inspections, and remove or cover any graffiti and unauthorised advertising as detailed:

i. offensive graffiti and unauthorised advertising material must be removed or covered within 24 hours;

ii. highly visible yet non-offensive graffiti must be cleaned or covered within 1 week; and

iii. graffiti that is neither offensive nor highly visible must be cleaned or covered during normal operations within one month.

6. Property

The following requirements apply to the extent specified in Annexure A.

6.1. General

(a) The Professional Services Contractor must appoint a site-based person to be the Professional Services Contractor's property representative. This representative must be present during all inspections undertaken by the Principal's Representative or delegate.

(b) Any findings by the Principal's Representative from inspections must be actioned within the timeframes reasonably required by the Principals Representative. The

Professional Services Contractor must provide written notification to the Principal that the findings of the Principals Representative have been closed out within the timeframes specified.

(c) The Professional Services Contractor must provide the property records described in Part 2 of Annexure E.

6.2. Pre Commencement Property Risk Assessment

(a) Prior to the commencement of any Site based activity, the Professional Services Contractor must undertake a comprehensive property risk assessment in consultation with the Principal's Representative. A staged risk assessment may be utilised, upon agreement with the Principal's Representative.

(b) This risk assessment must identify the potential property impacts of the Professional Services Contractor's Services on property, and the control measures that are required to be implemented in order to provide property protection in accordance with the requirements of the Agreement.

(c) With respect to the Site (and where the Site is at more than one location, for each part of the Site), this risk assessment must include:

i. permanent and temporary worksite access requirements and timing;

ii. access to or across adjoining properties and timing;

iii. crane slew radius, air rights and impacts on neighbouring properties or the Rail Corridor;

iv. any future subdivision, easements, other title interests or divestment requirements;

v. any future commercial impacts of resultant works; and

vi. Site investigation and contamination.

6.3. Access

6.3.1. Ownership and Rights of Access

(a) The Professional Services Contractor must ensure it has the necessary legal rights to access the appropriate property prior to commencing the Services. To assist the Professional Services Contractor, the Principal has developed a non-exhaustive list of applicable legislation, described in "TfNSW Property Compliance Register 2TP-ST-175".

(b) Prior to commencing the Services, the Professional Services Contractor must conduct property ownership searches (if lands are not supplied by the Principal).

6.3.2. Neighbouring Property

(a) The Professional Services Contractor must be responsible for managing the Site and minimising the impact of the Services on adjoining owners until Completion.

(b) At least 2 weeks prior to commencement of the Services and activity on Site, the Professional Services Contractor must identify all neighbouring land owners, tenants, businesses, occupants, who may be impacted by the Services and provide the Principal's Representative with a consolidated list that includes:

i. addresses;

ii. land use (retail, residential, garage, etc.);

iii. primary contact name, phone number and email address;

iv. likely impact that the Services will have on neighbouring property; and

v. any past correspondence.

(c) Where access to neighbouring property is required, the Professional Services Contractor must have the necessary legal rights and must comply with the *Access to Neighbouring Land Act 2000* (NSW) and this Agreement. In such cases, the Professional Services Contractor must prepare an application for access and submit it to the Principal's Representative for review and acceptance, prior to submitting the application to the local court.

6.4. Surveys

6.4.1. Pre-Commencement Land Surveys

The Professional Services Contractor must verify survey control for the Services, and must:

(a) prior to commencing any activity which could affect existing infrastructure (including roads, railways, utility services and buildings), undertake above ground and underground property boundary survey, recording the location of the relevant Site boundaries in relation to existing infrastructure on every land parcel and provide them to the Principal's Representative;

(b) avoid, where reasonably possible, disturbance of existing survey marks and must re-establish any such marks disturbed or affected by the Services; and

(c) all boundary and engineering surveys carried out must be in accordance with the *Surveying and Spatial Information Act 2002 (NSW) and the Surveying and Spatial Information Regulation 2012 (NSW).*

6.4.2. Post Commencement Land Surveys

(a) The Professional Services Contractor must verify survey control for the Services, and must comply with the requirements of the Agreement in relation to land surveys.

(b) If any part of the Services is proposed to be, or have been built outside the relevant boundaries of the Site stipulated in Annexure A, and no formal agreement has been reached with the adjoining property owner, the Professional Services Contractor must cease work in this area and immediately notify the Principal.

6.5. Property Damage

(a) In carrying out the condition surveys, the Professional Services Contractor must minimise disruption to property owners and occupiers.

(b) The Principal's Representative may direct the Professional Services Contractor to include additional conditions surveys if it considers they have the potential to be damaged as part of the Contractor's Activities and a person, nominated in by the Principal, may attend the undertaking of condition surveys.

(c) In addition to the requirements set out in the Agreement and the TSR, the Professional Services Contractor must comply with all the requirements for condition surveys and ongoing monitoring set out in any agreements made with a Third Party.

6.6. Pre and Post Commencement Condition Surveys

6.6.1. General

(a) At least 2 weeks prior to the commencement of the Services, the Professional Services Contractor must carry out pre-commencement condition surveys to record the existing condition of adjoining land and property, and assess the susceptibility of critical services, structures, infrastructure or buildings, to damage or unacceptable changes or alterations as a result of the Services.

(b) The Professional Services Contractor must then perform a post-activity condition survey on each property previously subject to a pre-commencement condition survey.

(c) Post-commencement condition survey reports must include a determination of the cause of any monitored change or any damage identified since pre-activity or other previous surveys and the Professional Services' proposed remedial works or activities. If damage is found to have been caused by the Professional Services Contractor's Services, the Professional Services Contractor must:

i. provide the Principal with a proposal setting-out the remedial action required;

ii. obtain the property owner's acceptance, in a form agreed to by the Principal, of the compensation, repair or reinstatement work, and release from future claims and actions; and

iii. If no damage is found to have been caused by the Professional Services Contractor's Services, the Professional Services Contractor must write to the property owner and Principal's Representative providing them both a copy of both reports.

6.6.2. Condition Survey Requirements

(a) Where the Services include Site based activities, the Professional Services Contractor must engage an independent third party to ensure compliance against the minimum standard of condition surveys.

(b) The Professional Services Contractor must ensure that the same surveyor performs the post-commencement survey that carried out the pre-commencement condition survey, in each case.

(c) The Professional Services Contractor must submit all condition survey reports to the Principal's Representative for review.

(d) Each survey must include a report which must contain a certificate from the surveyor who performed the survey certifying that the survey has been completed and is an accurate assessment of the condition of the property or asset.

(e) The Professional Services Contractor must ensure that the processes and procedures for performing all condition surveys are based on industry best practices. Examples of acceptable standards for condition surveys of buildings include:

i. sections 4 and 5 of the "Royal Institute of Chartered Surveyors (RICS) Guidance Note 63/2010 Building surveys and technical due diligence"; and

ii. "AS 4349 Inspection of Buildings – General Requirements", and with specific regard to the heritage elements within the Site.

(f) The Professional Services Contractor's reports on condition surveys of buildings must as a minimum record the following features:

i. major features of the buildings and developments including location, type, commencement, age and present condition, including any defects or damage;

ii. type of foundations including columns, walls and retaining structures;

iii. an assessment of the susceptibility of the building to further movement or stress;

iv. an assessment of the effectiveness of water-proofing systems in basements to the anticipated movements caused by the Professional Services Contractor's Services; and

v. an assessment of the susceptibility of the building to changes in water levels resulting from the Professional Services Contractor's Services.

6.6.3. Ongoing Property Monitoring

(a) The Professional Services Contractor must implement a monitoring and inspection regime for properties with the potential to be detrimentally or negatively affected by the Services.

(b) The monitoring and inspection regime must address the requirements of the Agreement, the Planning Approvals and third party agreements and agreements made with any Authority.

6.7. Pre-Commencement Property Compliance Checklist

Prior to commencement of the Services or Site occupation, the Professional Services Contractor must submit the Property Compliance Checklist in Part 1 of Annexure E to the Principal's Representative for review and approval, to demonstrate that all property obligations have been met.

Annexure A Additional Project Requirements

TfNSW Standard Requirements (PSC) ANNEXURE A

5TP-FT-351/2.0

Template – Applicable to Infrastructure and Services

Divisional Management System

Status:	Approved
Version:	2.0
Branch:	Program Management Office
Section:	Commercial
Business unit:	Procurement
Date of issue:	13 February 2018
Review date:	13 February 2019
Audience:	☒ Heavy Rail; ☐ Light Rail; ☒ Multi Sites; ☒ Systems; ☒ Fleets
Asset classes:	☒ Heavy Rail; ☐ Light Rail; ☒ Multi Sites; ☒ Systems; ☒ Fleets
Project delivery model:	IP Program Development and Delivery
Project type:	For all project types
Project lifecycle:	☒ Feasibility; ☒ Scoping; ☒ Definition; ☐ Construction readiness; ☐ Implementation; ☐ Finalisation; ☐ Not applicable
Process owner:	Director Commercial

Document History

Version	Date of approval	Doc. control no.	Summary of change
1.0	18 February 2016	4787908_1	Created to be used with consolidated TSR (PSC)
2.0	13 February 2018	4787908_6	Created and amended post review to be used with updated TSR (PSC)

This document has been drafted to be used as an annexure to version 3.0 of TfNSW Standard Requirements (PSC) 5TP- FT-410, only and should not be used with other versions.

TfNSW authored documents referenced within this document can be found on TfNSW's website:http://www.transport.nsw.gov.au/projects under the "Working with us" and "Environmental Services" Menu Tabs.

Additional Project Requirements

A1 Definition of "Site"

Clause	Site Means
Annexure B Definitions	(a) the lands and other places described as defined in the Services Brief; and (b) any other lands and places made available to the Professional Services Contractor by the Principal for the purpose of this Agreement.

A2 Contract Management Plan clause 2.2

Requirement	Is one Required?	Initial Submission Timing	Frequency of Update
Contract Management Plan (see also A14 for its sections and sub plans)	Yes	T2	12 months

Legend

T1 15 Business Days after the date of this Agreement
T2 30 Business Days after the date of this Agreement
T3 10 Business Days prior to the commencement of investigations.
T4 15 Business Days prior to the commencement of design.
T5 Concurrent with the first PDR (or equivalent) design package submission.
T6 Concurrent with the first CDR (or equivalent) design package submission.
T7 30 Business Days prior to the commencement of Site mobilisation.
T8 10 Business Days prior to the commencement of Site mobilisation

A3 Professional Services Contractor's Program clause 2.3 & Annexure D

Clause	Item	Requirement	Add Insertion
2.3	Professional Services Contractor's Program	The professional Services Contractor must provide a program	Yes
		The program must be in P6 and must comply with Annexure D (if no, any amendments from Annexure D should be done using A17)	Yes
		Date first program is required	With Proposal Submission
		Monthly updates required?	Yes
		Update submission timeframe	Monthly
		Required status date for program update	Yes

Clause	Item	Requirement	Add Insertion
		Required to develop, status and maintain the program within the Principal's planning environment	Yes

A4 Principal's Document Management Tool clause 2.4

Clause	Requirement
2.4	Yes, the Principal will administer the document deliverables using the Principal's electronic document management tool.
	The nominated electronic document management tool is Teambinder.

