Transport Access Program
Cardiff Station Upgrade
Contract No. MWC-87

Formal Agreement

Transport for NSW
(ABN 18 804 239 602)
Principal

Gartner Rose Pty Ltd
(ABN 31 059 738 242)
Contractor
Formal Agreement dated 29th Jun 2012

Parties

Transport for NSW (ABN 18 804 239 602) of
18 Lee St, Chippendale NSW 2008
(Principal)

Gartner Rose Pty Ltd (ABN 31 059 738 242) of
Unit 15B / 390 Eastern Valley Way, Chatswood NSW 2067
(Contractor)

Background

A. The Principal wishes to engage the Contractor to perform the Contractor’s Activities in accordance with the Contract.

B. The Contractor has agreed to perform the Contractor’s Activities for the Principal in accordance with the Contract.

Operative provisions

1. Performance

The parties acknowledge and agree that they must perform the obligations imposed on them by the Contract.

Without limiting the above:

(a) the Contractor must perform the Contractor’s Activities in accordance with the Contract; and

(b) the Principal must pay to the Contractor the Contract Sum and other amounts payable under the Contract at the times and in the manner provided for in the Contract.

2. Contract documents

The Contract comprises the following documents marked as follows:

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3. Prior work

The terms of the Contract apply to all of the Contractor's Activities performed by the Contractor in connection with the Contract even if they were performed prior to the date of the Contract.

Any payment made to the Contractor by the Principal in connection with the Contract or Contractor's Activities prior to the date of the Contract will be treated as a payment under the Contract and will be in part discharge of the Principal's obligation to pay the Contractor under the Contract.

4. Definitions

Unless the context otherwise requires, the terms included in this Formal Agreement will have the meaning given to them in the General Conditions of Contract.
Transport Access Program
Cardiff Station Upgrade
Contract Number-MWC-87

Executed as a deed poll.

The Seal of Transport for NSW
(ABN 18 804 239 602) was affixed and the sealing is attested by:

Christopher Deccan Lock
Deputy Director General of Transport Projects

Executed by Gartner Rose Pty Ltd
(ABN 31 059 738 242) by or in the presence of:

Marc Maxwell Witham
Name of Director in full

Daniel Giles Rose
Name of Secretary/other Director in full
MEDIUM WORKS CONTRACT

Contract Number: MWC-87

TRANSPORT ACCESS PROGRAM
CARDIFF STATION UPGRADE

Between
Transport for NSW

[PRINCIPAL]
ABN 18 804 239 602

and

Gartner Rose Pty Ltd

[CONTRACTOR]
ABN 31 059 738 242

Transport for NSW
Level 5, Tower A, Zenith Centre,
821 Pacific Highway,
Chatswood NSW 2067
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EXHIBIT B - WORKS BRIEF
EXHIBIT D - PLANNING APPROVAL
EXHIBIT E - CONTRACT SPECIFIC REQUIREMENTS
EXHIBIT F - REPORTS
EXHIBIT G - LIST OF WARRANTIES REQUIRED FROM SUBCONTRACTORS
EXHIBIT I - (NOT UNUSED)
MEDIUM WORKS CONTRACT (CONSTRUCT ONLY) - GENERAL CONDITIONS

This Contract is between the Principal and the Contractor described in the Contract Particulars.

GENERAL CONDITIONS

1. Definitions and Interpretation

1.1 Definitions

In this Contract, unless the context otherwise indicates:

"Authority Approval" means any licence, permit, consent, approval, determination, exemption, certificate, memorandum of understanding, notification or permission from any Authority or under any Law, or any requirement made under any Law, which must be obtained or satisfied (as the case may be) to:

(a) carry out the Contractor's Activities including for the avoidance of doubt all things required for conducting work within the Rail Corridor or affecting rail operations and all things required for dealing with, transporting and disposing of Contamination, Hazardous Materials or waste; or

(b) occupy and use for its intended purpose the completed Works or a completed Portion,

(c) and for the avoidance of doubt includes the Planning Approval.

"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 RailCorp) and any private electricity, telecommunications, gas or other utility company having statutory rights in relation to the Works or the Contractor's Activities.

"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.

"Change in Law" means (if it takes effect after the date of this Contract):

(a) a change in an existing Law (other than a change in an Authority Approval); or

(b) a new Law (other than a new Authority Approval),

compliance with which:

(c) has a direct effect on the Contractor carrying out the Contractor's Activities; and

(d) directly results in an increase or decrease in the Contractor's costs of carrying out the Contractor's Activities, or a delay to the Contractor achieving Completion of the Works or a Portion by the relevant Date for Completion in accordance with clause 10.7(a),

(e) but excludes a change in an existing Law or a new Law in respect of Taxes.
"Claim" includes any claim for an increase in the Contract Sum, for payment of money (including damages), for an extension of time to a Date for Completion or for any other form of relief:

(a) under, arising out of, or in any way in connection with, this Contract, including any direction of the Principal's Representative;

(b) arising out of, or in any way in connection with, the Contractor's Activities or the Works or either party's conduct prior to the date of this Contract; or

(c) otherwise at law or in equity including:

(i) by statute;

(ii) in tort for negligence or otherwise, including negligent misrepresentation; or

(iii) for restitution, including restitution based on unjust enrichment.

"Completion" means the stage in the execution of the Contractor's Activities when:

(a) the Works are, or a Portion is, complete in accordance with this Contract except for minor Defects:

(i) that do not prevent the Works or the Portion from being reasonably capable of being used for the intended purpose of the Works or the Portion;

(ii) that can be rectified without prejudicing the convenient intended use of the Works or the Portion; and

(iii) in respect of which the Contractor has reasonable grounds for not promptly rectifying;

(b) the Contractor has:

(i) carried out and passed all tests that:

A. are required under this Contract to be carried out and passed before the Works or a Portion reaches Completion; or

B. must necessarily be carried out and passed to verify that the Works or a Portion is in the condition this Contract requires the Works or Portion (as the case may be) to be in at Completion;

(ii) without limiting clause 2.3(b)(iv), obtained all Authority Approvals that it is required under this Contract to obtain before Completion of the Works or a Portion and provided such Authority Approvals to the Principal's Representative;

(iii) given to the Principal's Representative all other documents and information:

A. required (including in accordance with the asset management requirements of the TfNSW Standard Requirements) for the use, operation, maintenance and repair of the Works or a Portion; and

B. that are to be handed over to the Principal's Representative before Completion;
(iv) complied with all performance requirements that this Contract requires to be verified before Completion of the Works or a Portion; and

(v) provided the Principal's Representative with the Contractor's Certificate of Completion in the form of Schedule 20 for the Works or a Portion; and

(c) the Contractor has done everything else that it is required to do under this Contract before Completion of the Works or a Portion including those things referred to in Schedule 1.

"Construction Plant" means equipment, appliances, machinery and things used in the execution of the Contractor's Activities but not forming part of the Works.

"Contamination" has the meaning given to "Contamination" in the Contaminated Land Management Act 1997 (NSW).

"Contract" means the contract between the Principal and the Contractor in respect of the Works constituted by the documents referred to in clause 2 of the Formal Agreement which has been signed by the Principal and the Contractor.

"Contract Documentation" means all documentation in computer readable or written forms brought (whether before or after the date of this Contract) or required to be brought into existence as part of, or for the purpose of, performing the Contractor's Activities including:

(a) all Design Documentation; and

(b) all plans, manuals, programs and other documents.

"Contractor" means the person named as the Contractor in Schedule 1.

"Contractor's Environmental Management Plan" means the plan which forms part of the Contract Management Plan which is required to be provided and implemented by the Contractor pursuant to the TfNSW Standard Requirements.

"Contractor's Program" means the program prepared and provided by the Contractor in accordance with clause 10.2, as developed and updated in accordance with clause 10.2 from time to time.

"Contractor's Activities" means all things or tasks which the Contractor is, or may be, required to do to comply with its obligations under this Contract, including the design (where required), construction, commissioning and hand-over of the Works and the provision of Temporary Works and Construction Plant.

"Contractor's Representative" means the person notified to the Principal's Representative in accordance with clause 9.4(a) as being the Contractor's Representative.

"Contract Management Plan" means the document required to be provided and implemented by the Contractor pursuant to the TfNSW Standard Requirements as developed, amended or updated from time to time in accordance with the Contract.

"Contract Sum" means the Original Contract Price increased or decreased by the amounts by which this Contract requires the Contract Sum to be increased or decreased.

"Crown Building Work" has the meaning given in section 109R of the Environmental Planning and Assessment Act 1979 (NSW).

"Date for Completion" means in respect of the Works or a Portion the date, or the last day of the period of time, specified in Schedule 1 for the Works or that Portion, as adjusted under this Contract by an extension of time determined by the Principal's Representative or pursuant to any litigation.
"Date of Completion" means:
(a) the date of Completion of the Works or a Portion, set out in a Notice of Completion; or
(b) where another date is determined in any determination by any court pursuant to clause 15 as the date upon which Completion was achieved, that date.

"Date of Final Completion" means;
(a) the date determined in accordance with clause 12.8(e) as the date Final Completion was achieved; or
(b) where another date is determined in any determination by any court pursuant to clause 15 as the date upon which Final Completion was achieved, that date.

"Defect" means any:
(a) defect, deficiency, fault, error or omission in the Works or Temporary Works, including subsidence, shrinkage and movement outside the required tolerances; or
(b) other aspect of the Works, Temporary Works or Contractor’s Activities that is not in accordance with the requirements of this Contract, including non-compliances, non-conformances and non-conformities.

"Defects Rectification Period" means the period stated in Schedule 1, as extended by clause 8.6.

"Design Documentation" means all design documentation which:
(a) the Contract requires the Contractor to produce to construct the Works and the Temporary Works; or
(b) the Contractor is required to prepare pursuant to a Variation directed under the Contract which requires the Contractor to design the work the subject of the Variation.

"Document" means any document which is required to be submitted for the review of the Principal’s Representative under a provision of this Contract, including the Contract Management Plan, Design Documentation (if any) and the Contractor’s Program.

"Dispute" has the meaning given in clause 15.1.

"Environment" includes any or all of the following media:
(a) air (including air within buildings or other natural or man-made structures whether above or below ground);
(b) water (including surface waters, groundwater, coastal and inland waters and water within any natural or man-made structures);
(c) land (including land under water, surface and sub-surface land); and
(d) fauna, flora, ecosystems and humans.

"Environmental Representative" means the person identified in Schedule 1 as the environmental manager appointed by the Principal, or any replacement notified to the Contractor by the Principal’s Representative.

"Excepted Risk" means any one of:
(a) war, invasion, act of foreign enemies, hostilities (whether war is declared or not), civil war, rebellion, revolution, terrorism, insurrection or military or usurped powers, martial law or confiscation by order of any government or public authority;
b) ionising radiations or contamination by radioactivity from any nuclear fuel or from any nuclear waste from the combustion of nuclear fuel not caused by the Contractor or its Subcontractors or either's employees or agents; or

c) any other event so described in Schedule 1.

"Extra Land" means the land referred to in clause 3.4(a).

"Final Completion" means the stage in the execution of the Contractor's Activities when:

(a) all Defects Rectification periods (including any extension under clause 8.6 have expired;

(b) the Contractor has:

(i) carried out and passed all tests which:

A. are required under this Contract to be carried out and passed before the Works reach Final Completion; or

B. must necessarily be carried out and passed to verify that the Works are in the condition this Contract requires them to be in at Final Completion;

(ii) obtained all Authority Approvals that it is required under this Contract to obtain but which were not obtained before Completion of the Works or are to be obtained prior to Final Completion, and provided such Authority Approvals to the Principal's Representative;

(iii) given to the Principal's Representative all other documents or information referred to in this Contract:

A. which are required for the use, operation, maintenance and repair of the Works; or

B. which are required to be handed over to the Principal's Representative before Final Completion; and

(iv) complied with all performance requirements under this Contract that must be verified before Final Completion; and

(c) the Contractor has done everything else which it is required to do under this Contract before Final Completion.

"Hazardous Material" means any natural or artificial substance whether solid, liquid or gas (alone or in combination with any other substance) which is toxic, flammable or otherwise capable of causing harm to humans or damage to the Environment including asbestos, toluene, polychlorine biphenyls, lead based paints, glues, solvents, cleaning agents, paints, water treatment chemicals and stone containing silica.

"Incident" means any work health and safety or environmental or security incident arising from the performance of the Contractor's Activities including:

(a) a fatality or injury to any person including any incident which must be reported to New South Wales WorkCover Authority;

(b) loss of containment or escape of any Hazardous Material (such as a spill of petrol, diesel, oil or chemicals);

(c) any escape of or migration of Contamination off-Site and into the Environment;

(d) an occurrence or set of circumstances, as a consequence of which:

(i) Pollution; or
(ii) an adverse environmental impact including Contamination, unauthorised harm to flora and/or fauna (either individual species or communities), unauthorised damage to heritage items and community impacts, has occurred or is likely to occur;

(e) any fire or dangerous event on the Site;

(f) a security breach;

(g) any unauthorised removal of trees;

(h) a non-compliance with an Authority Approval including the Planning Approval; or

(i) any public complaint.

*Information Documents and Materials* means:

(a) the items specified in Schedule 9;

(b) the Reports; and

(c) all other documents, core and other samples, exhibits and materials in any format or medium including any electronic form provided to the Contractor unless expressly identified as forming part of this Contract, including anything which is expressly stated by this Contract to form part of the Information Documents and Materials.

*Insolvency Event* means when:

(a) one party informs the other party in writing, or its creditors generally, that the party is insolvent or is unable to proceed with its obligations under this Contract for financial reasons;

(b) in relation to an individual, the individual (being a party) commits an act of bankruptcy, a bankruptcy petition is presented against (the party), or (the party) is made bankrupt;

(c) execution is levied against a party by a creditor, debenture holders or trustees or under a floating charge;

(d) in relation to a corporation any one of the following:

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

   (ii) the corporation enters a deed or scheme of company arrangement or composition with creditors;

   (iii) a controller, administrator, receiver, receiver and manager, provisional liquidator or liquidator is appointed to the corporation;

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

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

   (vi) the corporation resolves by special resolution that it be wound up voluntarily (other than for a members' voluntary winding-up), or a meeting of creditors of a party under administration or a deed of company arrangement resolves that the corporation be wound up; or

   (vii) a mortgagee of any property of the corporation takes possession of that property.
"Institution" means any authorised deposit taking institution holding an authority to carry on banking business in Australia under the terms of the Banking Act 1959 (Cth).

"Intellectual Property" means all rights in copyright, patents, registered and unregistered trademarks or name, registered and registrable designs, trade secrets, and all other protected rights of intellectual property defined in Article 2 of the Convention Establishing the World Intellectual Property Organisation of July 1967.

"Interface Contractor" means an Other Contractor, carrying out, or that will carry out, Interface Work, that is listed in Schedule 1 or identified by the Principal's Representative.

"Interface Work" means the work to be executed by Interface Contractors, which will interface with or affect or be affected by the Contractor's Activities and the Works, including that described in the Works Brief.

"Latent Conditions" has the meaning given in clause 3.5.

"Law" means:

(a) Commonwealth, New South Wales or local government legislation, including ordinances, instruments, codes of practice, policy and statutory guidance (but excluding any Building Codes or Australian Standard Codes), requirements, regulations, by-laws and other subordinate legislation;

(b) common law; and

(c) Authority Approvals (including any condition or requirement under them).

"Notice of Completion" means a notice issued under clause 12.3(d)(i) by the Principal's Representative stating that Completion of the Works or a Portion has been achieved.

"Option" means an option referred to in Schedule 15.

"Original Contract Price" means the amount set out in Schedule 1, which is, and all components of which are, exclusive of GST.

"Other Contractor" means RailCorp or any contractor, consultant, artist, tradesperson or other person engaged by the Principal or others to do work, other than the Contractor and its Subcontractors.

"Other Contractor Work" means the works to be undertaken by an Other Contractor on a part of the Site during any period in which the Contractor has been engaged as principal contractor in respect of that part of the Site.

"Parent Company Guarantee" means the Deed which appears in Schedule 17.

"Payment Breakdown Schedule" means Schedule 2.

"Planning Approval" means the Authority Approval set out in Exhibit D as it may be modified from time to time, and any other Authority Approvals issued from time to time by either the Principal or the Minister for Planning (acting in their capacity as determining authority) in respect of the Works.

"Pollution" has the meaning given to "pollution" in the Dictionary to the Protection of the Environment Operations Act 1997.