A5 Monthly Reporting clause 2.5

Clause	Requirement
2.5	A report is due monthly

A6 Principal Provided Training clause 2.7

N/A

A7 Compliance Monitoring System clause 3.1(b)

Requirement	Applies?
Use Transport for NSW compliance tracking system (INX) to undertake self-regulation to confirm that all the Services are compliant with all Authority approvals (including the EPL).	Yes
Implement a compliance reporting structure (INX) in addition to any other reporting requirements for the Agreement [and follow the applicable parts of "Guide to Environmental Incident and Non-compliance Reporting using the INX System 9TP-SD-005"	Yes

A8 Consistency Checklist clause 3.1 (d)

Requirement	Applies?
Consistency checklists and Environmental Reviews, in the format provided by the Principal, unless otherwise agreed, are to be completed by the Professional Services Contractor and provided to the Principal's Representative for review in circumstances where Services are likely to deviate from the approved project. Where inconsistency with the approved project exists or is likely to exist, the Professional Services Contractor may request the Principal seek a project modification. Under such circumstances, it is the Professional Services Contractor's responsibility to provide the necessary reports, studies and final submission to the Principal's Representative to justify the modification. Any modification must detail property, environmental, community and all other related impacts.	Yes

A9 Professional Services Contractor's Environmental Management System clause 3.2 (c)

Requirement	Applies?
(i) Is an Environmental Management System accredited under ISO 14001:2004 required?	Yes
(ii) If No in (i) above, is an Environmental Management System required.	Yes

A10 Environmental Control Maps clause 3.2 (e)

Requirement	Applies?
The Professional Services Contractor must develop, implement and maintain Environmental Control Maps (ECMs).	Yes

A11 Safety Management clause 4.1 (c)

Requirement	Applies?
Professional Services Contractor must implement the Principal's Pegasus/Onsite Track Easy access card systems	No

A12 Communications, Stakeholder and Community Liaison clause 5

Clause	Requirement	Applies?
5	Is this clause (clause 5) delete in its entirety? Parts of clause 5 apply and should not be deleted in its entirety. See below	
5.1	General Requirements	No
5.2	Meetings with Community & Stakeholders	Yes
5.3	Communications Management Control Group requirements	No
5.4	Communications Materials and Notifications	Yes
5.5	Communications Management System	No
5.6	Complaints and Enquiries	No
5.7	Site	Yes

A13 Property Management clause 6

Clause	Requirement	Applies?
6.2	Pre-commencement property risk assessment to be carried out?	Yes
6.6	Pre and Post Commencement Condition Surveys required?	Yes
6.7	Pre commencement property compliance checklist	No

A14 Contract Management Plan Sections & Sub Plans Annexure C

Content	Must the CMP include this Content?
Design Management Section	**Yes**
Site Management Section	**Yes**
Commuter and Passenger Management Section	Yes
Traffic Management Section	Yes
Audit Management Section	Yes
Risk Management Section	Yes
Environmental Management Sub Plan	Yes
Communications Liaison Management Sub Plan	Yes
Property Management Sub Plan	Yes
Work Health and Safety Management Plan	Yes
Workplace Relations Management Plan	Yes
List any additional Sections required	No
List any additional Sub Plans required	No

A15 Records – Annexure E

Required Record or Reference	Applies?
The Professional Services Contractor must provide the records listed in Part 1 – Pre-Commencement Property compliance checklist	Yes
The Professional Services Contractor must provide the records listed in Part 2 – Property Records	Yes
The Professional Services Contractor must provide the records listed in Part 3 – Environmental Records	Yes

A16 Working In or Adjacent to the Rail Corridor – Annexure F

Requirement	Applies?
Does Annexure F apply?	Yes

A17 Sustainability Requirements - Annexure G

Clause	Requirement	Applies ?
1.0 (a)	Comply with the "TfNSW NSW Sustainable Design Guidelines" to meet a minimum design rating of Gold design rating.	Yes
1.0 (b)	The Professional Services Contractor must submit a completed checklist every milestone.	Yes
1.0 (c)	The Professional Services Contractor must prepare and submit the CERT at each of the following stages: o Feasibility design stage; o Definition design stage; and o Concept design stage.	Yes
1.0 (d)	The Professional Services Contractor must prepare and submit a Climate Risk Assessment (CRA) Report.	Yes
1.0 (e)	The Professional Services Contractor must register the project with the Infrastructure Sustainability Council of Australia.	Yes
	The Services must meet as a minimum Excellent rating for 'design'	Yes
1.0 (f)	The Professional Services Contractor must demonstrate, by inclusion in the Contract Management Plan or other relevant Management Plan, their: 1. Corporate or project-specific equal employment opportunity Policy or Guideline and how its requirements will be implemented; and 2. A learning and development program that is specific to the project.	No
1.0 (g)	Sustainability reporting including assessment of sustainability initiatives and sustainability strategy report including: a) Sustainability tool ratings b) Sustainability in design c) Sustainability in construction d) Whole of life costing e) Workforce employment requirements	Yes

	f) Sustainable procurement requirements g) Innovation or positive legacy opportunities h) Reporting and data collection requirements i) Handover requirements at completion j) Integration/overlap with other contractors Details provided for processes or systems utilised by the Contractor to manage sustainability outcomes (ie, energy, procurement, waste, biodiversity, heritage, urban design, community and stakeholders).	
1.0 (h)	Identify sustainability initiatives to be applied to the project's design, construction and operations	Yes
1.0 (i)	Demonstrate the inherent sustainability benefits associated with proceeding with the project	Yes
2.0 (a)	The Professional Services Contractor must make available documents and evidence to assure the Principal that the Services are compliant with the requirements of the GREP policy.	Yes
2.0 (b)	The Professional Services Contractor must comply with GREP requirements E3, E4, W3, A2	Yes
2.0 (c)	The Professional Services Contractor must prepare reporting tools.	Yes

A18 Project Specific Amendments to Standard Requirements

Clause/Para/Line	Project Specific Requirement
5.4 (b)	TfNSW will issue written notifications to the community and stakeholders about works which have the potential to impact them including, but not limited to night works, noisy works, parking/traffic/pedestrian impacts, access restrictions, utility service impacts, access restrictions. The Professional Services Contractor is to inform the Principal and the TfNSW Community Engagement Representative of any works with the potential to impact the community or stakeholders minimum 21 days prior to the works commencing to allow sufficient time for TfNSW to prepare a notification/signage/letter and provide adequate notice to affected properties/businesses.
5.4 (c)	During Emergency Works, the Professional Services Contractor (in consultation with the TfNSW Community Engagement Representative) must provide written and verbal notification to properties immediately adjacent to or impacted by the Services at least two hours before commencing any activities.

5.5	The Professional Services Contractor is not required to use the Principal's Communications Management System
5.6	TfNSW's Community Engagement team will respond to all complaints and community complaints or enquiries. The Professional Services Contractor is required to provide information to the Principal's Representative in a timely manner to ensure the complaints and enquiries can be responded to within the required timeframes stipulated in 5.6.
New clause 6	The Contractor must not commit to marketing or promotional opportunities or develop marketing or promotional materials that relate to the project or the Contractor's Activities, without the prior written approval of the Principal in accordance with clause 7.1 above. This includes but is not limited to: i. signage; ii. media articles and releases; iii. advertisements; iv. presentations at conferences; v. photographs; vi. sponsorships; vii. website text and graphics; viii. social media and professional networking activities; ix. award entries x. events; xi. case studies; and xii. other corporate materials. These requirements also apply to the Contractor's consultants and subcontractors
New clause 7	**Information to the Principal** The Contractor is required to provide (and explain) accurate communications information to the Principal regarding current and upcoming Contractor's Activities (including works of Subcontractors) and all associated community impacts as follows and as required: (a) **Prior to Site establishment:** a program of the Contractor's Activities, scheduling, and details of the planned community impact minimisation measures; and (b) **Monthly:** the Works completed and upcoming Contractor's Activities, including any associated community impacts (in a format suitable for inclusion on the Principal's website). The Contractor must be contactable on a 24-hour basis (as required).
New clause 8	**Media and Government Relations** The Contractor must: (a) immediately make any enquiry/contact by the media or elected government representative known to the Principal; (b) not make any statement (verbal or written) or provide any photographs or illustrations on social media or to the media, or elected government representatives regarding the Contractor's Activities without the prior written approval of the Principal; (c) not permit any media or elected government representative on a worksite without the prior written approval of the Principal;

	(d) provide the Principal with relevant information in a timely manner, as required to respond to media and government enquiries; (e) ensure all Subcontractors comply with these requirements; and
New clause 9	**Incident Management and Reporting** The Contractor must immediately notify the Principal of any incident or issue associated with the Contractor's Activities that may have an impact on the community, environment, employees, Subcontractors or other stakeholders or may attract the attention of the media, the Minister for Transport, a local MP, council or the broader community. Where the incident or issue is in respect of a work, health and safety issue the Contractor must also comply with the notification provisions of TSR S. Where the incident is in respect of the environment the Contractor must also comply with the notification provisions of TSR E. In the event of an incident or issue, the Contractor must not contact or provide information to any person (other than that which is required to directly manage the incident or to comply with law), including any stakeholder, the media or the public, without the prior approval of the Principal. The Contractor must make available senior personnel to respond to the community, the media and other stakeholders when required by the Principal. The Contractor must provide the Principal with all necessary communications materials that may need to be disseminated as a result of such incidents, if required by the Principal. The details of response times for incident reporting by the Contractor are: (a) immediate verbal notification to the Principal's Representative, which is interpreted as: (i) within 10 minutes of the incident occurring, in the case of an incident that has attracted or will imminently attract the attention of the media, the Minister for Transport, a local MP, or the broader community. Examples of such incidents include without limitation: - any delays to train timetables caused by the incident; - incidents where employees of the Contractor or Subcontractor, or a member of the community are harmed; and - access to trains is blocked and preventing (or severely restricting) access to commuters, (ii) otherwise, within 1 hour of the incident occurring; (b) a report detailing the incident to be issued to the Principal's Representative within 24 hours of the incident occurring, using: (i) "TfNSW Safety and Environmental Incident Report - 90-FT-002" for any incident or issue in respect of WHS or for any environmental incident; or (ii) the Contractor's incident report form, in respect of all other incidents or issues; and (c) a corrective action report prepared by the Contractor in accordance with "AS/NZS ISO 9001 (2008)" and submitted to the Principal's Representative within 5 Business Days of the incident occurring.

Annexure B Definitions

The following definitions apply:

Asset Handover	Point in time at which the control of certain specified assets is transferred to an Operator/Maintainer and/or Asset Owner for their ongoing operation and maintenance.
Asset Owner	Organisation who will ultimately own the assets subject to the Asset Handover. In some cases this may also be the Operator/Maintainer.
Authority	includes any governmental or semi-governmental or local government authority, administrative or judicial body or tribunal, department, commission, public authority, agency, Minister, statutory corporation or instrumentality (and includes ASA) and any private electricity, telecommunications, gas or other utility company having statutory rights in relation to the Services or the.
CCB	Configuration Control Board, a group of persons with the responsibility and authority to make decisions on configuration changes relating to TfNSW assets
CDR	Critical Design Review or equivalent stage of the design as developed in accordance with the Contractor's systems engineering processes.
Codes and Standards	The codes and standards to which the Services must comply, including those nominated in the Agreement, TSR and Services Brief and for the avoidance of doubt including the ASA Requirements.
Commissioning	Systematic process of ensuring that all infrastructure, equipment and systems installed in a project perform interactively in accordance with the design intent and the Operator/Maintainer's functional and operational needs.
Communications Materials	All written, verbal or photographic/illustration information to be seen and made available to others such as: media responses, all forms of social media, press releases, marketing and promotional materials, Notifications, material placed on hoardings, shade cloth and fences and the like.
Control Gates	Meaning Configuration Management Gates as defined in the "TfNSW Configuration Management Plan T MU AM 04001 PL".
Configuration Materials	The Contract Material which is required in support of Asset Handover, describing the operation and maintenance requirements the assets delivered under this Agreement.
Contract Material	Means those documents (including, but not limited to, information stored by electronic means) and materials created or required to be created under this Agreement by the Professional Services Contractor.
Contract Management Plan (CMP)	The Management Plan to be developed by the Professional Services Contractor in accordance with the requirements of this TSR which acts as a framework for bringing together all the management requirements for the Services into a coordinated and integrated plan.

Cost Loaded Baseline Schedule	A baseline program or schedule where the Professional Services Contractor's costs are distributed across activities such that a cash flow S-Curve may be created, this will also be used as the basis for measuring Earned Value.
Danger Zone	Danger Zone as defined in the RailSafe Network Rules and Procedures.
Document	Refers to any document that is required to be submitted to the Principal or Principal's Representative.
Earned Value	Method of measuring and reporting project cost performance based on integrated time, cost and scope elements in accordance with "TfNSW Earned Value Management using Primavera P6 4TP-WI-005
Environmental Control Map (ECM)	A document prepared to assist in the planning and delivery of works, specific to a work area and/or activity that identifies the physical location of physical protection measures, work method controls and monitoring requirements to minimise the impact of activities on the environment and community.
Environmental Management System (EMS)	A tool for managing the impacts of an organisation's activities on the environment and provides a structured approach to planning and implementing environment protection measures.
Emergency Works	Unplanned work which must be undertaken immediately in order to avoid damage to property or injury to people.
Fruin Level of Service	A level of service Standard for pedestrian access created by John J Fruin PhD.
Global Possession Calendar and Standard Working Calendar	Default calendars in TfNSW's P6 database which can be made available on request.
GREP	NSW Government Resource Efficiency Policy
Heavy Vehicle	Under the Heavy Vehicle National Law (NSW) a heavy vehicle is a vehicle that has a Gross Vehicle Mass (GVM) or Aggregate Trailer Mass (ATM) of more than 4.5 tonnes and a combination that includes a vehicle with a GVM or ATM of more than 4.5 tonnes
Hierarchy of Control Measures	Hierarchy of Control Measures as defined in the "Work Health and Safety Regulations 2011 Part 3.1 Managing Risks to Health and Safety".
Hold Point	Verification point beyond which the relevant part of the Services may not proceed without the verification and subsequent written authorisation of the Principal's Representative or the relevant person nominated in the TSR.

Incident

(a) any work health and safety or environmental or security incident arising from the performance of (or failure to perform) the Services including:

(i) a fatality or injury to any person including any incident which must be reported to New South Wales WorkCover Authority;

(ii) loss of containment, escape of or migration of contamination off-site and into the environment;

(iii) any fire or dangerous event on the Site;

(iv) a security breach;

(v) any unauthorised removal of trees;

(vi) a non compliance with an Authority Approval; or

(vii) any public complaint; or

(b) any unplanned and/or undesired event which results in or has the potential to result in injury, ill-health, damage to or loss of property, interruption to operations or environmental impairment,

and includes:

(c) a near miss, breach of procedure, quality failure and/or injuries to contractors and members of the public; and

"occurrences" and "notifiable occurrences" under the WHS Legislation and Rail Safety National Law.

Inspection

Inspection includes auditing, surveillance, monitoring, testing, review, examination and measuring.

Issue

Any issue associated with the Services that may have an impact on the community or may attract the attention of the media, such as an event which impacts on the normal operation of transport services, a timetable delay or access blockage etc.

Law

Commonwealth, New South Wales or local government legislation, including ordinances, instruments, codes of practice, policy & statutory guidance (but excluding the Building Code of Australia, any other building codes or Standards Australia codes), requirements, regulations, by-laws and other subordinate legislation; principles of law or equity established by decisions of courts; and Authority Approvals (including any condition/requirement under them).

Local Possession Authority

The Local Possession Authority as defined in the RailSafe Network Rules and Procedures.

Management Plans

Any of the Management Plans or Sub plans to be developed by the Professional Services Contractor in accordance with the requirements of this TSR and Agreement which describe how the Professional Services Contractor will manage related matters and issues that arise during the term of the project.

NABERS	The National Australian Built Environment Rating System
National Counter Terrorism Alert Levels	Levels described in the Australian Government's National Terrorism Public Alert System and referenced on the Australian National Security website
Operator/Maintainer	Organisation that, post Asset Handover, will operate and maintain the assets. In some cases, this may also be the Asset Owner.
Operational Readiness	A process used to ensure that any on-site works are safely integrated into the Rail Network, with all necessary plans, documents, approvals, staff training and any other related activity completed, so as to ensure a safe and smooth transition into operation.
Other Contractor	Includes any contractor, consultant, artist, tradesperson or other person engaged by the Principal or others to do work, other than the Professional Services Contractor and its Subcontractors, and includes the Construction Contractor as defined in the Agreement.
PDR	Preliminary Design Review or equivalent stage of the design as developed in accordance with the Professional Services Contractor's systems engineering processes.
Planning Approval	Any Authority issued approval issued from time to time by either the Principal or the Minister for Planning and Infrastructure (acting in their capacity as determining authority) under the *Environmental Planning and Assessment Act 1979 (NSW)* in respect of the Services; and any mitigation measures and statement of commitments that are required to be complied with or fulfilled.
Planning and Environmental Compliance Monitoring System (PECOMS)	A Principal developed system which may be specified to monitor compliance with the conditions of all licences, permits and Approvals during the delivery of its projects.
Professional Services Contractor	The person named as the Professional Services Contractor in Schedule 1 of the Professional Services Contract.
Professional Services Contractor's Program	The program or schedule referred to in clause 2.2 of this TSR.
Project Rail Safeworking Coordinator	A person appointed by the Principal, accountable for monitoring the management of worksite protection and rail safety requirements for controlled and managed worksites on the programs/projects being delivered by TfNSW on behalf of the NSW State government.
Property Representative	The Property Representative appointed by the Principal
RailSafe Network Rules & Procedures	Australian Network Rules & Procedures as defined by the Rail Industry Safety Standards Boards
Rail Corridor	The area containing the Rail Track, rail junctions, level crossings, station buildings, platforms, signal boxes, tunnels, bridges and other associated structures. This area is often defined by railway boundary fencing and in the absence of such fencing, is defined by a physical boundary (i.e. tunnel, building or retaining walls) or everywhere within 15 metres of the outermost rails.
Rail Safety	Rail Safety as defined in the *Rail Safety National Law*.
Rail Safety National Law	The *Rail Safety National Law (NSW)*.

Rail Safety Work	Rail Safety Work as defined in the *Rail Safety National Law*.
Rail Safety Worker (RSW)	Rail Safety Worker as defined in the *Rail Safety National Law*.
Rail Track	The rails fastened on sleepers or transoms and founded on ballast or bridge decking or concrete slab, associated signalling and overhead wiring components (in electrified areas).
Rail Transport Operator	An entity defined by the *Rail Safety National Law* as a rail operator or rail transport operator.
Reference Documents	The list of documents which are referenced in this TSR.
RMS	Roads and Maritime Services, a corporation constituted by section 46(1) of the *Transport Administration Act 1988* (NSW). A reference in any of the TSR documents to the "Roads and Traffic Authority" or "RTA" is to be construed as a reference to Roads and Maritime Services.
SafeWork NSW	Work Health & Safety regulatory authority in NSW
Safe Work Method Statements (SWMS)	Documents so titled prepared in accordance with this TSR and that give specific instructions on how to safely perform a work related task, or operate a piece of plant or equipment etc.
SDR	System Definition Review or equivalent stage of the design as developed in accordance with the Professional Services Contractor's systems engineering processes.
Site	Has the meaning assigned in Annexure A of this TSR
Subcontractor	A subcontractor of the Professional Services Contractor, including a consultant or a supplier of goods or services (including professional services and plant hire) or both
Sub plan	A standalone Management Plan which is included in the overall Contract Management Plan.
Third Party	means a party to a Third Party other than the Principal.
Third Party Agreement	means an agreement with another party, which forms part of the Agreement
Track Possessions	A period during which the Professional Services Contractor has access to Rail Track for the purpose of carrying out the Services.
Vehicle Registration Database	The Principal's database recording a rail vehicle's ownership and technical details to indicate that the vehicle has met the Principal's acceptance requirements and is authorised to operate on rail infrastructure managed by the Principal.
Witness Point	Point identified in the TSR or Services Brief where the Principal's Representative, or the relevant person nominated in the TSR, may review, witness, inspect, or undertake tests on any component, method, or process of the Services.
Work Breakdown Structure (WBS)	Framework of discrete work elements (or tasks) used to organise and define the total project work scope, cost, and schedule control elements.
Worksite Protection	The safety measures adopted, in relation to rail operations, to protect persons brought or invited to any part of the Site located within the Rail Corridor.