"Portion" means a part of the Contractor's Activities or Works, as described in Schedule 1 or as determined under clause 12.6.

"Principal" means TfNSW.

"Principal's Representative" means:

(a) the person nominated in Schedule 1; or
(b) any other person appointed from time to time by the Principal under clause 9.2, and includes any appointee under clause 9.3.

"Prohibited Subcontractor" means:

(a) any subcontractor:
   (i) who has made an admission to the Independent Commission Against Corruption that it has engaged in; or
   (ii) in respect of whom the Independent Commission Against Corruption has made a finding that it has engaged in,
(b) corrupt conduct as defined in the Independent Commission Against Corruption Act 1988 (NSW); or
(c) any subcontractor employing an employee in respect of whom paragraph (a) applies.

"Project WHS Management Plan" means the plan which forms part of the Contract Management Plan which is required to be provided and implemented by the Contractor pursuant to the TfNSW Standard Requirements and which must:

(a) set out in adequate detail the procedures the Contractor will implement to manage the Works from a work health and safety perspective;
(b) describe how the Contractor proposes to ensure the Works are performed consistently with Law in relation to work health and safety; and
(c) address the matters specified in Schedule 1.

"Provisional Sum Work" means the work detailed in Schedule 1.

"RailCorp" means Rail Corporation New South Wales, a corporation constituted by section 4(1) of the Transport Administration Act 1988 (NSW) of Level 20, 477 Pitt Street, Sydney NSW 2000

"Rail Corridor" means the area containing the Rail Tracks, 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 Work" has the meaning given in Section 7 of the Rail Safety Act 2008 (NSW).

"Rail Safety Worker" has the meaning given in Section 4 of the Rail Safety Act 2008 (NSW).

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

"Report" means each report referred to in Schedule 1.

"Service" includes any service or item of public or private infrastructure, including railway systems, pedestrian and vehicular corridors, water, electricity, gas, fuel, telephone, existing drainage, sewerage, industrial waste disposal and electronic communications service.

"Site" means:

(a) the lands and other places described in Schedule 1; and
(b) any other lands and places made available to the Contractor by the Principal for the purpose of this Contract.

"Statement of Business Ethics" means TfNSW's Statement of Business Ethics, which may be obtained from TfNSW and is located at: www.transport.nsw.gov.au.

"Subcontract" includes an agreement for supply of goods or services (including professional services and plant hire) or both.

"Subcontractor" includes a consultant or a supplier of goods or services (including professional services and plant hire) or both.

"Taxes" means income, stamp, indirect or other taxes levies, impost, deductions, charges, duties (including import duty), compulsory loans and withholdings (including financial institutions duty, debits tax or other taxes whether incurred by, payable by return or passed on to another person) together with interest thereon or penalties, if any, and charges, fees or other amounts made on, or in respect thereof.

"Temporary Works" means any temporary works required to be carried out or provided by the Contractor for the purpose of the execution of the Contractor's Activities but not forming part of the Works.

"Tender" means the response provided by a Tenderer to the Principal's invitation to submit a tender to undertake the Contractor's Activities.

"Tenderer" means an entity or entities that submitted a Tender for the Contractor's Activities.

"TfNSW" means Transport for NSW, a NSW Government Agency constituted under the Transport Legislation Amendment Act 2011 (NSW).

"TfNSW Standard Requirements" means the documents which appears as Exhibit A to this Contract.

"Track Possession" means a period during which the Contractor has access to rail track for the purpose of carrying out the Contractor's Activities including for the purpose of rectifying Defects.

"Variation" means any change to the Works or the Temporary Works including:

(a) any addition or increase to, or decrease, omission or deletion from, the Works or the Temporary Works; or

(b) any change to the character or quality, or demolition or removal, of any material or work; or

(c) any change to the levels, lines, positions or dimensions of any part of the Works or the Temporary Works,

but it excludes any changes to the Works or the Temporary Works that are required as a result of the exercise of an Option by the Principal's Representative under clause 6.3.

"WHS Guidelines" means the New South Wales Government Occupational Health & Safety Management Systems Guidelines or any document issued from time to time which amends or substitutes this document.

"WHS Management Plan" means the work health and safety plan prepared by the Contractor which must:

(a) set out in adequate detail the procedures the Contractor will implement to manage the Works from a work health and safety perspective;

(b) describe how the Contractor proposes to ensure the Works are performed consistently with Law in relation to work health and safety; and
(c) where the Contractor has been appointed as principal contractor, comply with the specific requirements of Part 6.4 of the Work Health and Safety Regulations 2011 (NSW) in relation to the matters that a WHS management plan must include.

"WHS Legislation" means the Work Health and Safety Act 2011 (NSW) and the Work Health and Safety Regulations 2011 (NSW).

"Works" means the whole of the works, including:

(a) any changes to the Works that are required solely as a result of the exercise of an Option by the Principal's Representative under clause 6.3; and

(b) all Variations,

that the Contractor must design (where required) and construct (including commission and integrate with the Interface Work) and hand-over to the Principal under this Contract.

"Works Brief" means Exhibit B.

1.2 Interpretation

In this Contract 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 Contract 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 Contract or to any other deed, agreement, document or instrument is deemed to include a reference to this Contract 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 Contract;

(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 Contract; 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) subject to clause 3.6, a reference to this Contract includes all Schedules and Exhibits;

(k) 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;

(l) where under this Contract:
   (i) a direction is required to be given or must be complied with;
   (ii) payment of money must be made;
   (iii) an unconditional undertaking must be released; or
   (iv) a default must be remedied,

   within a period of 7 days or less from a specified event, then only Business Days will be counted in computing the number of days;

(m) for the purposes of clauses 10.10, 10.11, 10.12 and 10.13:
   (i) any extension of time to any Date for Completion stated in days; or
   (ii) any reference to "day",

   will include only those days indicated in Schedule 1, or otherwise approved by the Principal's Representative, as working days;

(n) for all purposes other than as set out in clauses 1.2(l) and 1.2(m), or where otherwise designated as a Business Day, "day" means calendar day;

(o) for the avoidance of doubt, a reference to an Other Contractor includes an Interface Contractor;

(p) a reference to "$" is to Australian currency;

(q) a reference to "direction" in the definition of "Claim" in clause 1.1 or in any of clauses 2.1(e), 7.1(a)(ii), 9.1, 9.8(i), 15 and 17 will be read as also including certificate, decision, demand, determination, instruction, notice, order, rejection, request or requirement but will not include any failure to reject a Document;

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

(s) 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;

(t) any reference to "intended purpose" in:
   (i) the definition of "Completion" in clause 1.1; or
   (ii) clauses 1.4, 2.3(b), 3.2, 4.1, or 5.1,
will be read as referring to the intended use or intended purpose having regard to any intended use or intended purpose stated in, contemplated by or ascertainable from the terms of this Contract including the requirement that the Works, when completed will be designed and constructed in compliance with all health and safety requirements of the WHS Legislation; and

(u) any references to standards, codes, guidelines or other similar documents, including Standards Australia publications, must be read as a reference to the version of the particular document current at the date of the Contract.

1.3 Ambiguous terms

(a) If the Principal's Representative considers, or if the Contractor notifies the Principal's Representative in writing that it considers, that there is an ambiguity, inconsistency or discrepancy in the Contract (including in any Exhibit), the Principal's Representative must, subject to clause 1.4, direct the interpretation of this Contract which the Contractor must follow.

(b) The Principal's Representative, in giving a direction in accordance with clause 1.3(a), is not required to determine whether or not there is an ambiguity, inconsistency or discrepancy in this Contract.

1.4 Order of precedence

In the event of any inconsistency, ambiguity or discrepancy between the various documents comprising this Contract, the order of precedence in Schedule 1 applies.

1.5 Deed Poll by Contractor

If required by Schedule 1 as a condition precedent to any obligation of the Principal to pay the Contractor any amount under clause 11.4 the Contractor must, within 10 days of the date of this Contract, provide to the Principal's Representative an executed deed poll in the form set out in Schedule 16 in favour of the persons named in Schedule 1.

2. Contractor's obligations

2.1 General

The Contractor:

(a) must execute the Contractor's Activities, including design (where required), construct and hand-over the Works, in accordance with this Contract;

(b) to the extent they are designed by the Contractor the Works and the Temporary Works will be fit for their intended purpose;

(c) must exercise reasonable skill, care and diligence in the performance of the Contractor's Activities;

(d) must employ the person or persons specified in the Contract Particulars, including the Contractor's Representative, in the performance of the Contractor's Activities;

(e) must commence and progress the Contractor's Activities expeditiously and in accordance with any directions of the Principal and achieve Completion by the Date for Completion;
must use all reasonable efforts to inform itself of the requirements of the Principal and regularly consult with the Principal during the performance of the Contractor's Activities;

must, prior to commencement of the Contractor's Activities, execute the deed poll in schedule 23, and return the executed deed poll to the Principal; and

must liaise, cooperate and confer with others as directed by the Principal.

2.2 Subcontracts

(a) Subject to clause 2.2(b) the Contractor may enter into Subcontracts for the vicarious performance of its obligations under this Contract.

(b) The Contractor must not enter into any Subcontract with:

(i) a Prohibited Subcontractor; or

(ii) an initial subcontract price equal to or over the amount specified in Schedule 1 without the prior written approval of the Principal's Representative (which may be conditional but which will not be unreasonably withheld).

Any request by the Contractor for approval to subcontract under this clause 2.2(b) must be in writing and include such details as may be required by the Principal's Representative, including details of the proposed Subcontract conditions, and the proposed Subcontractor's capacity to undertake the relevant work, past performance in undertaking similar work, safety (including work health, safety and rehabilitation issues and providing evidence of compliance with clause 2.2(g)), environmental compliance (including any environmental management system) and other performance, management systems and proposed safe working procedures.

Within 14 days after a request by the Contractor for approval, the Principal's Representative will advise the Contractor whether the request is approved or not and, where it is not approved, the reasons why approval is not given.

(c) The Contractor must ensure that each Subcontractor referred to in Schedule 1:

(i) effects and maintains professional indemnity insurance which:

A. covers the Subcontractor's liability in respect of breaches of professional duty (whether owed in contract or otherwise) by the Subcontractor or its sub-subcontractors in carrying out the work under the relevant Subcontract;

B. covers the Subcontractor for liability to the Principal or the Contractor for the relevant minimum amount listed in Schedule 1 per claim for loss (whether economic loss only or other loss) in a single claim;

C. unless the Subcontractor using its best endeavours is unable reasonably to procure such a term in the policy, includes at least one automatic reinstatement of the total limit of liability per annum after claims have been paid; and

D. remains in place at least until the expiration of a 6 year period from completion of the relevant Subcontract works or professional services; and
(ii) is obliged under the relevant Subcontract to comply with clause 13.6(c) of this Contract in relation to the insurance referred to in sub-paragraph (i).

(d) The Contractor will be:

(i) fully responsible for the Contractor's Activities despite subcontracting the carrying out of any part of the Contractor's Activities; and

(ii) vicariously liable to the Principal for all acts, omissions and defaults of its Subcontractors (and those of the employees, Subcontractors and other agents of its Subcontractors) relating to, or in any way connected with, the Contractor's Activities.

(e) The Contractor must:

(i) without limiting clause 16.22(c), ensure that each of its Subcontracts that has an initial subcontract price of the amount specified in Schedule 1 or more includes provisions to the effect set out in Schedule 5 and a clause to the same effect as this clause 2.2(e)(i) that is binding on the Subcontractor and provide evidence of this to the Principal's Representative when requested by the Principal's Representative;

(ii) where a Subcontractor is to carry out professional services, unless not required by the Principal's Representative, procure that Subcontractor to execute a Deed in the form of Schedule 6 and provide this to the Principal's Representative within 7 days of the engagement of that Subcontractor;

(iii) ensure that each Subcontractor and subcontractor to one of its Subcontractors executes a Confidentiality Undertaking in the form of Schedule 3 and provides this to the Principal's Representative within 7 days of the engagement of that Subcontractor or subcontractor; and

(iv) procure that each of its Subcontractors:

A. engaged under a Subcontract that has an initial subcontract price equal to or greater than the amount specified in Schedule 1; or

B. in respect of the categories of work set out in Schedule 1 (regardless of subcontract price), executes a deed in the form of Schedule 14 and provides this to the Principal's Representative within 7 days of being engaged by the Contractor.

(f) The Contractor must, as a condition precedent to Completion of the Works or a Portion, procure and provide the Principal's Representative with those warranties described in Schedule 1 or elsewhere in this Contract from relevant Subcontractors undertaking or supplying the work or items the subject of the warranty.

These warranties:

(i) must be in the form set out in Schedule 11 and must be in favour of the Principal and RailCorp; and

(ii) will not derogate from any rights that the Principal may have against the Contractor in respect of the subject matter of these warranties.

(g) The Contractor must:
ensure that, if any Law, including in the State or Territory in which the Works are situated or the Works are carried out (as the case may be), require that:

A. a person:
   1) be authorised or licensed (in accordance with the WHS Legislation) to carry out any work at that workplace, that person is so authorised or licensed, and complies with any conditions of such authorisation or licence; and/or
   2) has prescribed qualifications or experience 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

B. 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;

(ii) not direct or allow a person to carry out or use plant or substance at a workplace unless the requirements of subparagraph (i) are met (including any requirement to be authorised, licensed, qualified or supervised); and

(iii) if requested by the Principal's Representative or required by the WHS Legislation, produce evidence or 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's Representative before the Contractor or subcontractor (as the case may be) commences such work.

2.3 Compliance with Law

(a) Subject to clause 2.3(b)(i), the Contractor must in carrying out the Contractor's Activities:

(i) comply with all applicable Law;

(ii) give all notices and pay all fees, bonds and other amounts which it is required to pay in respect of the performance of its obligations under this Contract and give the Principal's Representative copies of all notices it gives to Authorities at the time or before it submits such notices to Authorities;

(iii) give the Principal's Representative copies of all documents (including Authority Approvals and other notices) that Authorities issue to it; and

(iv) at all times conform and comply with the guidelines, standards and codes of practice set out in Schedule 1.

(b) The Contractor must:
obtain all Authority Approvals required for the execution of the Contractor's Activities (and for that purpose prepare and submit all applications and associated documents to relevant Authorities), except for those Authority Approvals specified in Schedule 7 that either:

A. were obtained by the Principal prior to the date of this Contract; or

B. will be obtained by the Principal after the date of this Contract where required;

(ii) unless otherwise expressly specified in Schedule 4, comply with, carry out and fulfil the conditions and requirements of all Authority Approvals (whether obtained by the Contractor or the Principal), including those conditions and requirements that the Principal is required, under the terms of the Authority Approvals, including the Planning Approval, to comply with, carry out and fulfil;

(iii) in respect of any:

A. Authority Approvals which are to be obtained by the Principal after the date of this Contract; or

B. conditions and requirements of Authority Approvals which pursuant to Schedule 4 are to be satisfied or fulfilled by the Principal,

provide the Principal with such reasonable assistance as may be reasonably required by the Principal to enable the Principal to obtain the Authority Approvals or satisfy or fulfil the conditions and requirements.

(iv) for the purpose of obtaining all Authority Approvals as required by clause 2.3(b)(i), prepare all associated studies and reports required because of the design of the Works or Temporary Works proposed by the Contractor; and

(v) as a condition precedent to Completion of the Works or a Portion, ensure that it has:

A. obtained all Authority Approvals it is required to obtain under this Contract;

B. complied with, carried out and fulfilled all conditions and requirements of all Authority Approvals it is required to comply with, carry out and fulfil under this Contract;

C. without limiting clauses 2.3(b)(v)A and 2.3(b)(v)B, complied with, carried out and fulfilled all conditions and requirements of the Planning Approval which it is required to comply with, carry out and fulfil (including obtaining the approval of any person for anything) under this Contract; and

D. unless it is included in Schedule 7 as an Authority Approval which the Principal will obtain, obtained and supplied to the Principal's Representative certification that the Works, as designed and built, comply with the requirements of the Building Code of Australia to the extent applicable, including for the avoidance of doubt any Authority Approvals, conditions or requirements which must be obtained, carried out or fulfilled to
enable the Principal to occupy and use the Works or Portion for its intended purpose.

(c) Where there is a Change in Law:

(i) if either the Principal or the Contractor wishes this clause 2.3(c)(i) to apply, then that party must, within 14 days of the Change in Law, give a written notice to the other and the Principal's Representative stating that clause 2.3(c)(i) applies and containing details of the Change in Law;

(ii) if such a notice is given the Principal's Representative will determine:

A. where the Change in Law decreases the Contractor's costs of carrying out the Contractor's Activities in compliance with the Change in Law, a reasonable amount as the amount of the decrease; or

B. where the Change in Law increases the Contractor's costs of carrying out the Contractor's Activities in compliance with the Change in Law, the amount of the increased costs reasonably incurred by the Contractor on the basis that the Contractor took all reasonable steps to mitigate those increased costs, and the Contract Sum will be increased or decreased by that amount; and

(iii) the Contractor must comply with the Change in Law.

(d) If:

(i) a requirement of an Authority Approval obtained or issued or which otherwise takes effect after the date of this Contract; or

(ii) a change in an Authority Approval which is in existence as at the date of this Contract, occurs after the date of this Contract (other than a change arising from or in connection with an act or omission of the Contractor), necessitates a Variation to the Works, the Contractor must:

(iii) if the Authority Approval was obtained by the Principal, within 14 days of the date on which the Contractor becomes aware or ought reasonably to have become aware of the new Authority Approval or change taking effect; or

(iv) otherwise within 14 days of the new Authority Approval or change taking effect,

notify the Principal's Representative in writing with detailed particulars of the reason why the new Authority Approval or change necessitates a Variation to the Works. If the Contractor gives such a notice and the new Authority Approval or change does not necessitate a Variation to the Works the Principal's Representative will direct a Variation under clause 6.2(a) after which relevant adjustments will be made under clause 6.4.

(e) Other than as set out in clause 2.3(d), the 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:

(i) an Authority Approval obtained or issued or which otherwise takes effect after the date of this Contract; or

(ii) a change in an Authority Approval after the date of this Contract.
Without limiting the Contractor's obligations under any other clause of the Contract, insofar as the Contractor, in carrying out the Contractor's Activities, is:

(i) 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;

(ii) a person conducting a business or undertaking that manufactures plant, substances or structures to whom section 23 of the Work Health and Safety Act 2011 (NSW) applies;

(iii) a person conducting a business or undertaking that imports plant, substances or structures to whom section 24 of the Work Health and Safety Act 2011 (NSW) applies;

(iv) a person conducting a business or undertaking that supplies plant, substances or structures to whom section 25 of the Work Health and Safety Act 2011 (NSW) applies; or

(v) a person conducting a business or undertaking that installs, constructs or commissions plant or structures to whom section 26 of the Work Health and Safety Act 2011 (NSW) applies,

the Contractor shall comply with the applicable obligations under the WHS Legislation.

2.4 Services

The Contractor must:

(a) obtain and pay for any Service it needs to perform its obligations under this Contract;

(b) relocate, remove, modify, support, reinstate and provide all Services necessary for the Contractor to comply with its obligations under this Contract;

(c) subject to clause 3.5, assume the risk of the existence, location, condition and availability of all Services required for the execution of the Contractor's Activities;

(d) provide and maintain all signage, line marking, flagmen, barriers and other road traffic devices needed by the Contractor to comply with its obligations under this Contract, including any such devices reasonably required by the Principal's Representative;

(e) despite any other provision in the Contract to the contrary, ensure that all Services or facilities whatsoever on or adjacent to or affecting the Site, or affected by the Contractor's Activities, are not interfered with or interrupted during normal operating hours, by reason of the performance of the Contractor's Activities; and

(f) indemnify the Principal against any claim, damages, expense, costs, loss, liability, fine or penalty the Principal suffers or incurs arising out of or in any way in connection with any disruption to any Service arising out of or in any way in connection with the Contractor's Activities, provided that the Contractor's liability to indemnify the Principal will be reduced proportionally to the extent that an act or omission of the Principal, an Other Contractor or an agent of the Principal may have contributed to the claim, damages, expense, costs, loss, liability, fine or penalty.
2.5 Crown Building Work

(a) The Contractor must, in relation to any part of the Works that is a Crown Building Work, certify (on behalf of the Principal) as required by section 109R of the Environmental Planning and Assessment Act 1979 (NSW).

(b) Any certification under clause 2.5(a) will not lessen or otherwise affect:
   (i) the Contractor's other liabilities or responsibilities under this Contract or otherwise according to law; or
   (ii) the Principal's rights against the Contractor, whether under this Contract or otherwise according to law.

2.6 Unconditional Undertakings and Parent Company Guarantee

(a) Without limiting clause 2.6(d), the unconditional undertakings to be provided under this clause are for the purpose of ensuring the due and proper performance by the Contractor of its obligations under this Contract.

(b) The Contractor must give the Principal within 10 days of the date of this Contract, two unconditional undertakings:
   (i) each for 2.5% of the Original Contract Price;
   (ii) each in the form of Schedule 8;
   (iii) each in favour of the Principal;
   (iv) each issued by an Institution approved by the Principal; and
   (v) where required by Law, duly stamped.

(c) Subject to its rights to have recourse to the unconditional undertakings and subject to clauses 2.6(g), 14.9 and 14.12, the Principal must:
   (i) within 28 days after the Date of Completion of the Works or the last Portion to reach Completion, release so much of the unconditional undertakings provided by the Contractor under clause 2.6(b) as may be then held by the Principal, so that it then holds 2.5% of the Original Contract Price; and
   (ii) within 28 days after the expiration of all the Defects Rectification Periods (excluding any extensions under clause 8.6), release so much of the unconditional undertakings provided by the Contractor under clause 2.6(b) as may be then held by the Principal, to such amount as the Principal's Representative determines to be reasonable, having regard to the work to which the remaining Defects Rectification Periods (including any extensions under clause 8.6) apply; and
   (iii) within 28 days after the Date of Final Completion, release the balance of the unconditional undertakings provided by the Contractor under clause 2.6(b) as may be then held by the Principal.

(d) The Principal:
   (i) may have recourse to any unconditional undertaking provided under this clause 2.6 at any time;
   (ii) is not obliged to pay the Contractor interest on:
      A. any unconditional undertaking; or
B. the proceeds of any unconditional undertaking if it is converted into cash; and

(iii) does not hold the proceeds referred to in clause 2.6(d)(ii)b on trust for the Contractor.

(e) The Contractor must not take any steps to injunct or otherwise restrain:

(i) any issuer of any unconditional undertaking provided under this clause 2.6 from paying the Principal pursuant to the unconditional undertaking;

(ii) the Principal from taking any steps for the purposes of making a demand under any unconditional undertaking provided under this clause 2.6 or receiving payment under any such unconditional undertaking; or

(iii) the Principal using the money received under any unconditional undertaking provided under this clause 2.6.

(f) The Contractor must within 10 days of the date of this Contract give the Principal a guarantee duly executed by the person referred to in Schedule 1 in favour of the Principal in the form of the Parent Company Guarantee and which is, where required, duly stamped.

(g) Despite any other provision of this Contract to the contrary, where this Contract may otherwise require the Principal to release an unconditional undertaking or this Contract is terminated by the Principal either pursuant to clause 14 or by reason of the Contractor repudiating this Contract, the Principal may continue to hold the unconditional undertaking after the date for its release or the termination of this Contract to the extent of any claim which the Principal may have against the Contractor arising out of, or in connection with, the Contract or the Contractor's Activities whether for damages (including liquidated damages) or otherwise.

2.7 Long Service Leave Levy

Where the Contractor is specified in Schedule 1 as being responsible for payment of the long service leave levy, then, before commencing any construction work under this Contract (including any construction of Temporary Works), the Contractor must:

(a) pay to the Building and Construction Industry Long Service Payments Corporation or that body's agent all amounts payable for the long service levy in respect of the Contractor's Activities under the Building and Construction Industry Long Service Payments Act 1986 (NSW); and

(b) produce to the Principal's Representative the documents evidencing payment of the amounts referred to in clause 2.7(a).

2.8 Co-operation with Interface Contractors

The Contractor:

(a) acknowledges that:

(i) the Contractor's Activities interface with the Interface Work; and

(ii) Interface Contractors will be executing work on parts of the Site, or adjacent to the Site, at the same time as the Contractor is performing the Contractor's Activities;
must at all times:

(i) permit Interface Contractors to execute the Interface Work on the applicable parts of the Site or on any adjacent property to the Site:
   A. at the same time as the Contractor is performing the Contractor's Activities; and
   B. at the times agreed with the Interface Contractor, or failing agreement at the times determined by the Principal's Representative,

and for this purpose ensure they have safe, clean and clear access to those parts of the Site, or property adjacent to the Site, required by them for the purpose of carrying out their work;

(ii) protect the Works, Temporary Works and other improvements on the Site from accidental damage by Interface Contractors;

(iii) co-operate with Interface Contractors, and do everything reasonably necessary to facilitate the execution of work by Interface Contractors, including providing Interface Contractors with such assistance as may be directed by the Principal's Representative;

(iv) carefully coordinate and interface the Contractor's Activities with the work carried out or to be carried out by Interface Contractors, and for this purpose:
   A. make proper allowance in all programs for the work of Interface Contractors;
   B. review all programs provided by Interface Contractors and confirm that they adequately allow for the Contractor's Activities and the interfaces of the Interface Work with the Contractor's Activities;
   C. monitor the progress of the Interface Contractors' work;
   D. notify the Principal's Representative of any interface or sequence of activities that may affect the commencement, progress or Completion of the Works or any Portion; and

(c) provide the Interface Contractors with sufficient information about the current and expected Contractor's Activities to assist them to coordinate their work with the Contractor's Activities;

(i) perform the Contractor's Activities so as to minimise any interference with or disruption or delay to the work of Interface Contractors; and

(ii) be responsible for coordinating the Contractor's Activities, including work sequencing, construction methods, safety and industrial relations matters with those affecting, and influenced by, Interface Contractors' personnel and work, including providing to the Principal's Representative copies of working method statements for those parts of the Works or Temporary Works which are adjacent to or interface with any Interface Work, at least 15 Business Days prior to commencing the work described in the work method statement.
2.9 Incident Management Reporting

(a) The Contractor must identify clear guidelines for responding to any Incident arising from the performance of the Contractor's Activities and establish procedures to ensure that the Principal's Representative is promptly notified of any Incident in accordance with the TfNSW Standard Requirements.

(b) Should an Incident occur which is reportable under any relevant Law, the Contractor must immediately report the Incident to the relevant Authority and the Principal's Representative in accordance with the TfNSW Standard Requirements.

(c) In relation to any environmental or safety Incident involving Hazardous Material, Contamination, Pollution or other waste that arises during the performance of the Contractor's Activities, the Contractor must:
   
   (i) at its own cost promptly take all appropriate action to manage and dispose of all Hazardous Material, Contamination, Pollution or other waste arising from the Incident;
   
   (ii) comply with all relevant Laws including any requirements to give notice to a relevant Authority; and
   
   (iii) at its own cost manage the Incident in a manner which minimises damage to the reputation of the Principal including complying with any reasonable request of the Principal's Representative.

(d) If the Contractor causes or contributes to the occurrence of an Incident and fails to ensure that the Principal is promptly notified, the Principal, may without prejudice to any other right it has under this Contract, immediately terminate the Contract by written notice to the Contractor.

(e) Without prejudice to the Principal's other rights under this Contract, if the Principal forms the reasonable view, upon the occurrence of an Incident, that the Contractor is not taking adequate measures to manage the Incident or control or eliminate the adverse impact or the risk of such an Incident arising in the future, the Principal may (but has no obligation) to take such actions as it deems necessary to overcome and alleviate the cause and consequences of any Incident. If the Principal takes any such action it will be entitled to recover its reasonable costs and expenses from the Contractor as a debt due from the Contractor to the Principal.

(f) Without prejudice to the Principal's other rights under this Contract, the Principal reserves the right to issue an immediate stop work order in the event of any Incident involving:
   
   (i) a significant spill of Contamination;
   
   (ii) any accident or release of Hazardous Materials which it believes may pose a danger to health, life or property; or
   
   (iii) any actual damage or harm to the Environment or a significant risk of harm to the Environment.

The Principal will not be liable upon any Claim by the Contractor for any cost, expense or penalty resulting from any work stoppage due to a stop work order or for the failure to issue a stop work order.
(g) The Principal will be entitled to recover its reasonable costs and expenses for any action the Principal's Representative deems necessary to avoid the issue of any stop work order in relation to the Contractor's or its agent's acts or omissions in performing the Contractor's Activities as a debt due from the Contractor to the Principal.

2.10 WHS Legislation and Principal Contractor

(a) In this clause 2.10 the terms 'construction project', 'construction work', 'principal contractor' and 'workplace' have the same meanings assigned to those terms under the WHS Legislation:

For the purpose of the WHS Legislation and the Contract, the Works and any Other Contractor Work is taken to be part of the same 'construction project,

(b) If the Contractor is specified in Schedule 1 as being the principal contractor:
(i) the Principal engages the Contractor as the principal contractor in respect of the Contractor's Activities and all Other Contractor Work carried out on the Site;
(ii) the Principal authorises the Contractor to have management and control of each workplace at which the Contractor's Activities and the Other Contractor Work is to be carried out and to discharge the duties of a principal contractor under the WHS Legislation; and
(iii) the Contractor accepts the engagement as principal contractor and agrees to discharge the duties imposed on a principal contractor by the WHS Legislation.

(c) To the extent not prohibited by law, the Contractor must indemnify the Principal against any damage, expense, loss or liability suffered or incurred by the Principal arising out of or in connection with the Contractor's failure to discharge the duties imposed on a principal contractor by the WHS Legislation that the Contractor is required to discharge in accordance with this clause 2.10.

(d) Where the Contractor is not specified in Schedule 1 to be the principal contractor, the Contractor:
(i) acknowledges that the person who is specified in Schedule 1 is the principal contractor in respect of all construction work carried out by or on behalf of the Principal on that Site during the period during which that person is specified as being the principal contractor in Schedule 1; and
(ii) must comply with any exercise by the person referred to in subparagraph (i) of such authority as is necessary to enable that person to discharge the responsibilities imposed on a principal contractor by the WHS Legislation.

3. The Site and location of the Works

3.1 Access

(a) The Contractor acknowledges and agrees that access to the Site will be provided progressively to the Contractor as set out in Schedule 1.

(b) Subject to clause 3.1(c) and any other provision of this Contract affecting access, the Principal must:
(i) give, or ensure the Contractor has, access to the Site by the dates set out in Schedule 1 (and if a period is specified in relation to a part of the Site, then by the last day of that period); and

(ii) once access to a part of the Site is provided to the Contractor, thereafter continue to allow, or ensure that the Contractor is continued to be allowed, access to that part of the Site.

(c) The Contractor acknowledges and agrees that:

(i) access to the Site or any part thereof will only confer on the Contractor a right to such management and control as is necessary to enable the Contractor to execute the Contractor's Activities and to discharge its responsibilities under the WHS Legislation, including to discharge its responsibilities as principal contractor where it has been appointed as principal contractor;

(ii) the Principal is not obliged to give the Contractor access to any part of the Site until the Contractor has:

A. complied with clause 2.6(b) of this Contract;

B. effected the insurance policies required to be effected by the Contractor under clauses 13.4, 13.4A and 13.8;

C. complied with clauses 13.4, 13.4A and 13.8 with respect to each insurance policy; and

D. submitted the Contractor's Environmental Management Plan and Project WHS Management Plan required by the TfNSW Standard Requirements to the Principal's Representative under clause 9.8 and the Principal's Representative has not rejected the proposed Contractor's Environmental Management Plan or Project WHS Management Plan within 15 Business Days after such submission in accordance with clause 9.8(c).

E. complied with the matters set out in Schedule 1;

(iii) the Principal is not obliged to provide, and the Contractor may not be given, exclusive access to the Site;

(iv) the Principal is not obliged to carry out any work or provide any facilities to the Contractor which may be necessary to enable the Contractor to obtain access to the Site or carry out the Contractor's Activities; and

(v) the Principal and others will engage Other Contractors to work upon or in the vicinity of the Site at the same time as the Contractor.

(d) The Principal's obligations under clause 3.1(b) in respect of each part of the Site will cease upon the issue of a Notice of Completion in respect of the last Portion occupying that part of the Site, except to the extent required to allow the Contractor to comply with its obligations during the Defects Rectification Periods.

(e) Failure by the Principal to give access as required by clause 3.1(b) will not be a breach of this Contract but will entitle the Contractor to:

(i) an extension of time to any relevant Date for Completion under clause 10.10 if the requirements of that clause are satisfied; and

(ii) have the Contract Sum increased by the costs reasonably incurred by the Contractor as a direct result of the failure of the Principal to give
access as required by clause 3.1(b) as determined by the Principal's Representative who must, where they are applicable, use the rates and prices in Schedule 1.