Worksite Protection Personnel	The Protection Officer assigned to implement the required Worksite Protection for work within the Rail Corridor.
Worksite Protection Plan	The Protection Officer plan documenting the safety measures adopted, in relation to rail operations, to protect persons brought or invited to any part of the Site located within the Rail Corridor.

Annexure C Management Plans

1.0 General

The Contract Management Plan (CMP) is the project-specific overarching Management Plan that includes all other Management Plans as Sub plans that must be developed under the Agreement. The CMP must describe the complete management activities, systems and processes which the Professional Services Contractor will employ in its delivery of the Services.

The Services must be carried out in compliance with all Management Plans developed by the Contractor.

2.0 CMP Sections

Unless otherwise noted in Annexure A, the CMP must include the following sections.

2.1 Contract Management

The Contract Management section must:

(a) explain in a systematic, coordinated and integrated structure, the managerial structure for performing the Services;

(b) define responsibilities, resources and processes for planning and performing the Services and verifying that the Services meet the requirements of the Agreement;

(c) describe the key roles and responsibilities and provide an organisation chart covering the key roles and Subcontract interfaces;

(d) define the interface and associated responsibilities of the Professional Contractor, Subcontractors, Other Contractors and other relevant third parties as well as the Principal;

(e) where applicable, describe how the AEO authorisation covers the full scope of the Services including all subcontracts;

(f) describe how the Professional Services Contractor will comply with all relevant Laws, Codes and Standards and requirements, applicable to the Services;

(g) list all Documents required to be developed by the Professional Services Contractor, under this Agreement;

(h) list all Documents and Contract Materials required to be submitted to the Principal under this Agreement;

(i) List all approvals to be sought from the Principal and others;

(j) define the reporting mechanisms in the case of Incidents and protocols for communicating with Authorities; and

(k) identify the responsible person for developing and updating the CMP and its sections.

2.2 Design Management

The Design Management section applies to both the works and temporary works and must be based on the Professional Services Contractor's management systems and processes as assessed by the ASA as part of its AEO authorisation and must include the measures, including audit and verification that the Contractor will utilise to ensure that, as a minimum:

(a) all design tasks are appropriately resourced by competent personnel;

(b) all design personnel are aware of the requirements of the Agreement and any obligations of designers under the WHS Legislation;

(c) all designs are prepared in accordance with requirements of the Agreement;

(d) design packages are identified and a schedule is included which identifies each unique package, its scope, discipline and the stages of submission in accordance with any requirements of the Services Brief;

(e) the development of the design is effectively coordinated and the interrelationships identified and managed across all:

  i. design interfaces, including with existing systems, operational systems, and maintenance systems;

  ii. design stages;

  iii. design packages, where the design work has been portioned into design packages; and

  iv. design disciplines (e.g. electrical, civil, track, signalling and rolling stock);

(f) the process of CCB and CMAAC control gate submissions are detailed;

(g) the Professional Services Contractor demonstrates familiarity with the Site and its constraints and the existing infrastructure so the works are designed and configured so as to achieve optimal integration from a human, asset and systems perspective in their operations and maintenance;

(h) a system for the management of design review comments is incorporated;

(i) all stakeholders in relation to the design have been appropriately identified, that appropriate stakeholder consultation is undertaken and includes workshops and presentations of the design to relevant parties including the design and sustainability review panel;

(j) all design assumptions are documented and verified;

(k) all designs are checked, reviewed and verified by competent personnel and that verification or proof engineering is conducted;

(l) a requirements management process is adopted in accordance with "ASA Systems Engineering Standard T MU AM 06006 ST" and the related requirements of the Services Brief;

(m) all methodologies, sequencing, staging, temporary or enabling works are taken into account and the associated risks are managed in the design;

(n) an asset maintenance strategy and an asset operations strategy are delivered with the design;

(o) safety, sustainability, reliability, availability and maintainability are demonstrated in the design;

(p) durability assessment and durability statements are included with the design;

(q) all completed designs or completed portions of the design are accompanied by a design assurance certificate from the AEO;

(r) the process for managing design changes, and how this integrates with the configuration management activities in regards the CCB and CMAAC;

(s) all inspection and test criteria are developed for the delivery of the works for incorporation in the inspection and test documentation that will verify and validate the works and Services;

(t) all documentation is compliant with requirements of the Agreement, "TfNSW CAD Protocols - 4TP-RL-004" and discipline specific ASA Requirements;

(u) risk arising from all hazards identified in the preliminary hazard analysis and systems hazard analysis are designed out or carried over, in the project hazard log or project specific safety risk register; and

(v) all designs comply with relevant Codes and Standards and the ASA Requirements.

2.3 Site Management

The Site Management section must:

(a) detail how the Professional Services Contractor will comply with its obligations under the Agreement in relation to the control, establishment, security, use and rehabilitation of the Site including the arrangements to provide access to, within and through the Site for the Principal, Other Contractors and any other person nominated by the Principal; describe how security management will reflect the National Counter Terrorism Alert Levels and develop procedures to communicate and respond to changes in the National Counter Terrorism Alert Levels.

(b) document how notification of a terrorism Incident will be made to the Principal's Representative and Law enforcement authorities, and the roles and responsibilities of the Contractor's employees and Subcontractors in such an event.

(c) describe procedures for the preparation and implementation of Management Plans before the start of the related Services;

(d) describe procedures for the management of Subcontractors;

(e) describe procedures for the Professional Services Contractor's mobilisation and demobilisation to carry out the Services, including mobilisation and demobilisation of personnel, Construction Plant and equipment; and

(f) address the Site related management of interfaces with any Authority, stakeholders and Other Contractors.

2.4 Commuter and Passenger Management (C&PM)

The C&PM section must include:

(a) drawings showing, as a minimum, the layout of public areas, including facilities provided for operational staff and patrons and systems drawings at each stage of project;

(b) drawings showing the proposed arrangement of the passenger facilities clearly showing the position of hoardings and provisions for interchange to other transport services. Clearances and free area of platforms and the like should be clearly documented. Fruin Level of Service diagrams must accompany the drawings and they must indicate the proposed level of service for the proposed arrangement;

(c) drawings showing proposed arrangement of signage covering existing signage and new temporary signage. Details must include location, size and wording of temporary and permanent way finding signage and proposed modification to any existing signage;

(d) drawings showing proposed arrangement of passenger information panels including temporary relocations and modifications;

(e) a program clearly indicating when configuration will be changed and proposed period of change;

(f) identification of controlled Site access points;

(g) identification of delineation lines and material to be used for delineation;

(h) identification of access points from public modes of transport and general ingress and egress points; and

(i) identification and accommodation of level changes via ramps, stairs, and other means.

2.5 Traffic Management

The Traffic Management section must: (i) be consistent with and comply with the traffic configuration of the local road network as it exists at various stages during the Services in respect of items (a) to (f) below; and (ii) also describe the Professional Services Contractor's approach to satisfying the requirements (g) to (r) below:

(a) the management of traffic on the Site;

(b) WHS Legislation, the *Roads Act 1993 (NSW)* and all other Laws;

(c) Approvals from Authorities, including any from RMS, NSW Police, State Emergency or any local councils;

(d) the "RTA Traffic Control at Work Sites Manual";

(e) the need for Traffic Control Plans;

(f) "AS 1742.3-2009 Part 3 - Spoil Control Devices for Works on Roads"; and

(g) certificates, licences, consents, permits and approvals, including in respect of working hours;

(h) include traffic management procedures for the Site, including those required to manage: modifications to existing roads/paths and traffic patterns; changes to public transport routes and services; impacts on residents and/or commercial enterprises; and the impact of the Services on traffic within the Site and outside the Site on the adjacent public road system;

(i) include procedures to ensure the appropriate notification of relevant emergency services prior to implementing road and pedestrian traffic modifications such as street closures or changes to station access;

(j) address the safety of commuters, pedestrians, cyclists and contract personnel;

(k) consider changes to traffic usage patterns (average, low and peak flows as well as special events or traffic embargoes);

(l) include relevant detail from the Professional Services Contractor's Program including relevant commencement and Dates for Completion;

(m) describe the management of emergencies and Incidents in the context of access/egress;

(n) describe requirements in relation to occupation of, or access through, private properties;

(o) describe coordination of traffic management with the Principal, Other Contractors and other parties;

(p) include procedures for obtaining relevant certificates, licences, consents, permits and approvals;

(q) include specific Traffic Management Plans; and

(r) show expected number of vehicle movements each hour, based on the predicted maximum monthly material generation amounts and hours of operation of worksites.

2.6 Audit Management

The Audit Management section must outline the methodology, process and procedures adopted by the Professional Services Contractor to assure itself that the requirements of the Agreement are being met, including:

(a) preparation of risk based audit schedules for the Services and any Subcontractor's activities that also take account of previous audit outcomes;

(b) supply of competent and experienced resources to carry out audit management and implement the audit schedule;

(c) reporting, analysing and determining trends based on those audits;

(d) implementation of corrective and preventative actions as an outcome from those audits; and

(e) measures to assess the effectiveness of the corrective and preventative actions.

2.7 Risk Management

The Risk Management section must address the management of risks applicable to the undertaking of the Services:

(a) provide an outline of the framework and approach for developing, utilising, and maintaining a risk register capable of supporting effective risk management and reporting risk information;

(b) describe the management of risks applicable to the undertaking all of the Services;

(c) provide details of the Professional Services Contractor's approach to risk management in accordance with "ISO 31000 - Risk Management Guidelines and Principles", and its risk framework, processes and internal controls to manage;

(d) include processes and procedures for the systematic identification, assessment, treatment and management of hazards and risks;

(e) provide details on the timing and scope of The Professional Services Contractor's internal and external risk review processes, compliance, and audit related activities, including methods used to ensure that risk control measures and tasks are on schedule and effective;

(f) describe how the risks identified are integrated and managed with the other sections in the CMP and its sections and Sub plans;

(g) describe specific control measures, including safe work methods to be implemented to eliminate or mitigate risks;

(h) include methods to be used to monitor effectiveness of safe work methods and control measures;

(i) nominate the persons responsible for monitoring implementation of the control measures;

(j) include consultative processes employed by the Professional Services Contractor in relation to risk management and the persons involved;

(k) demonstrate the application of the Hierarchy of Control Measures undertaken to lessen the risks so far as is reasonably practicable; and

(l) Include and maintain a register of risks which includes:

i. a description of the risk/hazard and likely impacts;

ii. the risk level assessed for each hazard; and

iii. the residual risks/hazards;

3.0 CMP Sub plans

The CMP must include the following stand-alone Sub plans as nominated in Annexure A.

3.1 Environmental Management Plan (EMP)

The EMP must comply with the relevant requirements of the "NSW Government Environmental Management System Guidelines" and the Planning Approval and must include the following:

(a) details of the EMS to be applied;

(b) the environmental protection measures, and inspection and monitoring regime to be employed;

(c) the procedures to be implemented to verify that the Services relating to environmental management matters are compliant with the requirements of the Agreement, including all approvals from Authorities as well as details of the system to track Planning Approvals;

(d) procedures for the management of Incidents, non-conformances, non-compliances, Defects, Incidents, complaints and reporting, reflecting the fact that the Professional Services Contractor must not communicate (phone, mail, email etc.) directly with any Authority (unless permitted under Law) unless written consent is provided by the Principal and a communications protocol has been established;

(e) management of sustainability matters; and

(f) record keeping.

3.2 Community Liaison Management Plan (CLMP)

The CLMP must include the following:

(a) details of the community relations resources to be employed by the Professional Services Contractor;

(b) a comprehensive, project-specific analysis of issues and proposed strategies to manage these issues through the duration of the Services;

(c) details of the communication tools (traditional and digital) and activities that will be used to inform and engage the community and stakeholders;

(d) a comprehensive stakeholder list, highlighting issues/interests and strategies for dealing with each audience and mitigating potential issues/concerns;

(e) a program for the implementation of community liaison activities relating to key \tasks with strategies for minimising impacts and informing the community;

(f) details of key messages to be used in the Communications Materials;

(g) details of the community and stakeholder consultation, methodologies and timeframes required to meet the Planning Approval;

(h) policies and procedures for handling community complaints and enquiries, including the Professional Services Contractor's nominated 24 hour contact for management of complaints and enquiries;

(i) details of activities which will be undertaken to monitor and evaluate the effectiveness of the community liaison activities;

(j) analysis of other major projects/influences in the area with the potential to result in cumulative impacts to the community and strategies for managing these;

(k) details of procedures for obtaining approval from the Principal, where required in the Agreement, including this TSR;

(l) details of the approach to engaging with and involving local community/interest groups in the successful delivery of the project;

(m) a business management strategy which includes details of businesses that may be impacted by the Services, the potential impacts to business continuity, the engagement tools, forums and activities that will be used to keep them consulted and informed;

(n) The Professional Services Contractor must prepare a summary of the CLMP for uploading on to the Principal's website.

3.3 Property Management Plan (PMP)

The PMP must address the Professional Services Contractor's approach to the management of property and must describe:

(a) the property resources to be engaged in the project including subcontractors and consultants;

(b) processes for identification, mitigation and treatment of property related risk;

(c) definition of the Site including the use of any additional lands as well as access control and security measures;

(d) management of relations with all adjoining owners, stakeholders, Other Contractors, and the Principal;

(e) how the Professional Services Contractor will minimise disruption to property owners and procedures for the complaint resolution process;

(f) processes for management of property survey and site set out;

(g) processes for ensuring all design and activities carried out by the Professional Services Contractor are within the allowable boundaries;

(h) processes to avoid and monitor for unwanted damage to property on the Site and neighbouring properties;

(i) a list of the properties and assets which will be subject to a condition survey by the Professional Services Contractor;

(j) processes for managing condition surveys and identification of actual damage, how it occurred and how that damage will be rectified;

(k) processes for dispute management in relation to damage and how each dispute will be processed, managed and resolved including a property damage claim process flowchart;

(l) noise, vibration and settlement limits that will prevent the damage of existing property and items by the Services and the need to transfer these criteria into method statements and inspection and test plans to ensure that any Services are within the above limits and minimise damage risks; and

(m) Sample letters for permission to conduct a property condition survey, letter of introduction for property condition survey staff, and sample property condition reports.

3.4 Work Health and Safety Management Plan (WH&SMP)

The WH&SMP must:

(a) detail how the Professional Services Contractor will continuously promote a safer, healthier, more productive workplace, by establishing and maintaining an effective safety management system that facilitates the flow of information both within the Contractor's organisation and between the Professional Services Contractor's organisation, Subcontractors and the Principal;

(b) detail how the Professional Services Contractor will provide strong leadership and promote safety as a core value, establishing and enforcing high standards of performance and ensuring relevant expertise is available;

(c) detail how the Professional Services Contractor will ensure ongoing open and effective consultation and further, mutual trust with the Principal's Representative, providing timely response to safety issues and concerns within requested timeframes as advised by the Principal.

(d) describe the means of providing the Services in accordance with the safety management requirements stated in the Agreement, Law and this TSR;

(e) demonstrate compliance with the "NSW Government Work Health and Safety Management Systems and Auditing Guidelines";

(f) describe how the Professional Services Contractor will manage WHS risks in accordance with "AS/NZS ISO 31000:2009 - Risk Management";

(g) ensure that where the Services involve work in or adjacent to the Rail Corridor or the rail environment, provision for rail safeworking arrangements, based upon (without limitation) compliance with the Rail Safety National Law and RailSafe Network Rules and Safe Network Rules and Procedures are provided;

(h) contain within it, a requirements matrix to demonstrate compliance which will readily direct the Principal to the particular parts of the Professional Services Contractor's Management Plans where WHS requirements of this TSR are addressed;

(i) describe how the Professional Services Contactor's safety management system and safety culture supports:

i. the encouragement of teamwork and of worker involvement in promoting and maintaining a positive safety culture;

ii. a "One Team" approach to safety across all project participants including subcontractors;

iii. senior management's commitment to safety;

iv. a commitment to work with the Principal's Representative to develop project-specific lead and lag key performance indicators;

v. a shared care and concern for hazards;

vi. workers adapting to their changing environment where required;

vii. organisational learning through monitoring, analysis and feedback systems;

viii. methods for providing feedback and setting timeframes for such provision;

ix. methods to communicate and share learning from successes and failures;

x. methods to demonstrate how site-safety rules will be reflected in practice and how such rules will be incorporated into the Services; and

xi. methods to enable the ongoing development of safety improvements developed in consultation and communication with the Principal's Representative, as required.

3.5 Workplace Relations Management Plan (WRMP)

The WRMP must:

(a) be in accordance with the Implementation Guidelines to the New South Wales Code of Practice for Procurement: Building and Construction. http://www.industrialrelations.nsw.gov.au/About_NSW_IR/New_Guidelines_Construction_Work.page

(b) reflect any Industrial Relations Plan submitted with the Professional Services Contractor's tender submission.

3.6 Other Plans

The CMP must include as a Sub plan, any other Management Plan required under the Agreement.

Annexure D Professional Services Contractor's Program

1.0 General

(a) The Professional Services Contractor must:

i. submit the Professional Services Contractor's Program to the Principle's Representative in accordance with the Agreement, within 10 Business Days of the date of the Agreement, unless noted otherwise in Annexure A or the Agreement;

ii. update the Professional Services Contractor's Program on a monthly basis and submit to the Principal's Representative for review in accordance with the Agreement by the first Business Day of the month (with a Status Date of the last calendar day of the previous month), unless otherwise specified in Annexure A and at any other times required by the Agreement.

iii. comply with "TfNSW Scheduling Standard 4TP-ST-123" and provide the Professional Services Contractor's Program in the latest P6 version (XER format), as a single P6 project, not broken into multiple parts;

iv. develop, status and maintain the Professional Services Contractor's Program in Primavera P6 on the Principal's planning environment. The Professional Services Contractor will be given access to the Principal's planning environment via Citrix at no extra cost to the Professional Services Contractor;

v. ensure that each update to the Professional Services Contractor's Program is archived within the Principal's planning environment, and will be able to export the program file (no more than once per week) via a request to the Principal's Representative. The file will be emailed to the Professional Services Contractor; and

vi. not import any programs into the Principal's Primavera database. The Principal will import the Professional Services Contractor's Program into the Principal's P6 planning environment database, maintain the database security and control the access to the database, but will not make changes to the Professional Services Contractor's Program without the approval of the Professional Services Contractor.

(b) As a minimum, the Professional Services Contractor's Program must:

i. define approved Variation activities and/or additional working days in a separate WBS and cost breakdown structure item, so that cost and time of the Variation activities can be clearly distinguished from the original scope;

ii. have a separate WBS structure outlining each step of the design review process for each individual design package; where relevant;

iii. group the activities and milestones in a Work Breakdown Structure (WBS) that is aligned to the payment schedule or other form of cost breakdown structure included in the Agreement;

iv. show Earned Value in accordance with "AS 4817-2006 Project Performance Measurement using Earned Value" and "TfNSW Earned Value Management using Primavera P6 4TP-WI-005";

v. include budgeted cost, actual and actual cost input into the relevant WBS items each month; and

vi. show the Principal's review periods in accordance with the requirements set out in the Agreement.

2.0 Program Setup and Maintenance

(a) The Professional Services Contractor's Program must:

i. include all key activities and deliverables detailed in this TSR and the Agreement and any other activities and deliverables directed by the Principal's Representative;

ii. include requirements for the submission, review and approval of all Documents and other deliverables including the Management Plans and design documentation;

iii. include the required submission and approval timeframes and resources for community notification and consultation;

iv. outline the dates when the Professional Services Contractor will require information, documents, materials or instructions from the Principal and the dates when the Professional Services Contractor will provide information or Documents to the Principal. These dates must be consistent with dates that the Principal could reasonably have anticipated at the date of the Agreement;

v. provide start and finish dates for all elements of the Services (including design, procurement and investigation activities), milestones, Track Possessions, external dependencies, Principal deliverables, Operator/Maintainer deliverables and any other significant events and contractual Dates for Completion;

vi. show the lead times for the supply of information, selection of Subcontractors and suppliers, approvals, and the supply of equipment by the Principal, its agents or persons for whom the Professional Services Contractor is not responsible. Each period must be represented in a separate activity from the Professional Services Contractor's activity for the relevant items;

vii. clearly identify the access requirements and activities, including Track Possessions and any outages;

viii. show activities for Site mobilisation, establishment and demobilisation;

ix. clearly identify the critical path activities and milestones;

x. add and maintain codes, resources and expense activities as directed by the Principal's Representative;

xi. show quantities and rates as requested by the Principal's Representative;

xii. identify time leads and lags, resources and other constraints;

xiii. show calendars identifying the working and non-working days for the activities. Project calendars are to be up-to-date and reflect changes to the available working periods. The calendars must reflect the Global Possession Calendar and Standard Working Calendar which can be provided on request. No other allowances for wet weather or other such contingencies are to be made in the calendars;

xiv. reflect the time scheduled, remaining duration and actual physical progress of the Services, and be consistent with all constraints on access, performance and coordination; and

xv. show allowance for weather and other event contingencies in a single activity at the end of the critical path and prior to Completion.