(f) The Contractor's entitlement under clause 3.1(e)(ii) will be its only right to payment of money arising out of or in any way in connection with the Principal's failure to give access as required by clauses 3.1(a), 3.1(b)(i) or 3.1(b)(ii).

3.2 Temporary Works

The Contractor must carry out all Temporary Works required to execute the Contractor's Activities and to the extent that the Temporary Works are designed by the Contractor they will be fit for their intended purpose.

3.3 Management and Control of the Site

At all times after being given access to the Site or a part of the Site under clause 3.1 and before the Date of Completion of the Portion for which the Site or the relevant part of the Site is provided to the Contractor, the Contractor:

(a) without limiting any right of the Principal or the Principal's Representative under this Contract, and subject to clause 2.10, will be responsible for the management and control of the Site;

(b) must control access to, and the security and maintenance of, the Site or that part, except where the Principal's Representative advises otherwise;

(c) must ensure public safety on and adjacent to the Site or that part;

(d) must provide for the continuous safe passage of the public, road and railway system users on existing roads, access ways and Rail Tracks affected by the Contractor's Activities in accordance with this Contract;

(e) must, subject to clauses 3.1 and 3.10 and the TfNSW Standard Requirements, and any relevant Law, limit access to the Site to its employees, Subcontractors and their employees and Subcontractors, and those with a legitimate interest in being on the Site as part of the Contractor's Activities; and

(f) must not impede access to private property.

3.4 Land in Addition to the Site

The Contractor must:

(a) procure for itself and at its own cost the occupation or use of or relevant rights over any land or buildings in addition to the Site, including any land owned by RailCorp, which is necessary or which it may require for the purposes of carrying out the Contractor's Activities;

(b) at its own cost carry out all activities and procure all Services necessary to make the land or buildings suitable for use by the Contractor;

(c) as a condition precedent to Completion of the Works or any Portion:

(i) rehabilitate any land of the kind referred to in paragraph (a) in accordance with the requirements of all relevant Authorities and other relevant persons; and

(ii) unless not required by the Principal's Representative, provide to the Principal's Representative a properly executed certificate in the form of
Schedule 13 or a release on terms otherwise satisfactory to the Principal's Representative from all claims or demands (whether for damages or otherwise howsoever arising) from the owner or occupier of, and from other persons having an interest in, such land; and

(d) indemnify the Principal against any damage, expense, loss, cost or liability suffered or incurred by the Principal arising out of or in any way in connection with a claim by the owner or occupier of, or any other person having any interest in, land of the kind referred to in paragraph (a), provided that the Contractor's liability to indemnify the Principal will be reduced proportionally to the extent that an act or omission of the Principal, an Other Contractor or an agent of the Principal may have contributed to the damage, expense, loss, cost or liability.

3.5 Latent Conditions

(a) Subject to the last paragraph of this clause 3.5(a), Latent Conditions are:

(i) physical conditions on the Site or its surroundings (including artificial things) which differ materially from the physical conditions which should reasonably have been anticipated by the Contractor at the time of the Contractor's Tender if the Contractor had:
   A. examined all information made available in writing by the Principal to the Contractor for the purpose of tendering (including the Reports); and
   B. examined all information (including the Reports) relevant to the risks, contingencies and other circumstances having an effect on the Tender and obtainable by the making of reasonable enquiries; and
   C. inspected the Site and its surroundings; and

(ii) any Services on the Site which are:
   A. not identified in the Reports;
   B. not capable of otherwise having been anticipated by the Contractor at the time of the Contractor's Tender if it had done the things referred to in Clause 3.5(a)(i) A, B and C;
   C. discovered only after the Contractor has undertaken potholing of the Services identified in the Works Brief, including drawings and specifications, or Reports to confirm their exact location.

(b) Latent Conditions exclude:

(i) weather conditions or physical conditions which are a consequence of weather conditions at the Site; and

(ii) Hazardous Material and Contamination.

(c) If during the execution of the Contractor's Activities, the Contractor becomes aware of a Latent Condition the Contractor must forthwith and where possible before the physical conditions are disturbed, give written notice thereof to the Principal's Representative.

The Contractor must provide in that notice to the Principal's Representative a statement specifying:
(i) the conditions encountered and in what respects they differ materially
from what the Contractor should reasonably have expected;

(ii) the additional work and additional resources which the Contractor
estimates to be necessary to deal with the conditions;

(iii) the time the Contractor anticipates will be required to deal with the
conditions and the expected delay in achieving Completion;

(iv) the Contractor's estimate of the cost of the measures necessary to deal
with the conditions; and

(v) other details reasonably required by the Principal's Representative.

(d) Delay caused by a Latent Condition may justify an extension of time under
clause 10. If a Latent Condition causes the Contractor to:

(i) carry out additional work;

(ii) use additional Construction Plant; or

(iii) incur extra cost (excluding the costs of any delay or disruption arising out
of or in connection with the Latent Condition or the additional work
required to deal with the Latent Condition),

which the Contractor could not reasonably have anticipated at the time of
tendering, a valuation will be made under clause 6.4 as if the work were a
Variation.

(e) In making a valuation pursuant to clause 3.5(d) regard will not be had to the value
of additional work carried out, additional Construction Plant used or extra cost
incurred more than 14 days before the date on which the Contractor gives the
written notice required by the first paragraph of clause 3.5(c).

3.6 Information Documents and Materials

(a) Whether or not any Information Documents or Materials or any part thereof form
an Exhibit to this Contract, the Contractor acknowledges that:

(i) the Information Documents or Materials or part thereof do not form part
of this Contract and that clause 3.6(c) applies to the Information
Documents or Materials or part thereof; and

(ii) where Information Documents or Materials or any part thereof form an
Exhibit to this Contract, they do so only for the purposes of identification
of that document or part thereof.

(b) Without limiting clause 3.6(c):

(i) the Contractor acknowledges that the Principal does not warrant,
guarantee, assume any duty of care or other responsibility for or make
any representation about the accuracy, adequacy, suitability or
completeness of the Information Documents and Materials, and the
Information Documents and Materials do not form part of this Contract;

(ii) the Principal will not be liable upon any Claim by the Contractor arising
out of or in any way in connection with:

A. the provision of, or the purported reliance upon, or use of the
Information Documents and Materials by the Contractor or
any other person to whom the Information Documents and
Materials are disclosed; or
The Contractor:

(i) warrants that it did not in any way rely upon:

A. any information, data, representation, statement or document made by, or provided to the Contractor, by the Principal or anyone on behalf of the Principal or any other information, data, representation, statement or document for which the Principal is responsible or may be responsible whether or not obtained from the Principal or anyone on behalf of the Principal; or

B. the accuracy, adequacy, suitability or completeness of such information, data, representation, statement or document, for the purposes of entering into this Contract except to the extent that any such information, statement or document forms part of this Contract;

(ii) warrants that it enters into this Contract based on its own investigations, interpretations, deductions, information and determinations; and

(iii) acknowledges that it is aware that the Principal has entered into this Contract relying upon the warranties, acknowledgements and agreements in clauses 3.6(c)(i) and 3.6(c)(ii).

The Contractor releases and indemnifies the Principal from and against:

(i) any claim against them by, or liability of them to, any person; or

(ii) (without being limited by clause 3.6(d)(i)) any costs, expenses, losses or damages suffered or incurred by them, arising out of or in any way in connection with:

(iii) the provision of, or the purported reliance upon, or use of the Information Documents and Materials, as referred to in clauses 3.6(b) and 3.6(c)(i), by the Contractor or any other person to whom the Information Documents and Materials are disclosed or a failure by the Principal to provide any information, data or documents to the Contractor (other than any information, data or documents which the Principal is required to provide to the Contractor by the terms of this Contract);

(iv) any breach by the Contractor of this clause 3.6; or

(v) the Information Documents and Materials being relied upon or otherwise used in the preparation of any information or document, including any information or document which is “misleading or deceptive” or “false or misleading” (within the meaning of those terms in sections 18 and 29 (respectively) of the Australian Consumer Law.

3.7 Hazardous Material

(a) The Contractor acknowledges that it is aware that there may be Hazardous Material in structures which are located on, in or under the Site and will rely entirely on its own enquiries and investigations.
The Principal does not make any representation or warranty (express or implied) as to the nature or extent of any Hazardous Materials that may be present in structures on, in or under the Site.

The Contractor must provide for the management of any Hazardous Material in any structures in the Contractor's Environmental Management Plan and Project WHS Management Plan and take all measures required to protect workers and others from Hazardous Material in accordance with Law, the WHS Guidelines and the TNSW Standard Requirements.

The Contractor must carry out a Hazardous Materials audit prior to commencing any demolition work or construction work on structures which could potentially contain Hazardous Materials and provide a copy of the audit report to the Principal's Representative.

Without limiting any obligation of the Contractor to comply with the Authority Approvals, the Contractor must submit a notice for the review of the Principal's Representative under clause 9.8 containing details of the works necessary to remove and dispose of any Hazardous Material identified in accordance with clause 3.7(d).

After the Principal's Representative has had the period referred to in clause 9.8(c)(ii) (or such shorter period as the Principal's Representative may advise to the Contractor in writing) and has not rejected the Contractor's notice under clause 3.7(e) the Contractor must comply with the notice and remove and dispose of any Hazardous Material in structures on, in or under the Site in accordance with relevant Laws, Authority Approvals and any direction of a relevant Authority where applicable.

The Contractor acknowledges and agrees that:

(i) subject to clause 3.7(g)(ii), the Principal will be liable to pay the Contractor an amount for removing and disposing of any Hazardous Material in accordance with clause 3.7(f), with the valuation of the amount being made under clause 6.4 as if the removal and disposal work was a Variation;

(ii) the Contractor will not be entitled to any increase in the Contract Sum or to make any Claim for payment:

A. for the costs of complying with this clause 3.7, other than for the amount referred to in clause 3.7(g)(i);

B. in respect of carrying out the Hazardous Material audit required by clause 3.7(d);

C. for any costs incurred arising out of or in connection with any delay or disruption to the Contractor's Activities resulting from the presence of any Hazardous Material; or

D. in respect of any investigation of structures on the Extra Land and any removal and disposal of Hazardous Material from such structures; and

(iii) the Contractor will be entitled to claim for an extension of time under clause 10.7(a) in respect of any delay arising out of or in connection with the discovery of Hazardous Material or the discharge of the obligations under this clause 3.7.
3.8 Things of Value Found

All valuable minerals, fossils, coins, articles or objects of value or antiquity, and other remains or things of geological, archaeological, anthropological or other special interest found on the Site are, and will as between the Contractor and the Principal be and remain, the property of the Principal.

The Contractor must:
(a) immediately notify the Principal's Representative if any such thing is found;
(b) ensure that it is protected and not lost, removed, disturbed or damaged; and
(c) comply with any directions of the Principal's Representative in relation to the thing.

The Contract Sum will be increased by the extra costs reasonably incurred by the Contractor in complying with the Principal's Representative's directions, as determined by the Principal's Representative.

3.9 Contamination

(a) The Contractor acknowledges that it is aware that there may be Contamination on, in, under or migrating from the Site including in, areas under Tracks, surface soils generally and locations which have been filled. The Contractor must provide for the management of any Contamination that may be present on, in, under or migrating from the Site in the Contractor's Environmental Management Plan and the Project WHS Management Plan.

(b) Without limiting clauses 2.3(a)(i) and 3.9(a), the Contractor must, if it considers necessary, undertake any investigation to delineate the nature and extent of any Contamination on, in, under or migrating from the Site prior to commencing any part of the Contractor's Activities on the Site in order to identify the steps necessary to deal with any Contamination as part of the Contractors Activities.

(c) Without limiting any obligation of the Contractor to comply with all Authority Approvals, the Contractor must:

(i) notify the Principal's Representative in writing within 5 Business Days of becoming aware of the existence of any Contamination on, in, under or migrating from the Site, and thereafter provide the Principal's Representative with such further written details as the Principal's Representative may request including a copy of any investigation report prepared pursuant to clause 3.9(b);

(ii) promptly after providing a notice under clause 3.9(c)(i), submit a notice for the review of the Principal's Representative under clause 9.8 containing:

A. details of the steps which the Contractor proposes to take to:

1) investigate, remediate, dispose of, manage, monitor, contain or otherwise deal with the Contamination so that the Site is remediated to a standard suitable for the proposed use of the Site ("Remediation Steps"). For the avoidance of doubt, the Contractor is permitted to incorporate Remediation Steps to address the Contamination which was present on, in under or migrating off the Site prior to the date of this Contract into the Works.
where such incorporation is specified in the Works Brief;

2) unless the Principal's Representative directs otherwise, incorporate the Contamination into the Works in preference to its disposal off site where this is technically and economically feasible;

3) dispose of Contamination off-site to a licensed waste disposal facility in accordance with clause 3.13 if:
   a) this more economically viable than remediating and or otherwise dealing with the Contamination in situ; or
   b) the Principal's Representative has directed the Contractor to do so; and

4) report to all relevant Authorities if required to do so, in each case in accordance with any relevant Law, Authority Approvals and any written direction from a relevant Authority;

B. the Contractor's estimate of any adjustment which would be made under paragraph (e) to comply with the Remediation Steps and where the estimate is not a fixed lump sum the proposed administration and verification measures to evidence the cost of the Remediation Steps; and

C. a plan documenting the Remediation Steps determined pursuant to the criteria in clause 3.9(c)(ii)A ("Remediation Action Plan");

(iii) only after the Principal's Representative has had the period referred to in clause 9.8(c)(ii) (or such shorter period as the Principal's Representative may advise to the Contractor in writing) and has not rejected the Contractor's notice under clause 3.9(c)(ii), implement the Remediation Action Plan in accordance with relevant Laws, Authority Approvals and any direction of a relevant Authority where applicable; and

(iv) in dealing with any Contamination:
   A. take all measures necessary to protect workers and others in accordance with Law and the WHS Guidelines;
   B. take all reasonable steps to ensure that the Contamination is quarantined from other in-situ or excavated materials so as to prevent cross-contamination; and
   C. provide waste classification reports and documents demonstrating that cross-contamination has not occurred.

(d) The Contractor must indemnify the Principal against any claim, damage, expense, loss, liability, fine or penalty suffered or incurred by the Principal arising out of or in any way in connection with any failure by the Contractor to comply with any obligation under this clause 3.9, provided that the Contractor's liability to indemnify the Principal will be reduced proportionally to the extent that an act or omission of the Principal, Other Contractors or an agent of the Principal may have contributed to the claim, damage, expense, loss, liability, fine or penalty.
(e) The Contractor acknowledges and agrees that:

(i) subject to clause 3.9(e)(ii), the Principal will be liable to pay the Contractor an amount for implementing the Remediation Action Plan in accordance with clause 3.9(c)(iii), with the valuation of the amount being made under clause 6.4 as if the implementation work was a Variation;

(ii) the Contractor will not be entitled to any increase in the Contract Sum or to make any other Claim for payment:

A. for complying with this clause 3.9, other than for the amount referred to in clause 3.9(e)(i);

B. in respect of carrying out investigations of the Site to determine the presence and extent of any Contamination present on, in, under or migrating from the Site;

C. in respect of any costs incurred in the management, handling and disposal of the following types of General Solid Waste (non-putrescible) as defined in the Department of Environment, Climate Change and Water NSW Waste Classification Guidelines dated December 2009:
   1) glass, plastic, rubber, plasterboard, ceramics, bricks, concrete or metal;
   2) paper and cardboard;
   3) household waste from municipal clean ups that does not contain food waste;
   4) grit, sediment, litter and gross pollutants from stormwater treatment devices that does not contain free liquids;
   5) building and demolition waste;
   6) green waste;
   7) virgin excavated natural material; and
   8) wood waste;

D. for any costs incurred arising out of or in connection with any delay or disruption to the Contractor’s Activities resulting from the presence of any Contamination on, in, under or migrating from the Site including arising out of or in connection with complying with its obligations under clauses 3.9(b), 3.9(c)(i) and 3.9(c)(ii);

E. for managing the remediation works on the Site; or

F. in respect of any investigation or remediation of Extra Land; and

(iii) the Contractor will be entitled to claim for an extension of time in respect of any delay arising out of or in connection with the discovery of Contamination or the discharge of its obligations under this clause 3.9.