3.0 Program Quality

(a) The Professional Services Contractor must maintain the quality of the Professional Services Contractor's Program and satisfy the criteria in the table 3.1 Program Quality Thresholds by remaining below the stated acceptable thresholds.

(b) Further assessment criteria and thresholds may be added or modified by the Principal's Representative. Deviations from the stated thresholds must be approved by the Principal's Representative prior to being accepted.

(c) The quality of the Professional Services Contractor's Program will be assessed upon each submission.

Table 3.1 Program Quality Thresholds

Criteria	Description	Remarks	Acceptable Threshold
Missing Predecessors	Total number of activities that are missing predecessors.	Activities that have missing predecessors are known as open-ended activities. Open ends cause time and risk analysis calculations to be erroneous. Ideally, all open ends should be fixed in a program during the planning phase.	Less than 1%
Missing Successors	Total number of normal activities that are missing successors.	Activities that have missing successors are known as open-ended activities. Open ends cause time and risk analysis calculations to be erroneous. Ideally, all open ends should be fixed in a program during the planning phase	Less than 1%
Merge Hotspot	The total number of activities with a high number of predecessor links.	Also known as merge bias, merge hotspot is an indication as to how complex the start of an activity is. If the number of links is greater than two, then there is a high probability that the activity in question will be delayed due to the cumulative effect of all links having to complete on time in order for the activity to start on time.	Less than 2.5%
Diverge Hotspot	The total number of activities with a high number of successor links.	A diverge hotspot is an indication as to how complex the end of an activity is. If the number of links is greater than two, then there is a high probability that the activity in question may delay a large number of successors.	Less than 2.5%
Critical	Number of critical activities	The number of critical tasks within a grouping. Typically critical activities have total finish float of zero. Primavera programs may have critical activities with more than zero float depending on the threshold set in Primavera P6.	No threshold
0 to 20 Days Float	Total number of activities with positive float of more than zero and less	Near critical activities should be closely monitored during execution to ensure a successful on-time project.	No threshold

Criteria	Description	Remarks	Acceptable Threshold
	than or equal to 20 days.		
Hard Constraints (Finish on, Start on, Mandatory Finish, Mandatory Start)	Number of activities with hard or two-way constraints.	Hard or two-way constraints such as Must start on or Must finish on should be avoided. Consider using soft constraints if absolutely necessary. Includes normal activities and milestones that are planned, in-progress, or complete.	Zero
Soft Constraints (Start On or After, Finish On or After)	Number of activities with soft or one-way constraints.	Soft or one-way constraints such as start no earlier than or finish no later than, constrain an activity in a single direction. While not as impactful as hard constraints, soft constraints do impact critical path method calculations in a program and should be reviewed carefully.	Zero
High Float	Excessive free total float	Number of activities with total float greater than 2 months. Activities must be agreed with the Principal's Representative	Less than 5%
Negative Float	Total number of activities with total finish float less than 0 working days.	Negative float is a result of an artificially accelerated or constrained program. Negative float indicates that a program is not possible, based on the current Completion dates. Compare this metric to constraint metrics to determine which activities (with negative float) are being impacted by constraints. Ideally, there should not be any negative float in the program. Includes normal activities and milestones that are planned or in-progress.	Zero
High Duration	Total number of activities that have a duration longer than 10 days. This number should not exceed 5%.	Total number of activities that have a duration longer than 10 days. Activities must be agreed with the Principal's Representative.	Less than 5%
Zero Duration	Normal activities having a Zero duration	Normal activities having a Zero duration	Zero
Wrong Status	Activities started or completed in the future	All activities with status in the future must be corrected in order to maintain an accurate execution plan. Includes only normal activities and milestones that are in progress or complete	Zero
SF Predecessors	Total number of activities with Start to Finish (SF) logic links.	Start-to-finish links are deliberately used very rarely because they have the unusual effect that the successor happens before the predecessor. Generally a poor practice when planning. Includes only normal activities and milestones that are planned,	Zero

Criteria	Description	Remarks	Acceptable Threshold
		in-progress, or complete.	
Leads and Lags	Lags in excess of 10 days	A lag is a duration applied to a logic link often used to represent non-working time between activities such as concrete curing. Lags tend to hide detail in programs and cannot be "statused" like normal activities. Lags should typically be replaced with activities. Includes normal activities and milestones that are planned, in-progress, or complete.	Zero
Logic on summaries		A summary is not a true activity. Logic should be tied to activities within the schedule	Zero
Reverse logic		As a result of a negative lag (a lead), the successor activity starts before their predecessor.	Zero

Annexure E Records

Records are required to be kept in accordance with Annexure A

Part 1 Pre Commencement Property Compliance Checklist

Compiled by: _____

On behalf of: _____

Contract #: _____

Date: _____

#	Issue	Circle relevant answer and add comment	Attachment
1	Has the Professional Services Contractor been liaising with the Principal's Representative?	Y N Comment: [insert text here]	
2	Have all properties affected by the project been identified?	Y N Comment: [insert text here]	
3	Has a list of all affected properties been issued to the Principal's Representative? (where lands have not been supplied already by the Principal	Y N Comment: [insert text here]	
4	Is access required to properties owned by other parties?	Y N provide details Comment: [insert text here]	
5	Are all agreements in place with other landowners to permit the Professional Services Contractor to undertake the Services?	Y N Comment: [insert text here]	
7	Have all surveys been conducted?	Y N Comment: [insert text here]	
8	Have all surveys been cross-checked with the designs?	Y N Comment: [insert text here]	
9	Do any of the proposed Services or fall outside the property / Site boundaries?	Y N Comment: [insert text here]	
10	If so, has the Professional Services Contractor got agreements to access the adjoining land?	Y N Comment: [insert text here]	
11	Are new easements, stratums, MOU's	Y N	

#	Issue	Circle relevant answer and add comment	Attachment
	or WAD's with stakeholders required for the project?	Comment: [insert text here]	
12	Have any new easement, stratums, MOU's or WAD's been drafted and issued to the Principal's Representative for review?	Y N Comment: [insert text here]	
13	Have all property Pre-commencement Condition Surveys been conducted and submitted?	Y N Comment: [insert text here]	
14	Has asset management been considered in design?	Y N Comment: [insert text here]	
15	Are there any other property risks?	Y N Comment: [insert text here]	

RECEIVED by TfNSW

Signed: _____

Received by: _____

Date: _____

REVIEWED by Principal's Representative

Signed: _____

Name: _____

Date: _____

Acceptable? (Conforms to Agreement requirements): Y/N provide reasons:

Comments provided: Y/N (attach comments)

No Comments or no further Comments: Y/N

Part 2 Property Records

Required Record or Reference
Index of all property records noting issues/versions and where they are held
Qualifications/skills and competency records of Professional Services Contractor's personnel (including subcontractors)
Induction and training records for Professional Services Contractor's personnel and subcontractors
Property control and constraints maps (worksite maps)
List of all adjoining property owners and details of all interaction / communications and complaints
Evidence of property inputs/outputs within the design development process including any sustainability initiatives
Surveillance, audit of subcontractors property performance and controls
Non-conformance and non-compliance property reports and register

Part 3 Environmental Records

Required Record or Reference
Copies of all completed forms, templates required under the Codes and Standards, and applicable guidelines.
Professional Services Contractor's non compliance, incident, near miss, non conformance reports and register
Preventive and corrective action reports and register
Environmental audit reports
Environmental Control Maps
Index of all environmental records (prior to Completion)
Induction and training records
Records/checklists of inspection and testing
Records of environmental management reviews for the project
Register of equipment, calibration frequency and certificates
Surveillance, audit of Subcontractors environmental performance and controls

Annexure F Working in and Adjacent to the Rail Corridor

The following requirements apply to the Professional Services Contractor, except where otherwise indicated in Annexure A.

1.0 The Operating Railway System

The Professional Services Contractor acknowledges and agrees that:

(a) it is aware that Sydney Trains or another Operator/Maintainer may continue to use areas adjacent to, or within the Site as part of normal operations of the railway system on a commercial basis during the undertaking of the Services;

(b) the continuance of normal operations of the railway system, including within the Site, adjoining areas and railway stations, on a commercial basis by Sydney Trains or another Operator/Maintainer during the performance of the Services must be maintained to the satisfaction of the Operator/Maintainer as notified by the Principal's Representative. The Professional Services Contractor must ensure that the railway system operations and infrastructure are not impeded or interfered with by reason of the performance of the Services, except where this is approved in writing beforehand by the Principal's Representative;

(c) it must maintain and coordinate sufficient access to the railway system, for users and operators, so as not to hinder main traffic routes, including access to and from operating railway station platforms, ticketing areas and the Rail Corridor, and the flow of traffic, including on or accessing the Site and the adjoining areas, except where this is approved in writing beforehand by the Principal's Representative;

(d) it must, in performing the Services, do everything that could be reasonably expected of the Professional Services Contractor to avoid Sydney Trains or another Operator/Maintainer breaching any obligation it may have arising out of or in connection with the continuing operation of the railway system on a commercial basis;

(e) The Professional Services Contractor must:

i. ensure access and egress for Sydney Trains or another Operator/Maintainer and its Contractors/Professional Services Contractors to the Site to undertake regular inspections and to complete maintenance and repairs of the Operator/Maintainer's infrastructure where required;

ii. ensure access and egress to those parts of the Site required by Other Contractors are made available and coordinated so as to minimise any interference with or disruption;

iii. ensure emergency egress routes (including routes to the Rail Corridor and its support system) are maintained at all times and that emergency systems (including the Sydney Trains emergency warning intercommunication system and fire alarm panels) remain operational throughout the duration of the Agreement;

iv. provide a safe place for persons carrying out Rail Track inspections and/or maintenance work, for example, refuges in any hoarding/fencing constructed adjacent to the Rail Track;

v. comply with any Sydney Trains or other Operator/Maintainer standards applicable to the Services including for work that is adjacent to an operating rail line and to live overhead wires;

vi. ensure that whilst undertaking the Services, no employees or Construction Plant (including, for example, by the slewing of cranes) of the Professional Services Contractor, Subcontractors or consultants enter an operating Rail Corridor, except as permitted by Sydney Trains "RailSafe Network Rules"; and

vii. at all times, and to the satisfaction of the Principal's Representative, carry out the Services in a manner that will ensure the safety of all property and persons, including the general public, travelling public, station lessees, railway traffic, railway system personnel, road traffic and any person associated or engaged in connection with the Services.