3.10 Principal’s Right to Access and Inspect

Subject to clause 3.14, the Contractor must:

(a) minimise disruption or inconvenience to:
(i) the Principal, occupiers (including railway system or rail passengers and other users), tenants and potential tenants of the Site or a part thereof in their occupation or use of, or attendance upon, any part of the Site, including any occupation or use of the Works, a Portion or a part thereof under clause 12.6; and

(ii) others having a right of access to the Site; and

(b) at all times:

(i) give the Principal’s Representative, the Principal and any person authorised by either the Principal’s Representative or the Principal access to:

A. the Works;
B. the Site; or
C. any areas off-Site where the Contractor’s Activities are being carried out,

including unobstructed vehicular access through the Site; and

(ii) provide the Principal and the Principal’s Representative with every reasonable facility necessary for the inspection, including reviewing, testing, surveillance and examination, of the Contractor’s Activities, including the Contractor’s compliance with the Authority Approvals.

3.11 Works to be constructed within Site

The Contractor must ensure that the Works are constructed within the relevant boundaries of the Site stipulated in Schedule 1.

3.12 Condition Surveys

The Principal has undertaken a condition survey of the properties listed in Schedule 1. The Contractor may undertake further condition surveys of these properties.

The Contractor must identify and prepare a condition survey of all property that could be affected or damaged by the Contractor’s Activities as required by the Planning Approval, using suitably skilled, qualified and experienced personnel or Subcontractors.

The Contractor must prepare this condition survey a minimum of two weeks prior to commencing any work on the Site, or on any other land which is necessary for performing the Contractor’s Activities or undertaking the Works, where that work could damage property on or off the Site.

3.13 Waste Disposal

(a) The Contractor must remove from the Site and dispose of any Hazardous Material, Contamination or other waste pursuant to its obligations under this Contract to a licensed waste facility in accordance with all relevant Law and Authority Approvals.

(b) The Contractor must ensure that the relevant party holds all relevant Authority Approvals which are necessary to desirable for the storage, treatment, transport and disposal of the Hazardous Material, Contamination or other waste from the Site and must procure and provide evidence of such Authority Approvals to the Principal’s Representative upon request.
The Contractor must ensure that its employees and agents, as applicable, are suitably trained in correct and safe methods of loading, unloading and handling any Hazardous Material, Contamination or other wastes and that they comply with all applicable Laws.

The Contractor must indemnify the Principal against any claim, damage, expense, loss, liability, fine or penalty suffered or incurred by the Principal arising out of or in any way in connection with any failure by the Contractor to comply with any obligation under this clause, provided that the Contractor's liability to indemnify the Principal will be reduced proportionally to the extent that an act or omission of the Principal, Other Contractors or an agent of the Principal may have contributed to the claim, damage, expense, loss, liability, fine or penalty.

3.14 Principal not in Control

The Contractor and Principal acknowledge that nothing in this Contract or the TfNSW Standard Requirements including the right to inspect pursuant to clause 3.10 or any audit by the Principal or the Principal's Representative at any time will be construed to mean or imply that:

(a) the Principal has any management or control over the Contractor's Activities or the Site; or

(b) the Principal has any responsibility for any act or omission by the Contractor or its Subcontractors or agents including compliance or non-compliance with any relevant Laws, Authority Approvals or the TfNSW Standard Requirements.

4. Compliance

4.1 Quality of Work

The Contractor must use the materials and standard of workmanship required by this Contract, and otherwise comply with this Contract in the execution of the Contractor's Activities. In the absence of any other requirement, the Contractor must use suitable new materials and ensure that all workmanship and materials are fit for their intended purpose.

4.2 TfNSW Standard Requirements

The Contractor must comply with the requirements of the TfNSW Standard Requirements.

4.3 Environmental Management

The Contractor must:

(a) hold and maintain an environmental management system which complies with the requirements of TfNSW Standard Requirements for so long as any Contractor's Activities are carried out;

(b) as part of the Contract Management Plan, document, implement and maintain a contract specific Contractor's Environmental Management Plan for the management of environmental matters in accordance with the TfNSW Standard Requirements;

(c) carry out the Contractor's Activities in accordance with the Contractor's Environmental Management Plan; and
supervise Subcontractor's activities and ensure that they are complying with all relevant Law, Authority Approvals and TfNSW Standard Requirements in relation to Environmental Management on the Site.

4.4 WHS Management

The Contactor must:

(a) hold and maintain an WHS management system for so long as any Contractor's Activities are carried out that complies with the WHS Guidelines and the TfNSW Standard Requirements;

(b) as part of the Contract Plan, develop, document and implement a contract specific Project WHS Management Plan in accordance with the WHS Guidelines and TfNSW Standard Requirements;

(c) carry out the Contractor's Activities in accordance with the Project WHS Management Plan;

(d) create a safe working environment for ensuring the safety of all authorised personnel on the Site and that no unauthorised individual gain access to the Site; and

(e) supervise any Subcontractor's activities and ensure that they are complying with all relevant Law, Authority Approvals and the TfNSW Standard Requirements in relation to the WHS management on the Site.

4.5 No Relief from Obligations

The Contractor will not be relieved from any of its liabilities or responsibilities under this Contract (including under clause 7.9 or otherwise according to law) nor will the rights of the Principal whether under this Contract or otherwise according to law be limited or otherwise affected, by:

(a) the implementation of, and compliance with, any management system or plan by the Contractor;

(b) compliance with the Contract Management Plan by the Contractor;

(c) any release, authorisation, approval or agreement by the Principal's Representative, or any other person acting on behalf of the Principal or the Principal's Representative, particularly those concerning or relating to the Contractor proceeding past any hold point or witness point identified in the Works Brief, the TfNSW Standard Requirements or otherwise directed by the Principal's Representative;

(d) any failure by the Principal, the Principal's Representative or any other person acting on behalf of the Principal or engaged by the Principal to detect any Defect, particularly whilst participating in any hold point or witness point procedure, including where such a failure is the result of a negligent act or omission; or

(e) any inspections arranged by the Principal's Representative under the TfNSW Standard Requirements or any related discussions between the Contractor's Representative and the Principal's Representative.
5. **Design and Design Documentation**

5.1 **Contractor's Design**

The Contractor:

(a) must:

(i) design the parts of the Works and the Temporary Works which the Contract requires it to design;

(ii) in preparing the Design Documentation comply with requirements of the Contract (including the TfNSW Standard Requirements); and

(b) warrants that:

(i) any Design Documentation it prepares will comply with the requirements of the Contract and will be fit for its intended purpose; and

(ii) to the extent they are designed by the Contractor, the Works and the Temporary Works will be fit for their intended purpose.

5.2 **Principal's Representative May Review**

(a) The Design Documentation must be submitted to the Principal's Representative. Clause 9.8 applies to all Design Documentation.

5.3 **Intellectual Property Rights**

(a) The Contractor must ensure that, whilst performing the Contractor's Activities, it does not infringe any patent, registered design, trade mark or name, copyright or other protected right.

(b) Copyright in any Design Documentation prepared by the Contractor under Clause 5.1(a)(i) is assigned to the Principal upon its creation. The Principal grants to the Contractor a licence to use such Design Documentation for the Contractor's Activities.

(c) The Contractor must indemnify the Principal against any claims against, or cost, losses or damages suffered or incurred by the Principal, arising out of or in any way in connection with, any actual or alleged infringement of any patent, registered design, trade mark or name, copyright or other protected right.

5.4 **Moral Rights**

The Contractor:

(a) must ensure that it does not infringe any moral right of any author of an artistic work in carrying out the Contractor's Activities;

(b) must ensure that it obtains irrevocable written consent, for the benefit of the Principal and the Contractor, from the author of any artistic work to be incorporated into, or used during the design or construction of, the Works, including any necessary consents from its employees and any consultants engaged by it, to:

(i) any non attribution or false attribution of the artistic work; and
(ii) any repairs to, maintenance and servicing of, additions, refurbishment or alterations to, changes, relocation, destruction or replacement of the artistic work or the Works; and

(c) indemnifies the Principal against any claims against, or costs, losses or damages suffered of incurred by the Principal, arising out of, or in any way in connection with, any actual or alleged infringement of any author's moral rights arising out of or in any way in connection with the Works, or arising in the future out of or in connection with any change, alteration, relocation or destruction of the Works.

This clause 5.4 will survive the termination of the Contract and the completion of the Works.

The terms "artistic work" and "attribution" have the meaning given to them in the Copyright Act 1968 (Cth).

6. Variations

6.1 Proposed Variations

At any time prior to the Date of Completion of the Works (but without limiting clauses 7.9 and 13.3) the Principal's Representative may issue a document titled "Variation Proposal Request" to the Contractor, which will set out details of a proposed Variation that the Principal is considering.

Within 10 Business Days of the receipt of a "Variation Proposal Request", or at such other time as is approved by the Principal's Representative, the Contractor must provide the Principal's Representative with a written notice in which the Contractor sets out such details as may be reasonably required by the Principal's Representative:

The Principal will not be obliged to proceed with any proposed Variation that is the subject of a "Variation Proposal Request".

6.2 Variation Orders

(a) Whether or not the Principal's Representative has issued a "Variation Proposal Request" under clause 6.1, the Principal's Representative may at any time prior to the Date of Completion of the Works (but without limiting clauses 7.9 and 13.3) direct the Contractor to carry out a Variation by issuing a written document titled "Variation Order", in which the Principal's Representative will state one of the following:

(i) the proposed adjustments to the Contract Sum and the Payment Breakdown Schedule set out in the Contractor's notice under clause 6.1 are agreed and the Contract Sum and Payment Breakdown Schedule will be adjusted accordingly; or

(ii) any adjustment to the Contract Sum will be determined under clause 6.4(b); or

(iii) the Variation is to be carried out as daywork and any adjustment to the Contract Sum will be determined under clause 6.7.

(b) There is no limitation on the power of the Principal's Representative to direct a Variation, and no Variation or direction to carry out a Variation will invalidate this Contract.

(c) The Contractor must comply with a "Variation Order" irrespective of the:
(i) nature, extent or value of the work the subject of the Variation; or
(ii) location of the work involved in the Variation.

(d) The Contractor's entitlement (if any) to an extension of time and delay costs in respect of Variations will be dealt with under clause 10 and not this clause 6. The valuation of Variations under clause 6.4 and clause 6.7 will exclude any amount for costs incurred by the Contractor as a result of any delay.

6.3 Options

The Principal's Representative may, by written notice given to the Contractor at any time within the period stated in Schedule 15, exercise any Option. Commencing upon the issue of such a notice by the Principal's Representative, the Principal and the Contractor must perform their obligations under this Contract on the basis that the Contract Sum and the provisions of this Contract will be adjusted as set out in Schedule 15 for the relevant Option.

For the avoidance of doubt:
(a) the Principal is not under any obligation whatsoever to exercise; and
(b) the 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 6.3 will not:
(c) relieve the Contractor from its liabilities or obligations (including those arising out of any warranties given under this Contract); or
(d) limit or otherwise affect the Principal's rights against the Contractor or the Contractor's rights against the Principal (including those arising out of any warranties given under this Contract), whether under this Contract or otherwise according to any Law.

6.4 Valuation

Subject to clauses 15 and 17, the Contract Sum and the Payment Breakdown Schedule will be adjusted for all Variations that have been directed by the Principal's Representative by:
(a) to the extent that clause 6.2(a)(i) applies, the agreed amount as specified in the Variation Order;
(b) to the extent that clause 6.2(a)(ii) applies:
   (i) an amount in respect of the Variation to be determined by the Principal's Representative where applicable or where it is reasonable to use them for valuing the Variation, on the basis of:
      A. the prices and rates set out in the Schedule 10; and
      B. where relevant any other applicable data in the Contract; or
   (ii) to the extent sub-paragraph (i) does not apply, an amount determined by the Principal's Representative on the basis of reasonable prices and rates (which are to be exclusive of any margin for on-site overheads,
preliminaries, off-site overheads or profit) to be agreed between the parties, or failing agreement, determined by the Principal's Representative, which will be increased by:

A. where the adjustment to the Contract Sum is to be an increase, the relevant percentage set out in Schedule 1 of the total amount determined under sub-paragraph (ii); or

B. where the adjustment to the Contract Sum is to be a decrease, the relevant percentage set out in Schedule 1 of the total amount determined under sub-paragraph (ii),

provided however that in either case, where the Principal's Representative has issued a Variation Proposal Request, the Contractor's entitlement under this clause 6.4(b) will not be greater than any amount set out in the Contractor's notice under clause 6.1; or

(c) to the extent that clause 6.2(a)(iii) applies, the amount determined by the Principal's Representative under clause 6.7.

6.5 Omissions

If a Variation the subject of a direction by the Principal's Representative requires the omission or deletion of any part of the Works:

(a) the Principal may thereafter either perform this work itself or employ or engage any other person or persons to carry out and complete the omitted or deleted work;

(b) the Principal will not be liable upon any Claim by the Contractor arising out of or in any way in connection with any work being omitted or deleted from the Contractor's Activities whether or not the Principal thereafter performs this work itself or employs or engages any other person or persons to carry out and complete the omitted or deleted work; and

(c) the adjustment to the Contract Sum arising from the work that has been omitted or deleted will be valued in accordance with clause 6.4.

6.6 Daywork

If the Contractor is given a direction under clause 6.2(a)(iii) to carry out work as daywork, the Contractor must:

(a) carry out the daywork in an efficient manner; and

(b) after the direction, each day provide the Principal's Representative with a written report signed by the Contractor that:

(i) records particulars of all resources used by the Contractor for the execution of the daywork; and

(ii) includes those particulars reasonably required by the Principal's Representative that evidence the cost of the daywork.

The Principal's Representative may direct the manner in which these matters are to be recorded.
6.7 **Valuation of Daywork**

In valuing the adjustment to the Contract Sum arising from any work that the Principal's Representative directs to be carried out as daywork, the Principal's Representative will have regard to:

(a) the amount of wages and allowances paid or payable by the Contractor for the hours reasonably worked in respect of the daywork at the rates:
   (i) set out in Schedule 10 (which rates will apply to all labour whether employed by the Contractor, a Subcontractor or otherwise);
   (ii) where the rates in Schedule 10 do not apply, as established by the Contractor to the satisfaction of the Principal's Representative; or
   (iii) determined by the Principal's Representative;

(b) the amount paid or payable by the Contractor in accordance with any statute or award applicable to labour additional to the amount determined under clause 6.7(a);

(c) the reasonable amount of hire charges and associated fuel and other operating costs in respect of Construction Plant approved by the Principal's Representative for use on the work in accordance with such hiring rates and conditions as may be:
   (i) agreed between the Principal's Representative and the Contractor; and
   (ii) failing agreement, determined by the Principal's Representative;

(d) the reasonable amounts paid by the Contractor for subcontract work, including professional fees; and

(e) the reasonable actual cost to the Contractor at the Site of all materials supplied and required for the daywork,

to which will be added to the extent that the rates set out in Schedule 10 are not already expressed to be inclusive of the Contractor's non-time related preliminaries, on-site overheads, off-site overheads and profit, the relevant percentage specified in Schedule 1 of the amounts determined under paragraphs (a) to (e), which will be in total satisfaction of all the Contractor's non-time related preliminaries, on-site overheads and all off-site overheads and profit.

7. **Construction**

7.1 **Construction**

(a) The Contractor must construct and hand-over to the Principal the Works and construct the Temporary Works in accordance with:
   (i) the Contract and (if applicable) any Design Documentation that has been prepared by the Contractor in accordance with the requirements of the Contract and not rejected by the Principal's Representative under clause 9.8;
   (ii) any direction of the Principal's Representative given or purported to be given under a provision of this Contract; and
   (iii) the other requirements of this Contract.

(b) At monthly intervals during the construction work and at the completion of each work package, the Contractor must submit to the Principal's Representative a Certificate of Construction in the form of Schedule 19.
7.2 All Work Included

The Contractor:
(a) warrants it has allowed for the provision of;
(b) must undertake and provide; and
(c) will not be entitled to make, and the Principal will not be liable upon, any Claim except as otherwise provided for in this Contract, relating to the provision of,

all Construction Plant, Temporary Works, labour, materials and other work necessary to execute the Contractor's Activities, whether or not expressly mentioned in this Contract or anticipated by the Contractor, and agrees that all such Construction Plant, Temporary Works, labour, materials and work forms part of the Contractor's Activities.

7.3 Provisional Sum Work

For each item of Provisional Sum Work, the Principal's Representative will give the Contractor a direction either requiring the Contractor to proceed with the item of Provisional Sum Work or deleting the item of Provisional Sum Work.

Where the Principal's Representative gives the Contractor a notice requiring the Contractor to proceed with an item of Provisional Sum Work, the Contract Sum will be adjusted for the item of Provisional Sum Work by the difference between:
(a) the amount allowed for the item of Provisional Sum Work in Schedule 1; and
(b) either:
   (i) an amount agreed between the Contractor and the Principal's Representative; or
   (ii) if they fail to agree, an amount determined by the Principal's Representative:
      A. on the basis set out in clause 6.4(b); or
      B. if the Principal's Representative directs that the item of Provisional Sum Work is to be carried out as daywork, under clause 6.7,

as if the item of Provisional Sum Work were a Variation, provided that the amount determined under this clause 7.3(b)(ii) will not include the percentages referred to in clause 6.4(b)(ii) or the last paragraph of clause 6.7 but will include the relevant percentage for Provisional Sums in Schedule 1 for the offsite overheads and profit of the Contractor.

Where the Principal's Representative gives the Contractor a direction deleting an item of Provisional Sum Work:
(c) the Contract Sum will be reduced by the amount allowed for the item of Provisional Sum Work in Schedule 1;
(d) the Principal may engage an Other Contractor to carry out the item of Provisional Sum Work; and
(e) the Principal will not be liable upon any Claim by the Contractor arising out of the deletion of the item of Provisional Sum Work.
7.4 Co-operation with Other Contractors

Without limiting or being limited by clause 2.8, the Contractor must:
(a) permit Other Contractors to carry out their work;
(b) fully co-operate with Other Contractors;
(c) carefully coordinate and interface the Contractor's Activities with the work carried out or to be carried out by Other Contractors; and
(d) carry out the Contractor's Activities so as to minimise any interfering with, disrupting or delaying the work of Other Contractors.

The Principal shall procure that each of its Other Contractors that undertakes Other Contractor Work executes a deed poll in favour of the Contractor, as principal contractor, and the Principal in the form set out in Schedule 22.

7.5 Setting Out

The Contractor must:
(a) set out the Works in accordance with the requirements of this Contract, based on information and survey marks (including any survey peg, bench mark, reference mark, signal, alignment, level mark or any other mark for the purpose of setting out, checking or measuring work) identified by the Contractor that are suitable for their purposes;
(b) carry out any survey (including providing all instruments and things) that may be necessary for this purpose; and
(c) for this purpose keep all survey marks in their true positions.

If the Contractor discovers an error in the position, level, dimensions or alignment of any part of the Works, the Contractor must immediately notify the Principal's Representative and, unless the Principal's Representative otherwise directs, the Contractor must at its cost rectify the error.

7.6 Survey

The Contractor must, as a condition precedent to Completion of the Works or any Portion, and as otherwise required by the Principal's Representative, submit to the Principal's Representative a certificate signed by a licensed surveyor stating that:
(a) the whole of the Works or the Portion is within the relevant boundaries of the Site stipulated in Schedule 1;
(b) the elements of the Works or the Portion are in the positions and within the tolerances required by this Contract, including those specified in the Works Brief;
(c) the survey information included in the Asset Management Information provided pursuant to the TfNSW Standard Requirements complies with the requirements of this Contract; and
(d) any other matter identified by the Principal's Representative, complies with the requirements of this Contract.

7.7 Cleaning Up

In carrying out the Contractor's Activities, the Contractor must:
(a) keep the Site and the Works clean and tidy and free of refuse;
(b) regularly remove rubbish, litter, graffiti and surplus material from the Site; and
(c) as a condition precedent to Completion of the Works or a Portion, remove all rubbish, surplus materials, Construction Plant and Temporary Works from the Site or the part of the Site relevant to the Portion.

7.8 Construction Plant and Materials Removal

Except for the purpose of achieving Completion as contemplated by clause 7.7(c), the Contractor must not remove from the Site or the Contractor’s Activities any:
(a) significant materials or major items of Construction Plant; or
(b) materials or Construction Plant specified in any written notice issued by the Principal’s Representative,

without the prior written approval of the Principal's Representative, which approval will not be unreasonably withheld.

7.9 Safety

(a) The Contractor must carry out the Contractor's Activities:
(i) safely and in a manner that does not put the health and safety of persons at risk; and
(ii) in a manner that protects property.

If the Principal's Representative reasonably considers there is a risk to the health and safety of people or damage to property arising from the Contractor's Activities, the Principal's Representative may direct the Contractor to change its manner of working or to cease working.

(b) The Contractor must:
(i) ensure that in carrying out the Contractor's Activities:
A. it complies with all Law and other requirements of the Contract for work health, safety and rehabilitation management;
B. all subcontractors and consultants comply with the requirements referred to in this clause 7.9 and their respective obligations under the WHS Legislation; and
C. it complies 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;
(ii) notify the Principal's Representative immediately (and in the event within 12 hours of such matter arising) of all work health, safety and rehabilitation matters arising out of, or in connection with, the Contractor’s Activities;
(iii) 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;

(iv) provide the written assurances obtained pursuant to subparagraph (iii), together with written assurance(s) from the Contractor about the Contractor's ongoing compliance with the WHS Legislation, to the Principal's Representative;

(v) provide the Principal's Representative with a written report at each meeting held in accordance with clause 9.5, on all work health, safety and rehabilitation matters (including matters concerning or arising out of, or in connection with, this clause 7.9), or any other relevant matters as the Principal's Representative may require from time to time, including a summary of the Contractor's compliance with the WHS Legislation;

(vi) cooperate with all Other Contractors and the Principal to ensure that all parties are able to comply with their respective obligations under the WHS Legislation;

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

(viii) ensure that it does not do anything or fail to do anything that would cause the Principal to be in breach of the WHS Legislation; and

(ix) ensure its subcontracts include provisions equivalent to the obligations of this clause 7.9 (save for the engagement of the Contractor as principal contractor).

8. Defects

8.1 Defects Liability

Subject to clause 8.2, the Contractor must rectify all Defects whether or not they are identified and notified by the Principal's Representative.

Without limiting the previous paragraph, the Contractor must rectify any Defects in a Portion which existed at Completion of that Portion as soon as possible after Completion of that Portion.

When rectifying Defects which existed at Completion, the Contractor must do so at times and in a manner which causes as little inconvenience to the occupants of the Works or Other Contractors as reasonably possible.

8.2 Defect Notification

If at any time prior to the expiration of any Defects Rectification Period (including for the avoidance of doubt prior to Completion of the Works or any Portion), the Principal's Representative discovers or believes there is a Defect, the Principal's Representative may give the Contractor a direction which identifies the Defect and does one or more of the following:
(a) requires the Contractor to rectify the Defect, or any part of it, and specifying the time within which this must occur; or

(b) advises the Contractor that the Principal will accept the work, or any part of it, despite the Defect; or

(c) in respect of any Defect to which clause 8.3(b) applies, advises the Contractor that an Other Contractor will rectify the Defect, or any part of it, or carry out a Variation to overcome the Defect, or any part of it.

8.3 Rectification of Defect

If a direction is given under clause 8.2(a):

(a) the Contractor must rectify the Defect (or the part of it notified):

(i) within the times specified in the Principal's Representative's direction, which will generally be limited to the periods during which the rectification work will cause minimal or no inconvenience to the operators, including RailCorp (where relevant), and occupants of the Works; and

(ii) if after Completion of the Works or relevant Portion:

A. at other times otherwise agreed with the Principal's Representative;

B. in accordance with the requirements of the operators of the Works, including RailCorp (where relevant), and any other relevant Authority;

C. so as to minimise the impact on the use of the Works or the Portion; and

D. in a manner which causes as little inconvenience as possible to users of the Works or the Portion or the public, any Service or any access to the Works or the Portion; and

(b) if the Contractor does not comply with clause 8.3(a)(i), the Principal's Representative may, without prejudice to any other rights that the Principal may have against the Contractor with respect to the Defect, give the Contractor a direction under clause 8.2(c) and have the rectification work carried out at the Contractor's expense, and the cost of the rectification work incurred by the Principal will be a debt due from the Contractor to the Principal.

The Contractor must pay the Principal all costs incurred by the Principal in providing access to the Works, or arranging the availability of any RailCorp resources, as may be necessary for the Contractor to rectify any Defect during the Defect Rectification Period.

8.4 No Claim for Correction of Defect

Where a direction is given under clause 8.2(a), the Contractor will not be entitled to make a Claim against the Principal for rectifying the Defect (or the part notified) and must bear all costs, losses and expenses suffered or incurred in rectifying the Defect.

8.5 Acceptance of Work

If a direction is given under clause 8.2(b):

- requires the Contractor to rectify the Defect, or any part of it, and specifying the time within which this must occur; or
- advises the Contractor that the Principal will accept the work, or any part of it, despite the Defect; or
- in respect of any Defect to which clause 8.3(b) applies, advises the Contractor that an Other Contractor will rectify the Defect, or any part of it, or carry out a Variation to overcome the Defect, or any part of it.

8.3 Rectification of Defect

If a direction is given under clause 8.2(a):

(a) the Contractor must rectify the Defect (or the part of it notified):

(i) within the times specified in the Principal's Representative's direction, which will generally be limited to the periods during which the rectification work will cause minimal or no inconvenience to the operators, including RailCorp (where relevant), and occupants of the Works; and

(ii) if after Completion of the Works or relevant Portion:

A. at other times otherwise agreed with the Principal's Representative;

B. in accordance with the requirements of the operators of the Works, including RailCorp (where relevant), and any other relevant Authority;

C. so as to minimise the impact on the use of the Works or the Portion; and

D. in a manner which causes as little inconvenience as possible to users of the Works or the Portion or the public, any Service or any access to the Works or the Portion; and

(b) if the Contractor does not comply with clause 8.3(a)(i), the Principal's Representative may, without prejudice to any other rights that the Principal may have against the Contractor with respect to the Defect, give the Contractor a direction under clause 8.2(c) and have the rectification work carried out at the Contractor's expense, and the cost of the rectification work incurred by the Principal will be a debt due from the Contractor to the Principal.

The Contractor must pay the Principal all costs incurred by the Principal in providing access to the Works, or arranging the availability of any RailCorp resources, as may be necessary for the Contractor to rectify any Defect during the Defect Rectification Period.

8.4 No Claim for Correction of Defect

Where a direction is given under clause 8.2(a), the Contractor will not be entitled to make a Claim against the Principal for rectifying the Defect (or the part notified) and must bear all costs, losses and expenses suffered or incurred in rectifying the Defect.

8.5 Acceptance of Work

If a direction is given under clause 8.2(b):
(a) where the value to the Principal of the Works is reduced (which will include having regard to any additional operating or maintenance costs) arising out of or in any way in connection with the Defect (or the part notified), the Contract Sum will be reduced by the amount determined by the Principal's Representative as the higher of the cost of rectifying the Defect (or the part notified) and the diminution in the value to the Principal of the Works; or

(b) where the value to the Principal of the Works increases because of the acceptance of the Defect (or the part notified):

(i) the Principal's Representative will determine an amount by subtracting the cost of rectifying the Defect from the increased value of the Works; and

(ii) the Contract Sum will:

A. be reduced by the amount determined by the Principal's Representative, where that amount is negative; and

B. not be changed where the amount determined by the Principal's Representative is positive.

8.6 Extension of Defects Rectification Period

If:

(a) the Principal's Representative gives the Contractor a notice under clause 8.2(a) during any Defects Rectification Period; and

(b) the Contractor rectifies the Defect (or the part notified),

the relevant Defects Rectification Period for the work required by the notice will be extended by the period set out in Schedule 1, commencing upon completion of the rectification of the Defect (or the part notified).

8.7 Defect Rectification by Other Contractor

Where a direction is given under clause 8.2(c):

(a) without limiting or otherwise affecting clauses 2.8 or 7.3, the Contractor must not impede the Other Contractor from having sufficient access to the Site to rectify the Defect or carrying out the Variation to overcome the Defect;

(b) any costs, losses or damages suffered or incurred by the Principal arising out of or in any way in connection with, the Other Contractor rectifying the Defect or carrying out the Variation, will be a debt due from the Contractor to the Principal;

8.8 Rights Not Affected

Neither the Principal's rights, nor the Contractor's liability, whether under this Contract or otherwise according to law in respect of Defects, whether before or after the expiration of any relevant Defects Rectification Period, will be in any way affected or limited by:

(a) the rights conferred upon the Principal or the Principal's Representative by this clause 7.9 or any other provision of this Contract;

(b) the exercise of, or the failure by the Principal or the Principal's Representative to exercise, any such rights; or

(c) any notice or direction of the Principal's Representative under clause 8.2.
9. Administration

9.1 Principal's Representative

(a) The Principal must ensure that at all times until Final Completion there is a Principal’s Representative. The Contractor acknowledges and agrees that the Principal's Representative will give directions and carry out all its other functions under this Contract as the agent of the Principal (and not as an independent certifier, assessor or valuer) and is subject to the directions of the Principal.

The Contractor must comply with any direction by the Principal's Representative given or purported to be given under a provision of this Contract.

Except where this Contract otherwise provides, the Principal's Representative may give a direction orally but will as soon as practicable confirm it in writing.

(b) The parties acknowledge that any direction by the Principal's Representative under one of the clauses referred to in Schedule 1 is an interim position only and that, without limiting the rights of the Principal's Representative under clause 11.3, either party may seek to have any such direction opened up, reviewed, decided and substituted pursuant to clause 15 by giving a notice of dispute to the other party and the Principal's Representative in accordance with clause 15.1.

The Principal will not be liable upon any Claim by the Contractor arising out of or in connection with any such direction by the Principal's Representative in circumstances where it is incorrect, subsequently overturned pursuant to clause 15 or is unreasonable (other than in accordance with the corrected determination). The Contractor acknowledges and agrees that its sole means of redressing any errors contained in or associated with any such direction by the Principal's Representative is by giving a notice of dispute in accordance with clause 15.1.

9.2 Replacement of the Principal's Representative

The Principal may at any time replace the Principal's Representative, in which event the Principal must appoint another person as the Principal's Representative and notify the Contractor of that appointment.

Any substitute Principal's Representative appointed under this clause 9.2 will be bound by anything done by the former Principal's Representative to the same extent as the former Principal's Representative would have been bound.

9.3 Delegation of Functions

(a) The Principal's Representative may:

(i) by written notice to the Contractor appoint persons to exercise any of the Principal's Representative's functions under this Contract;

(ii) not appoint more than one person to exercise the same function under this Contract; and

(iii) revoke any appointment under clause 9.3(a)(i) by notice in writing to the Contractor.
(b) The Principal's Representative may continue to exercise a function under this Contract despite appointing another person to exercise the function under clause 9.3(a)(i).

(c) All references in this Contract to the Principal's Representative include a reference to an appointee appointed under clause 9.3(a)(i).

9.4 Contractor's Personnel

(a) The Contractor must notify the Principal's Representative in writing of the name of the Contractor's Representative (who at the date of this Contract is the relevant person listed in Schedule 1) and of any subsequent changes.

(b) The Contractor must:

(i) employ the individuals nominated by the Contractor and listed in Schedule 1 in the positions specified in Schedule 1 or equivalent positions;

(ii) subject to clause 9.4(b)(iii), not replace the individuals referred to in clause 9.4(b)(i) without the Principal's Representative's prior written approval which will not be unreasonably withheld; and

(iii) if any of the individuals referred to in clause 9.4(b)(i):

A. die;

B. become unable to continue in their positions due to illness;

C. resign from the employment of the Contractor (other than to accept other employment with the Contractor or any "related body corporate" of the Contractor (as that term is defined in section 9 of the Corporations Act 2001 (Cth)); or

D. become the subject of a direction under clause 9.4(c), replace them with personnel of at least equivalent experience, ability, knowledge and expertise approved by the Principal's Representative.

(c) The Principal's Representative may, at its absolute discretion and without being obliged to give any reasons, by notice in writing direct the Contractor to remove any person (including a person referred to in clause 9.4(a) or clause 9.4(b)) from the Site and the Contractor's Activities. The Contractor must then cease to engage that person in the Contractor's Activities and must appoint a replacement.

(d) The Contractor must ensure that any person the subject of a direction under clause 9.4(c) is not again employed in the Contractor's Activities or on the Site.

(e) Any direction under clause 9.1(a) will be deemed to have been given to the Contractor if given to the Contractor's Representative. Matters within the knowledge of the Contractor's Representative will be deemed to be within the knowledge of the Contractor.