2.0 Track possessions

2.1 Arrangements For Track Possessions

(a) The Track Possessions available to the Professional Services Contractor are set out in the Agreement. For each Track Possession to be utilised by the Professional Services Contractor, the Professional Services Contractor must attend and incorporate the requirements from:

i. the "Tier 6 Possession Coordination Meeting" with Sydney Trains held approximately 12 weeks prior to the Track Possession. This meeting will decide the coordination of all activities in the Track Possession, working hours, movements of equipment and work trains in the Track Possession area;

ii. the "Possession Coordination Meeting" with Sydney Trains held approximately two weeks prior to the Track Possession to discuss train movements and safe working; and

iii. the "Pre-Possession Meeting" with Sydney Trains, usually held prior to the Track Possession to confirm the detailed arrangements for the Track Possession and coordinate the activities of each party working in the Track Possession.

(b) For each Track Possession to be utilised by the Professional Services Contractor, the Professional Services Contractor must conform to the requirements of the relevant Rail Transport Operator.

(c) If a Track Possession involves an asset or partial asset being handed over to the Asset Owner or Operator/Maintainer (even if only for maintenance prior to it being commissioned), a Commissioning event and formal Asset Handover will be required. In these circumstances, the following documents appertaining to the assets being handed over are required to be submitted to the Principal's Representative for review at least six weeks prior to the Track Possession:

i. Safe Work Method Statements;

ii. residual risk assessments;

iii. relevant Configuration Materials including operations and maintenance manuals, drawings, as directed by the Principal's Representative;

iv. design documentation; and

v. any other Contract Material required, as directed by the Principal's Representative.

(d) Where power isolation is required, the Professional Services Contractor must specify what power is required to be shut down and the time and duration required

for the power isolation. This information must be submitted to the Principal's Representative for review, in accordance with the Agreement at least 16 weeks prior to each Track Possession.

2.2 Interface Arrangements During Track Possessions

(a) The Professional Services Contractor may not have exclusive access to any Rail Tracks or areas within the vicinity of Rail Tracks during a Track Possession. The Professional Services Contractor must coordinate the Services with those sharing the Track Possession, including parties involved in the operation or maintenance of the rail system and Other Contractors. This includes, where required, the Professional Services Contractor allowing for Operator/Maintainers' contractors and Other Contractors to pass through the worksites during the Track Possessions.

(b) The extent of Operator/Maintainers Contractors and Other Contractors activities on or within the vicinity of the Rail Track during Track Possessions will be determined at the "Tier 6 Possession Coordination Meeting".

(c) The Professional Services Contractor must ensure that all persons invited or brought onto the Site by the Professional Services Contractor or Other Contractors, and those who enter an area within the Rail Corridor undertake all necessary Site inductions and obey all directions given by the Worksite Protection Personnel.

(d) Prior to the end of the Track Possession, an appropriately qualified inspector holding the appropriate competencies must approve adequate completion of the relevant works and sign off on "Sydney Trains Certificate of Practical Completion/Certification (W42F01)".

(e) Any Defects listed on W42F01 must be rectified by the Professional Services Contractor to the satisfaction of the Principal's Representative within 5 Business Days of the issue of the relevant W42F01.

(f) The Principal's Representative may alter, cancel or curtail any Track Possession at any time.

2.3 Requesting Additional Track Possessions

(a) It is unlikely that, in addition to those specified in the Agreement, weekend Track Possessions, the Operator/Maintainer's resources and/or Track Possessions (with or without power) in overnight periods when trains are not running, will be available. If the Professional Services Contractor requires additional Track Possessions, power isolation and/or the Operator/Maintainer's resources, they are to be arranged by the Professional Services Contractor at the Professional Services Contractor's own cost. This includes reimbursing the Principal's Representative for any costs that it incurs in respect of granting the additional Track Possessions and procuring the Operator/Maintainer's resources.

(b) The Professional Services Contractor must provide a written request for additional Track Possessions or power isolation of overhead and transmission lines with a notice period as specified in the Agreement.

(c) Upon a written request by the Professional Services Contractor, the Principal will seek to facilitate obtaining additional Track Possessions, power isolations and/or the Operator/Maintainer's resources for the Professional Services Contractor by arranging a meeting between the Professional Services Contractor and the Operator/Maintainer. At this meeting or subsequent meetings, possible dates for Track Possessions, power isolations and/or additional Operator/Maintainer's resources may be identified.

(d) The Principal does not guarantee the granting of, and is not obliged to arrange additional Track Possessions, power isolations or Operator/Maintainer resources on any particular date, or at all.

2.4 Planning and Managing Track Possessions

To ensure that Track Possessions are managed effectively and safely, the Professional Services Contractor must:

(a) prepare, maintain and update policies and procedures for planning and managing Track Possession work in accordance with the "Sydney Trains Possession Manual".

(b) prepare and submit to the Principal's Representative for review for conformance with the "Sydney Trains Possession Manual", six weeks prior to each Track Possession:

i. a consolidated plan comprising all information required in advance of the Track Possession including that detailed in the "Sydney Trains Possession Manual"; and

ii. a program including:

A. the elements of the Services to be completed prior to the Track Possession;

B. an hour by hour breakdown of the elements of the Services to be carried out during the Track Possession;

C. milestones and the time and date by which they must be achieved so as to ensure that the rail infrastructure can be reinstated within the allocated time and which, if not achieved by the nominated time, would result in the Professional Services Contractor bringing work to an end and commencing reinstatement of the rail infrastructure and other works to avoid a delay in returning the Track Possession and/or delays to trains;

D. adequate allowance of time at the beginning and end of the Track Possession to safely remove and reinstate the affected rail infrastructure to operational condition and for providing and removing safeworking protection and the Operator/Maintainer inspections and certifications;

E. the specific risks to be managed during the Track Possession and the procedures to be followed in managing these risks;

F. any potential interface issue in any way connected with work carried out by an Other Contractor or involving the Operator/Maintainer's operational and maintenance activities; and

G. progress/program review meetings scheduled during the Track Possession as requested by the Principal's Representative and/or the Operator/Maintainer.

(c) The Professional Services Contractor must immediately comply with any instructions by the Principal's Representative to vary the program described in clause 2.4 (b) of this Annexure F or curtail the Services if the Principal's Representative considers that continuing with intended Works will result in a delay to returning the Track Possession and/or delay to trains.

2.5 Certification of Work in Track Possessions

(a) Before handover of an area at the end of any Track Possession the Professional Services Contractor must provide to the Principal and, if required by the Principal's Representative, to the Operator/Maintainer as well; the following:

i. for any form of civil or structural works that will support operating Rail Track, written certification by the Professional Services Contractor's designers (including design Subcontractors) that the relevant works are safely able to support the operating rail infrastructure;

ii. for any adjustments to or interruptions of service to signalling, track, overhead wiring or high voltage infrastructure, written certification from the Professional Services Contractor's designers (including design Subcontractors) that such infrastructure is suitable for operations and complies with the approved design;

iii. for any adjustments to or interruptions of service to signalling, overhead wiring or high voltage infrastructure, written certification from a Sydney Trains (or other relevant Operator/Maintainer's) representative that such infrastructure is suitable for operations; and

iv. all other infrastructure certification as required by Sydney Trains or the relevant Operator/Maintainer and/or Asset Owner.

3.0 Rail Safety

3.1 Project Work Notification and Work Activity Advice

(a) The Professional Services Contractor must:

i. complete and submit the relevant Operator/Maintainer's Project Work Notification or other applicable document to the Principal's Representative at least six weeks prior to the planned works, including any works in a Track Possession.

ii. comply with the requirements of the "TfNSW/Rail Transport Operator Safety Interface Contract".

iii. Produce a Work Activity Advice (WAA) using the form "TfNSW Work Activity Advice Form – 4TP-FT-105." 4 weeks prior to the commencement of the Services. Each WAA must cover a particular part of the Services and include the SWMS applicable to that part of the Services; and

iv. conduct a pre-work briefing with all personnel involved, including the Protection Officer as defined in the RailSafe Network Rules and Procedures, prior to commencing.

3.2 Competencies

(a) The Professional Services Contractor must provide the Principal's Representative with a list of position descriptions which identifies whether each position is a Rail Safety Worker. The Principal may require alteration of the designation of Rail Safety Workers as nominated by the Professional Services Contractor.

(b) Any person supervising or setting up safe work arrangements for the Services on or in the vicinity of the Rail Corridor must hold the qualifications required by the Rail Transport Operator and the Principal.

(c) The Professional Services Contractor 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.

(d) The Professional Services Contractor must consult with the Principal's Representative to obtain a determination as to when the RIW card is required. The Professional Services Contractor must ensure that any visitors required to enter the Rail Corridor complete the relevant safety inductions.

3.3 Fatigue Management, Medical and Health Management

For workers carrying out Rail Safety Work the Professional Services Contractor must apply the following fatigue, medical and health minimisation controls:

(a) implement a fatigue management program that:

i. addresses the requirements of the *Rail Safety National Law* and this Agreement;

ii. 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;

iii. restricts workers that have worked more than 12 hours from driving after finishing work;

iv. includes periods of 11 hours rest away from work;

v. restricts the maximum number of work days to 12 work days in 14 consecutive days;

vi. minimises to five consecutive occasions where eight hours are worked at night (i.e. after normal office hours) or four consecutive occasions where 10 hours are worked at night or three consecutive occasions where 12 hours are worked at night without a 48 hour rest break;

vii. ensures employees receive a minimum of 48 consecutive hours free of work in a 14-day period; and

viii. has the capacity to replace or relieve workers where unplanned or unavoidable extended hours have created a risk to employee health and safety;

(b) 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";

(c) 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

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

3.4 Work on Track Methods for Working Safely

(a) Unless specified by the issue of a safeworking notice by the Principal's Representative, the primary work on track methods for working safely are summarised as follows:

i. "Construction Site" - A worksite under construction without any rail traffic movements, or traction power systems being installed. Worksite Protection and RIW Identification are not required; and

ii. "TfNSW Rail Site" - A Principal's Representative managed and controlled rail-site which has no interface access with other rail sites or rail systems.

(b) Services within or potential to impact the Danger Zone requires Local Possession Authority in accordance with the RailSafe Network Rules and Procedures.

(c) Should a TfNSW Rail Site encroach on the Danger Zone of any other adjoining Rail Transport Operator rail-sites, then:

i. adjacent line protection must be implemented and managed in accordance with the rules of the adjoining Rail Transport Operator; and

ii. an access interface is considered removed if points that allow entry and exit to the rail-site are secured and a physical barrier is established at the limits of the TfNSW Rail Site.

(d) Where the Services are undertaken within a rail-site managed and controlled by another accredited Rail Transport Operator, the other Rail Transport Operator's Network Rules and Procedures apply.

3.5 Worksite Protection Personnel

(a) Worksite Protection is required for carrying out any Services within the Rail Corridor in accordance with the RailSafe Network Rules and Procedures and/or the requirements of the Rail Transport Operator.

(b) The Worksite Protection Personnel are required to hold a minimum of Worksite Protection Personnel level 2 accreditation (PO2).

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

(d) Where the Principal is to provide the Worksite Protection Personnel, the Professional Services Contractor must provide 10 Business Days' notice in writing to the Principal's Representative requesting the number of Worksite Protection Personnel required.

3.6 Use of Rolling Stock, Hi-Rail Vehicles and Work Trains

(a) Rolling stock and rail traffic are not permitted to travel or operate on the Site without the approval of the Principal.

(b) The Principal's Representative may also impose requirements, limitations and constraints on rail traffic travelling or operating on the Site.

(c) To the extent that any part of the Services requires the use of hi-rail vehicles or work trains the Professional Services Contractor must:

i. ensure that such vehicles are only operated by persons with appropriate competencies and by an organisation which holds accreditation as a

"Rolling Stock Operator" (as that term is defined under the Rail Safety National Law);

ii. ensure that hi-rail vehicles are duly checked and certified as being fit for their intended use at the start of each shift;

iii. ensure the hi-rail vehicle has been certified as compliant and safe to use with the hi-rail modifications by the Original Equipment Manufacturer (or an independent competent engineer, including from a WHS and rail safety perspective;

iv. ensure that the utilisation of hi-rail vehicles or work trains is appropriately addressed in the Professional Services Contractor's procedures to ensure safe operations, to prevent injury and damage to infrastructure and to ensure that responsibilities are identified and documented;

v. assess the past record of potential Subcontractors to ensure that they comply with the *Rail Safety National Law* and relevant rail accreditation requirements. The results of these assessments must be made available to the Principal's Representative upon request;

vi. set out and carry out regular reviews of the performance of train and hi-rail operators engaged for the undertaking of the Services (including at least one review after each major Track Possession or Incident, or in any event every three months). The results of these reviews must be made available to the Principal's Representative upon request; and

vii. only use rolling stock, hi-rail vehicles and work trains authorised on the Vehicle Registration Database.

3.7 Swing Arm Plant – Rail Environment

(a) The Professional Services Contractor must ensure the use of restrictors for swing arm plant.

(b) The Professional Services Contractor's activity 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 Professional Services Contractor in conjunction with the Project Rail Safeworking Coordinator and any other required project personnel.

(c) The Professional Services Contractor's pre-work briefing must include the following items:

i. description of swing arm plant and equipment being used, including the type of restrictor(s) being used;

ii. 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);

iii. arrangements for the provision of a spotter;

iv. reference to the details included in the Worksite Protection Plan prepared by the Protection Officer that includes swing arm plant considerations; and

v. in the case of operations involving the use of a crane, details of the lifting plan.

3.8 Rail Safety Worker Assessments.

The Professional Service Contractor must assure the competence of their Rail Safety Workers by one of the following methods:

(a) to the extent that the Professional Service Contractor has its own competence management system (regardless of whether or not it is an RTO in its own right), the Professional Service Contractor must demonstrate and provide evidence that the requirements and criteria of the TfNSW Rail Safety Competence Standard 60-ST-153 have been met. A component of the demonstration will necessitate an assessment by the Principal of the Professional Service Contractor's competence management system to verify that its system meets the requirements of this Standard.

(b) to the extent that the Professional Service Contractor does not have its own competence management system, they will be required to demonstrate that the Professional Service Contractor can meet the competencies required to undertake Rail Safety Work via assessment as part of the TfNSW competence management process.

Annexure G Sustainability and Climate Change

1.0 Sustainability Requirements

Where nominated in Annexure A, the Professional Services Contractor must:

(a) comply with the "TfNSW "NSW Sustainable Design Guidelines" to meet a minimum design rating of Silver, Gold or Platinum, as indicated in Annexure A.

(b) submit a completed "TfNSW NSW Sustainable Design Guideline Checklist" in electronic format to the Principal's Representative for review and comment at the interval stated in Annexure A, confirming compliance with the requirements of "TfNSW NSW Sustainable Design Guideline Checklist".

(c) prepare and submit to the Principal's Representative for review and comment, a Greenhouse Gas Inventory Report using the "TfNSW Carbon Estimation and Reporting Tool (CERT)" at each of the following stages:

i. SDR or equivalent design stage (20% design);

ii. CDR or equivalent design stage (100% design); and

(d) prepare and submit for review and comment by the Principal's Representative, a Climate Risk Assessment (CRA) Report in accordance with the "TfNSW TfNSW Climate Risk Assessment Guidelines 9TP-SD-081" at the commencement of SDR (or equivalent) stage of design. This report must, as a minimum:

i. identify any project-specific climate change risks (utilising climate modelling data);

ii. recommend risk mitigation measures to reduce the identified climate risks; and outline how risk mitigation measures will be addressed through the design process to reduce "extreme", "high" and "medium" risks to "low" where practicable; and

iii. demonstrate how the recommended risk mitigation measures will carry through to the on-site activities and could be applied in the operational phase of the project.

(e) register the project with the Infrastructure Sustainability Council of Australia and obtain a minimum 'design' rating of 'commended', 'excellent' or 'leading'.

(f) demonstrate, by inclusion in the Contract Management Plan and other relevant Sub plans, their:

i. Corporate or project-specific equal employment opportunity Policy or Guideline and how its requirements will be implemented; and

ii. A learning and development program that is specific to the project.

2.0 NSW Government Resource Efficiency Policy (GREP)

Where nominated in Annexure A, the Professional Services Contractor must:

(a) make available documents and evidence to assure the Principal that the Services are compliant with the requirements of the GREP policy;

(b) comply with the following requirements, to the extent they apply to the Services:

i. E3. Minimum standards for new electrical appliances and equipment;

ii. E4. Minimum standards for new buildings, such that all new office buildings and fit-outs will be designed and built to a predicted performance

of at least 4.5 stars for NABERS energy rating. For building types other than office buildings and fit outs, and where the facilities have projected development costs over $10 million, the buildings must be designed and built so that energy consumption is predicted to 10% lower than if built to minimum compliance with National Construction Code requirements;

iii. W3. Minimum standards for new water using appliances; and

iv. A2. Low Volatile Organic Compound surface coatings.

(c) prepare the following reporting tools in the form provided by the Principal, and submit to the Principal's Representative for review and comment:

i. an inventory of non-road diesel vehicles to be used in carrying out the Services, within 1 month of the date of the Agreement, and subsequently, annually (where the duration of the Agreement is of more than 1 year) – using "TfNSW Air Emission Data Collection Workbook 9TP-FT-439"; and

ii. a "TfNSW Waste Data Collection Workbook 9TP-FT-436" to be submitted 6 monthly, by no later than the last Friday of the second week in July and January.

Annexure H Professional Services Contractor's Monthly Report

The Professional Services Contractor must provide a monthly report on the 25th day of each month, which includes the following information for the previous 30 days:

Item	Description
A	A summary of the status of progress at the end of the previous month, as compared to the current Professional Services Contractor's Program and the Contractor's other programs including photographs
B	An A3 size PDF copy of the Professional Services Contractor's Program
C	Planned activities over the forthcoming 3 month period
D	A list and timing of Hold Points and Witness Points planned for the forthcoming 3 month period (if applicable);
E	The status of any Document, design documentation, Contract Material or other deliverables, major procurement orders, Subcontracts, and the overall delivery of the Services
F	Dates for the anticipated submission of design packages at key stages of the design as defined in the Services Brief;
G	The actual number and categories of personnel and equipment currently engaged by the Professional Services Contractor to carry out the Services (including apprentices and those engaged in off-site functions such as engineering and specialist Subcontractors). This data must also be compared with the planned resources
H	A summary of the financial status of the Agreement, including detailed final cost forecasts, and separate lists for the cost of approved Variations, claims and outstanding claims for Variations
I	Where applicable, the status of any activities against all the requirements of approvals from Authorities, including planning consents
J	Safety statistics in a format agreed with the Principal's Representative
K	Details of any reportable Incidents;
L	A consolidated SWMS register showing active and completed SWMS
M	Any non compliances or non conformances of the Services in relation to the Agreement, approvals from Authorities and other obligations in Law and the steps taken by the Professional Services Contractor to address those non compliances or non conformances
N	Records of all corrective and preventative actions taken by the Professional Services Contractor and audits of such actions
O	Cooperation, coordination, industrial relations and interface matters with Other Contractors
P	Summary updates relating to community issues and potential community issues
Q	Details of all community contacts (detailing issues, frequency, outcomes, dates etc.) from CMS
R	A written summary covering the completed Services and upcoming activities including any associated community impacts, in a form suitable for inclusion on the Principal's website
S	Details of complaints and enquiries received by the Professional Services Contractor in relation to the Services
T	Activities of a mediator or similar process where established under the Agreement
U	Details of the status, implementation, operation and effectiveness of risk identification and

	mitigation measures including: i. a report on the risks deemed 'extreme' or 'high' within the risk register; ii. an overview of the full risk register (e.g. number of risks by category and rating, number of new risks identified and risks closed out during the previous month); iii. the status of associated controls and tasks; and iv. any results of risk audits
V	Where the Services include signalling system works, the progress report must also include a one page summary of the status of signalling design packages
W	Details of any property related matters including property claims; and
X	Any other information the Principal's Representative reasonably requires

Annexure I Reference Documents

The following TfNSW authored documents, referenced in this TSR are not publicly available, and will be supplied as part of the Agreement.

- TfNSW Environmental Incident/Non-Compliance Report 9TP-FT-101
- TfNSW Pre-Construction Minor Works Approval 9TP-FT-202
- TfNSW Generic Work Health and Safety Operational Risk Register 30-SD-101
- TfNSW Generic Rail Safety Risk Register 30-SD-038.
- TfNSW WCAG 2.0 Quick reference guide
- TfNSW Editorial Style Guidelines
- TfNSW Property Compliance Register 2TP-ST-175
- TfNSW Earned Value Management using Primavera P6 4TP-PR-143
- TfNSW Scheduling Standard 4TP-ST-123
- TfNSW Work Activity Advice Form 4TP-FT-105.
- TfNSW Waste Data Collection Worksheet 436
- TfNSW Guide to Compliance Monitoring and Reporting using PECOMS 9TP-SD-012
- TfNSW Fatigue Management Standard ST-011
- TfNSW Rail Safety Competency Standard 60-ST-153
- TfNSW Working Near Utilities Standard 4TP-ST-107