9.5 Site Meetings

The Contractor must convene meetings on the Site at:

(a) prior to the Date of Completion of the Works, weekly or such longer intervals as may be directed in writing by the Principal's Representative; and
(b) monthly intervals after the Date of Completion of the Works until all Defects Rectification Periods (including any extension under clause 8.6), have expired or at such other intervals as may otherwise be agreed.

9.6 Environmental Representative

The Contractor acknowledges and agrees that:

(a) the Principal has appointed the Environmental Representative as required by an Authority Approval;

(b) the Environmental Representative:

(i) shall oversee the implementation of all environmental management plans and monitoring programs required under the Planning Approval, and shall advise the Principal upon achievement of the outcomes contemplated in the Planning Approval;

(ii) shall advise the Principal and the Principal's Representative on the Contractor's compliance with the Planning Approval; and

(iii) shall have the authority and independence to:

A. direct the Contractor as to;

B. advise the Principal's Representative to direct the Contractor as to,

reasonable steps the Contractor must take to avoid or minimise unintended or adverse environmental impacts;

(c) it must comply with the directions of the Environmental Representative or the Principal's Representative as contemplated by clause 9.6(b)(iii); and

(d) it bears the full risk of complying with any directions given by the Environmental Representative or the Principal's Representative as contemplated by clause 9.6(c) and none of the Principal, the Principal's Representative or the Environmental Representative will be liable upon any Claim arising out or in any way in connection with such directions.

9.7 Industrial Relations

The Contractor must in carrying out the Contractor's Activities:

(a) assume sole responsibility for and manage all aspects of industrial relations for the Contractor's Activities;

(b) ensure all Subcontractors manage all aspects of the industrial relations with their employees appropriately;

(c) ensure that the rates of pay and conditions of employment specified in all relevant industrial, enterprise and project based agreements and awards, and any relevant Law, for all employees engaged by any person in connection with the Contractor's Activities, are always observed in full;

(d) keep the Principal's Representative fully and promptly informed of industrial relations problems or issues that affect or are likely to affect the carrying out of the Contractor's Activities and Other Contractors' activities;

(e) without limiting clause 2.2(g), comply with all the requirements of the NSW Government Code of Practice for Procurement (January 2005 Edition), and the NSW Government Industrial Relations Management Guidelines, December 1999;
(f) conduct its industrial relations affairs in accordance with the Industrial Relations Management Plan developed and submitted by the Contractor as part of the Contract Management Plan, in accordance with the TfNSW Standard Requirements and clause 9.8;

(g) prepare, document and implement a project Industrial Relations Management Plan which must be based on the draft outline Industrial Relations Management Plan (if any) submitted with the Contractor's Tender;

(h) not commence any work on the Site (unless otherwise approved by the Principal's Representative) until the Industrial Relations Management Plan has been submitted to the Principal's Representative and the Principal's Representative has not rejected it under clause 9.8;

(i) submit, before beginning work on the Site, a statement detailing:
  (i) the location of time and wage records and other documents that are required to be kept to verify ongoing compliance with all employment and legal obligations;
  (ii) the names of Federal or NSW awards that are likely to cover the Contractor and Subcontractors involved in the Contractor's Activities; and
  (iii) the names of those responsible for coordinating industrial relations for the Contractor's Activities;

(j) not do, or omit to do, anything that is, or is likely to be, prejudicial to the delivery of the Works;

(k) before beginning work on the Site, submit a statement on the Contractor's letterhead and signed by an authorised person, attesting to the Contractor's compliance, in the preceding twelve months, with all employment and legal obligations, including:
  (i) payment of remuneration to employees;
  (ii) annual leave provisions;
  (iii) Long Service Leave Payment Scheme registration;
  (iv) workers' compensation insurance, including self-insurance arrangements;
  (v) superannuation fund membership and contributions; and
  (vi) over-award payments such as redundancy fund contributions; and

(l) continue to provide during the Contractor's Activities appropriate information to verify compliance with the awards, enterprise and workplace agreements and all other legal obligations relating to the employment of people for the Contractor's Activities.

If the Contractor engages an independent industry or employer association or other specialist organisation to audit service and verify compliance with employment and legal obligations, a statement or declaration from that organisation may be submitted instead of the statement by the Contractor under paragraph (i).

The industrial relations requirements contained in this Contract and the NSW Government Industrial Relations Management Guidelines, December 1999:

(m) are in addition to, but are not in substitution for, any requirements of Law; and
(n) do not limit the powers of the Principal or the liabilities and responsibilities of the Contractor.

The Contractor warrants and acknowledges that it has allowed in the Original Contract Price for all the costs and expenses involved with complying with all the requirements of this Contract relating to industrial relations and all relevant awards, enterprise and industrial agreements and project specific agreements and awards.

9.8 Submission for Review by the Principal's Representative

(a) The Contractor must submit each Document;

(i) progressively and in timely manner to ensure that the Contractor's Activities are completed by the times required under this Contract, and by the times or within the periods:

A. identified in the Contractor's Program not rejected by the Principal's Representative; or

B. in the absence of a time or period in the Contractor's Program, required by the Principal's Representative; and

(ii) under cover of a written notice entitled "Submit for Review", which identifies:

A. the Document; and

B. the provision of this Contract under which the Document is submitted.

(b) A Document will be deemed not to have been submitted to the Principal's Representative unless and until:

(i) the Document covers, fully details and co-ordinates the whole of discrete areas of work so as to allow the area of work to be fully understood; and

(ii) the Contractor has otherwise complied with this clause 9.8, in addition to any other requirement of this Contract relating to the submission of that Document.

(c) The Principal's Representative may, after the submission of a Document which satisfies the requirements of clause 9.8(b):

(i) review the Document, or any resubmitted Document, prepared and submitted by the Contractor; and

(ii) where submitted or resubmitted in accordance with a program which has not been rejected by the Principal's Representative, within 15 Business Days of submission by the Contractor of such Document or resubmitted Document:

A. reject the Document if in its opinion the Document (or any part) does not comply with the requirements of this Contract, stating the nature of the non-compliance; or

B. make comments on the Document.

(d) If any Document is rejected or deemed to be rejected, the Contractor must submit an amended Document to the Principal's Representative within 10 Business Days of the date of such rejection or deemed rejection and this clause 9.8 will re-apply.
If any Document is not rejected and the Principal's Representative responds to the submission with comments, the Contractor must respond to the comments within 10 Business Days or such other period as may be directed by the Principal's Representative.

If the Contractor fails to respond to the Principal's Representative's comments within this period in a manner satisfactory to the Principal's Representative the Document will be deemed to be rejected.

(e) The Contractor must not commence construction of any part of the Works to which any Document (other than the Contractor's Program) submitted to the Principal's Representative applies, unless the Principal's Representative has had the period referred to in clause 9.8(c)(ii) to review the Document and has not rejected the Document or made any comments on the Document (except in the case where the Contractor has responded to the Principal's Representative's comments within the required time period and in a manner satisfactory to the Principal's Representative as referred to in clause 9.8(d)).

(f) The Contractor must not amend for construction purposes any Document that has:
   (i) been submitted to the Principal's Representative; and
   (ii) not been rejected or not had comments made about it under clause 9.8(c)(ii),

unless the Contractor submits the proposed amendments to the Principal's Representative, in which case this clause 9.8 will re-apply.

(g) The Principal's Representative does not assume or owe any duty of care or other responsibility to the Contractor to review, or in reviewing, a Document submitted by the Contractor, including for errors, omissions or non-compliance with this Contract.

(h) The 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 Principal's Representative not detecting and notifying the Contractor of any errors, omissions or non-compliance with the requirements of this Contract in any Document submitted.

(i) No review of, comment upon or rejection of, or failure to review or comment upon or reject, a Document prepared by the Contractor, or any other direction by the Principal's Representative in connection with the Document, will:
   (i) constitute a direction to carry out a Variation pursuant to clause 6.2, unless it is in a written document titled "Variation Order" and describes the nature of the Variation in accordance with clause 6.2(a);
   (ii) relieve the Contractor from or alter its liabilities or obligations, whether under this Contract or otherwise according to any Law; or
   (iii) limit or otherwise affect the Principal's rights against the Contractor, whether under this Contract or otherwise according to any Law.

(j) In considering any Document, the Principal's Representative may consult with and take into account any views or requirements of any relevant Authority.

(k) Unless otherwise advised by the Principal's Representative, the Contractor must submit the number of copies of a Document stated in this Contract, or if no number is stated then:
9.9 Work Method

Whether or not this Contract prescribes a particular work method or a work method is otherwise a part of this Contract or reviewed or approved (expressly or impliedly) by the Principal's Representative, the fact that any work method that the Contractor adopts or proposes to adopt is impractical or impossible or that the Contractor, with or without the approval of the Principal's Representative, uses another work method will:

(a) not entitle the Contractor to make any Claim against the Principal arising out of or in any way in connection with the work method proving to be impractical or impossible or any change in the work method; and

(b) not cause the Contract to be frustrated.

9.10 Exchange of Information between Government Agencies

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

The Contractor acknowledges that any information about the 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 Contractor future opportunities for NSW government work.

The Contractor also acknowledges that the Principal has in place processes for assessing the performance of its contractors, that these processes will apply to the Contractor's performance under this Contract and that it will participate in the Principal's "Contractor Performance Reporting" process.

9.11 Employment of Aboriginal and Torres Strait Islander People

The Contractor must:

(a) use its best endeavours to provide employment opportunities to Aboriginal and Torres Strait Islander people in accordance with the NSW Government Aboriginal Participation in Construction Implementation Guidelines;

(b) as part of the human resources input to and the documentation and implementation of the Contractor's Contract Management Plan, address the employment of Aboriginal and Torres Strait Islander people and compliance with the NSW Government Aboriginal Participation in Construction Implementation Guidelines; and

(c) provide reports to the Principal's Representative in such format and within such times as may be required by the Principal's Representative which record the performance of the Contractor in relation to Aboriginal participation.
9.12 Waste Reduction and Purchasing Policy

The Contractor must:
(a) use its best endeavours to reduce wastage and increase the use of recycled materials in accordance with the NSW Government Waste Reduction and Purchasing Policy "WRAPP";
(b) address as part of the Contractor's Environment Management Plan the measures to be taken to reduce wastage and increase the use of recycled materials in the areas of paper products, office consumables, vegetation and landscaping materials, and construction and demolition materials; and
(c) provide reports to the Principal's Representative in such format and within such times as may be required by the Principal's Representative for the use by the Principal in complying with its WRAPP obligations to report performance.

9.13 Training Management

(a) Subject to the express provisions of the Contract, the Contractor must comply with the NSW Government "Training Management Guidelines", February 2009.
(b) Training management requirements specified in the Contract and the NSW Government "Training Management Guidelines" may be in addition to, but are not in substitution for, any training obligations of the Contractor under statute, industrial award, enterprise or workplace agreement, or other workplace arrangements approved under Federal or NSW law.
(c) Where applicable, as indicated in Schedule 1, at least 14 days before starting work on the Site the Contractor must document and submit a Project Training Management Plan which complies with the NSW Government "Training Management Guidelines", February 2009.
(d) The Contractor must systematically manage its training management processes in accordance with the systems, plans, standards and codes specified in the Contract.
(e) The Contractor must demonstrate to the Principal, whenever requested, that it has met and is meeting at all times its obligations under this clause 9.13.

10. Time and Progress

10.1 Rate of Progress

The Contractor must:
(a) regularly and diligently progress the Contractor's Activities;
(b) proceed with the Contractor's Activities with due expedition and without delay;
(c) achieve Completion of the Works and each Portion by the relevant Date for Completion.

Without limiting the Contractor's rights under the SOP Act, the Contractor must not suspend the progress of the whole or any part of Contractor's Activities except where directed by the Principal's Representative under clause 10.14.

Without limiting the next paragraphs of this clause 10.1 or clause 10.4, the Contractor must give the Principal's Representative reasonable advance notice of any information, documents or directions required by the Contractor.
The Principal and the Principal's Representative will not be obliged to furnish information, documents or directions earlier than the Principal or the Principal's Representative, as the case may be, should reasonably have anticipated at the date of this Contract.

The Principal's Representative may, by written notice expressly stated to be pursuant to this clause 10.1, direct in what order and at what time the various stages or parts of the Contractor's Activities must be performed. If the Contractor can reasonably comply with the direction, the Contractor must do so. If the Contractor cannot reasonably comply, the Contractor must notify the Principal's Representative in writing, giving reasons. For the avoidance of doubt, no direction by the Principal's Representative will constitute a direction under this clause 10.1 unless the direction is in writing and expressly states that it is a direction under this clause 10.1.

If compliance with a written direction expressly stated to be pursuant to this clause 10.1 causes the Contractor to incur more or less cost than otherwise would have been incurred, the difference will be dealt with and valued as if it were a Variation except where the direction was necessary because of, or arose out of, a failure by the Contractor to comply with its obligations under this Contract.

10.2 The Contractor's Programming Obligations

The Contractor must:

(a) prepare and provide a Contractor Program including the details required by this Contract and any requirements of the Principal's Representative;

(b) sequence and arrange the Contractor's Activities to meet each Date for Completion;

(c) submit to the Principal's Representative for its review in accordance with clause 9.8 the Contractor Program within 45 Business Days of the date of this Contract;

(d) submit to the Principal's Representative:

(i) for its review in accordance with clause 9.8 a copy of the initial Contractor's working programs within 15 Business Days of the date of this Contract; and

(ii) a copy of all subsequent revisions within 2 Business Days after their preparation;

(e) when directed to do so by the Principal's Representative, prepare and submit to the Principal's Representative specific detailed programs and schedules for the Contractor's Activities within 5 Business Days of receipt of such a direction;

(f) update, revise and submit to the Principal's Representative an updated Contractor Program:

(i) to allow for delays, extensions of time granted by the Principal's Representative to any Date for Completion, the actual progress made by the Contractor, Variations and any other changes to the Contractor's Activities but excluding claims for extensions of time to any Date for Completion which have been submitted by the Contractor to the extent that they have not been granted by the Principal's Representative; and

(ii) on a monthly basis or whenever directed to do so by the Principal's Representative;
(g) prepare and provide for the Principal's Representative's information only versions of all Contractor Programs prepared in accordance with clause 10.2(f) that also allow for those claims for an extension of time to any Date for Completion that have been made by the Contractor in accordance with clause 10.8 but to which the Principal's Representative has not yet responded in accordance with clause 10.10;

(h) comply with the requirements of the Principal's Representative and its other obligations under this Contract in preparing and using programs, including those in clause 9.8; and

(i) comply with the current version of the Contractor Program and any working programs that have been submitted to the Principal's Representative under clause 9.8 and not been rejected by the Principal's Representative within 15 Business Days.

10.3 Contractor not Relieved

Without limiting clause 9.8, no submission of, review of or comment upon, acceptance or rejection of, or any failure to review or comment upon or reject, a program (including the Contractor Program) prepared by the Contractor, by the Principal's Representative in connection with the program, will:

(a) relieve the Contractor from or alter its liabilities or obligations under this Contract, including the obligation under clause 10.1;

(b) evidence or constitute the granting of an extension of time to any Date for Completion or a direction by the Principal's Representative to compress, disrupt, prolong or vary any, or all, of the Contractor's Activities; or

(c) affect the time for the performance of the Principal's or the Principal's Representative's obligations under this Contract.

10.4 Compression by Contractor

If the Contractor chooses to compress the Contractor's Activities or otherwise accelerate progress:

(a) neither the Principal nor the Principal's Representative will be obliged to take any action to assist or enable the Contractor to achieve Completion before any Date for Completion;

(b) the time for carrying out the obligations of the Principal or the Principal's Representative will not be affected; and

(c) the Contractor does so at its own cost and risk.

10.5 Importance of Completion on Time

The Contractor acknowledges:

(a) the importance of complying with its obligation under clause 10.1; and

(b) that a Date for Completion will only be extended in accordance with clause 10.10 or clause 10.12, or when so determined under clause 15.

10.6 Risk and Notice of Delay

(a) Except as expressly provided for in clause 10.10, the Contractor accepts the risk of all delays in, and disruption to, the carrying out of the Contractor's Activities and performance of its obligations under this Contract.
(b) The Contractor must within 5 days of the commencement of an occurrence causing any delay give the Principal's Representative written notice of any delay to the carrying out of the Contractor's Activities, details of the cause and how any Date of Completion is likely to be affected (if at all).

10.7 Entitlement to Claim Extension of Time

(a) If the Contractor is, or will be, delayed prior to the Date for Completion of the Works or a Portion, by reason of an act or omission of the Principal or the Principal's Representative (including any breach of Contract or Variation directed by the Principal's Representative) or a cause set out in Schedule 1 in a manner that will prevent it from achieving Completion of the Works or the Portion by the relevant Date for Completion, the Contractor may claim an extension of time to the relevant Date for Completion.

(b) If the Contractor is, or will be, delayed after the Date for Completion of the Works or a Portion, by reason of an act or omission of the Principal or the Principal's Representative (including any breach of Contract or Variation directed by the Principal's Representative) in a manner which will delay it in achieving Completion of the Works or a Portion, the Contractor may claim an extension of time to the relevant Date for Completion.

10.8 Claim for Extension of Time

To claim an extension of time the Contractor must:

(a) within 14 days of the commencement of the occurrence causing the delay, submit a written claim to the Principal's Representative for an extension of time to the relevant Date for Completion, which:

(i) gives detailed particulars of:
A. the delay and the occurrence causing the delay; and
B. the activities that are critical to the maintenance of progress in the execution of the Contractor's Activities; and

(ii) states the number of days extension of time claimed together with the basis of calculating that period, including evidence that the:
A. conditions precedent to an extension of time in clause 10.9 have been met; and
B. occurrence will delay it in achieving Completion in the manner described in clause 10.7; and

(b) if the effects of the delay continue beyond the period of 14 days after the commencement of the occurrence causing the delay and the Contractor wishes to claim an extension of time in respect of the further delay, submit a further written claim to the Principal's Representative:

(i) every 14 days after the first written claim, or such other period as may be approved by the Principal's Representative in writing, until after the end of the effects of the delay; and

(ii) containing the information required by paragraph (a).

The Principal's Representative may, within 14 days of receiving the Contractor's claim or further claim for an extension of time for Completion, by written notice to the Contractor, request additional information in relation to the claim or further claim.
The Contractor must, within 14 days of receiving such request, provide the Principal's Representative with the information requested.

10.9 Conditions Precedent to Extension of Time

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

(a) the Contractor gives the notices and claims required by clauses 10.6(b) and 10.8 as required by those clauses;

(b) the Contractor complies with any request for additional information under clause 10.8 within the time required;

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

(d) the Contractor is actually, or will be, delayed:
   (i) prior to the Date for Completion of the Works or the Portion, by reason of one or more of the causes set out in clause 10.7(a) in the manner described in clause 10.7(a); or
   (ii) after the Date for Completion of the Works or the Portion, by reason of an act or omission of the Principal and the Principal's Representative (including any breach of Contract or Change directed by the Principal's Representative) in the manner described in clause 10.7(b).

If the Contractor fails to comply with the conditions precedent in this clause 10.9:

(e) the Principal will not be liable upon any Claim by the Contractor; and

(f) the 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.

10.10 Extension of Time

Subject to clause 10.11, if the conditions precedent in clause 10.9 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 Contractor within 28 days after the latest of the:

(a) Contractor's written claim under clause 10.8; and

(b) provision by the Contractor of any additional information regarding the claim required under clause 10.8.

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, but nothing in this paragraph will prejudice any right of the Contractor to damages.

10.11 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 10.10 to the extent that the Contractor:
(a) contributed to the delay; or
(b) failed to take all steps necessary both to preclude the cause of the delay and to avoid or minimise the consequences of the delay.

10.12 Unilateral Extensions

Whether or not the Contractor has made, or is entitled to make, a claim for an extension of time to any relevant Date for Completion, or is entitled to be, or has been, granted an extension of time to any relevant Date for Completion, under clause 10.10, the Principal's Representative may, in its absolute discretion, for any reason and at any time, from time to time by written notice to the Contractor and the Principal, unilaterally extend any Date for Completion by any period specified in a notice to the Contractor and the Principal.

The Principal's Representative is not required to exercise its discretion under this clause 10.12 for the benefit of the Contractor.

The discretion to grant an extension of time under this clause 10.12 may only be exercised by the Principal's Representative and the exercise or failure to exercise that discretion is not a "direction" which can be the subject of a Dispute pursuant to clause 15 or in any other way opened up, reviewed or exercised by any other person in any forum (including in any expert, arbitration or litigation proceedings).

10.13 Delay Damages

For each day by which the Date for Completion of the Works or a Portion is extended due to:

(a) a breach of this Contract by the Principal; or
(b) the cancellation of a Track Possession or power outage specified in the Contract as available for use by the Contractor:
   (i) less than 12 weeks prior to the time at which it was planned to commence; or
   (ii) with more than 12 weeks' notice, but without the provision of an alternative Track Possession or power outage at a time the Contractor is reasonably able to utilise, or
(c) a Variation the subject of a direction by the Principal's Representative under clause 6.2, except where that Variation is directed in the circumstances described in clause 8.2(c). The valuation of entitlements to money under clauses 3.5(c), 10.1, and 13.3 is not a Variation for the purposes of this clause,

the Contractor will be entitled to be paid the costs reasonably incurred by the Contractor as a direct result of the delay the subject of the extension of time, as determined by the Principal's Representative who must, where they are applicable, use the rates and prices in Schedule 1.

The amounts payable pursuant to this clause 10.13 will be a limitation upon the Principal's liability to the Contractor for any delay or disruption that:

(d) the Contractor encounters in carrying out the Contractor's Activities; and
(e) arises out of, or in any way in connection with, the breach of this Contract by the Principal,

and the Contractor will not be entitled to make, nor will the Principal be liable upon, any Claim in these circumstances other than for the amount which is payable by the Principal under this clause 10.13.
10.14 Suspension

The Principal's Representative may direct the Contractor to suspend and, after a suspension has been directed, to re-commence, the carrying out of all or a part of the Contractor's Activities.

If the suspension under this clause 10.14 arises as a result of:

(a) the Contractor's failure to carry out its obligations in accordance with this Contract (including where any process, procedure, test method, calculation, analysis or report required by this Contract has resulted in or will result in a non-conformance), the 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; or

(b) a cause other than the Contractor's failure to perform its obligations in accordance with this Contract:

(i) a direction to suspend under this clause 10.14 will entitle the Contractor to:
   A. be paid by the Principal the extra costs reasonably incurred by it as a direct result of the suspension as determined by the Principal's Representative; and
   B. an extension of time to any relevant Date for Completion where it is otherwise so entitled under clause 10;

(ii) the Contractor must take all steps possible to mitigate the extra costs incurred by it as a result of the suspension; and

(iii) the 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 other than as allowed under this clause 10.14(b).

11. Payment

11.1 Contractor's Payment Entitlements

(a) Subject to clause 16.12 and to any other right to set-off that the Principal may have, the Principal must pay the Contractor the Contract Sum and any other amounts expressly payable by the Principal to the Contractor under this Contract, in accordance with the procedure in this clause 11.

(b) The Contract Sum is not subject to rise and fall.

11.2 Payment Claims

Subject to clause 11.6, the Contractor must give the Principal's Representative a claim for payment on account of the Contract Sum:

(a) upon the 6th Business Day of each month;

(b) for the Completion Payment Claim within the time required by clause 11.9; and

(c) for the Final Payment Claim within the time required by clause 11.11.

Each claim for payment must:

(d) generally follow the form of the Payment Breakdown Schedule and otherwise be in such form as the Principal's Representative reasonably requires;
(e) include all the evidence reasonably required by the Principal's Representative of the amount of work completed in accordance with this Contract and the amount payable;

(f) for each monthly claim pursuant to clause 11.2(a) (a "Progress Claim"), set out the amount claimed for work completed to the date of the Progress Claim and details of how the amount has been calculated;

(g) be accompanied by:

(i) a statutory declaration by the Contractor, or where the Contractor is a corporation, by a representative of the Contractor who is in a position to know the facts attested to, in the form of Schedule 12, made out not earlier than the date of the payment claim;

(ii) a Contractor's Certificate of Construction Compliance, in the form of Schedule 19;

(iii) evidence, in relation to the unfixed plant and materials claimed in the Progress Claim, of:

A. ownership of the plant or materials;

B. security acceptable to the Principal in the form of the unconditional undertaking in Schedule 8 issued by an Institution approved by the Principal in an amount equal to the payment claimed for the plant and materials;

C. identification and labelling of the plant and materials as the property of the Principal;

D. adequate and secure storage and protection; and

E. insurance for the full replacement value of the plant and materials;

(iv) the programs and other information required to be prepared and submitted by the Contractor under clause 10.2;

(v) where clause 11.16(g) applies, the statement and the evidence (if any) required to be provided by the Contractor pursuant to that clause; and

(vi) such further information and evidence in respect of the payment claim as is reasonably required by the Principal's Representative.

The Contractor cannot include in any Progress Claim under this clause 11.1 any amount for the provision of Asset Management Information until all of the information has been submitted to the Principal in accordance with the Contract and to the satisfaction of the Principal, or a Claim which is barred by clause 17.6 or any other provision of this Contract.

The Contractor agrees with the Principal that the date prescribed in this clause 11.2 as the date on which the Contractor must make a payment claim is, for the purposes of section 8 of the SOP Act, the "reference date".

11.3 Payment Breakdown Schedules

The Principal's Representative must, within 10 Business Days of receiving a Progress Claim which complies with the requirements of clause 11.2, a Completion Payment Claim under clause 11.9 or a Final Payment Claim under clause 11.11, issue to the Contractor (on behalf of the Principal) and the Principal a payment schedule which, where it relates to a Progress Claim, identifies the Progress Claim to which it relates, and which sets out:
its determination of the value of the Contractor's Activities carried out in accordance with this Contract, using the methodology in clause 11.2(f) where the payment schedule relates to a Progress Claim;

(b) the amount already paid to the Contractor;

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

(d) the amount (if any) which the Principal's Representative believes to be then payable by the Principal to the Contractor on account of the Contract Sum and which the Principal proposes to pay to the Contractor; and

(e) if the amount in paragraph (d) is less than the amount claimed in the Progress Claim, Completion Payment Claim or Final Payment Claim:

(i) the reason why the amount in paragraph (d) is less than the amount claimed in the Progress Claim, Completion Payment Claim or Final Payment Claim; and

(ii) if the reason for the difference is that the Principal proposes to retain, deduct, withhold or set-off payment for any reason, the reason for the Principal retaining, deducting, withholding or setting-off payment.

The issue of a payment schedule by the Principal's Representative does not constitute approval of any work nor will it be taken as an admission or evidence that the part of the Works or Contractor's Activities covered by the payment schedule has been satisfactorily carried out in accordance with this Contract.

Failure by the Principal's Representative to set out in a payment schedule an amount, or the correct amount, which the Principal is entitled to retain, deduct, withhold or set-off from the amount which would otherwise be payable to the Contractor by the Principal will not prejudice the Principal's right to subsequently exercise its right to retain, deduct, withhold or set-off any amount under this Contract.

The Contractor agrees that the amount referred to in the payment schedule in respect of paragraph (d) above is, for the purposes of section 9 and 10 of the SOP Act, the amount of the "progress payment" (as defined in the SOP Act) calculated in accordance with the terms of this Contract to which the Contractor is entitled in respect of this Contract.

### 11.4 Payment

Subject to clauses 11.1, 11.6, 11.9, 11.11, 14.3, 14.6(c) and 16.12, the Principal must, within 15 Business Days after the Principal's Representative issues the payment schedule under clause 11.3, or within 15 Business Days after the Contractor complies with clause 11.6 (whichever is the later), pay the Contractor the amount set out in the payment schedule.

### 11.5 Payment on Account

A payment of moneys under clause 11.4 is not:

(a) an admission or evidence of the value of work or that work has been satisfactorily carried out in accordance with this Contract;

(b) an admission of liability; or

(c) approval by the Principal or the Principal's Representative of the Contractor's performance or compliance with this Contract,
but is only to be taken as payment on account.

11.6 Conditions Precedent

The Contractor is not entitled to make a payment claim under clause 11.2, and the Principal is not obliged to make a payment under clause 11.4, unless:

(a) the Contractor has:
   (i) complied with clauses 2.2(e)(i), 2.2(e)(ii) and 10.2, including the provision of the Contractor's Program;
   (ii) provided the Principal with the unconditional undertakings and the Parent Company Guarantee (if any) required under clause 2.6;
   (iii) provided the documents required by clause 11.2(g);
   (iv) effected or procured to be effected the insurances required to be effected by the Contractor by clauses 13.4, 13.5 and 13.8 and (if requested) provided evidence of this to the Principal's Representative; and
   (v) provided such evidence as the Principal's Representative may require that this Contract has been properly executed by or on behalf of the Contractor and that the Contractor is bound under this Contract; and

(b) the Contractor has done everything else that it is required to do under this Contract before being entitled to make a payment claim or receive payment.

The Principal is not obliged to make a payment under clause 11.4, unless the Contractor has submitted a claim for payment in accordance with clause 11.2 and provided any accompanying document or other information required by that clause.

11.7 Unfixed Plant and Materials

If the Contractor claims payment for plant or materials intended for incorporation in the Works but not yet incorporated, the Principal is not obliged to make payment for such "unfixed" plant or materials unless:

(a) the Contractor provides the evidence required in clause 11.2(g)(iii);
(b) the plant and materials are on the Site or are available for immediate delivery to the Site;
(c) the insurance held and the storage arrangements for the unfixed plant and materials are acceptable to the Principal's Representative; and
(d) the condition of the unfixed plant and materials has been confirmed in an inspection by the Principal's Representative.

The only such unfixed plant or materials to be allowed for in a payment schedule are those that have become or (on payment) will become the property of the Principal. Upon a payment against a payment schedule that includes amounts for unfixed plant and materials, title to the unfixed plant and materials included will vest in the Principal.

The security provided in accordance with clause 11.2(g)(iii) will be released once the applicable unfixed plant and materials are incorporated into the Works and are fit for their intended purpose.
11.8 Payment of Employees and Subcontractors

(a) When submitting any Progress Claim, Completion Payment Claim or Final Payment Claim, the Contractor must give the Principal's Representative a statutory declaration in accordance with clause 11.2(g)(i).

(b) If any moneys are shown as unpaid in the Contractor's statutory declaration under clause 11.2(g)(i), the Principal may withhold the moneys so shown until the Contractor provides evidence to the satisfaction of the Principal's Representative that the moneys have been paid to the relevant persons.

(c) If an employee or a Subcontractor obtains a court order in respect of the moneys payable to him, her or it in respect of his, her or its employment on, materials supplied for, or work performed with respect to, the Contractor's Activities, and produces to the Principal the court order and a statutory declaration that it remains unpaid, the Principal may (but is not obliged to) pay the amount of the order and costs included in the order to the employee or Subcontractor, and the amount paid will be a debt due from the Contractor to the Principal.

(d) If the Principal receives notice of any Insolvency Event in relation to the Contractor including the:
   (i) Contractor being placed under administration; or
   (ii) making of a sequestration order or a winding up order or order of receivership in respect of the Contractor,

the Principal will not make any payment to an employee or Subcontractor without the concurrence of the administrator, provisional liquidator, liquidator, trustee or official receiver, as the case may be, of the Contractor.

(e) Nothing in this clause 11.8 limits or otherwise affects the Principal's right under section 175B(7) of the *Workers Compensation Act 1987* (NSW), section 18(6) of Schedule 2 of part 5 of the *Pay-Roll Tax Act 2007* (NSW) or section 127(5) of the *Industrial Relations Act 1996* (NSW).

11.9 Completion Payment Claim

No later than 28 days after the issue of a Notice of Completion for the last Portion to reach Completion, the Contractor must lodge with the Principal's Representative a payment claim marked "Completion Payment Claim" stating the Contract Sum, all payments received on account of the Contract Sum and the balance, if any, due to the Contractor. The Completion Payment Claim must be accompanied by such information as the Principal's Representative may reasonably require.

With the Completion Payment Claim the Contractor must lodge with the Principal's Representative a First Statement of Outstanding Claims. The First Statement of Outstanding Claims must identify all Claims that the Contractor wishes to make against the Principal in respect of any fact, matter or thing arising out of, or in any way in connection with, the Contractor's Activities, the Works or this Contract which occurred prior to the date of the Completion Payment Claim.

The Completion Payment Claim and First Statement of Outstanding Claims must address all facts, matters or things arising out of, or in any way in connection with, the Contractor's Activities, the Works or this Contract up to the date of submission of the Completion Payment Claim in respect of all Claims included in the Completion Payment Claim and First Statement of Outstanding Claims.
11.10 Release after Completion Payment Claim

The Contractor releases the Principal from any Claim in respect of any fact, matter or thing arising out of, or in any way in connection with, the Contractor's Activities, the Works or this Contract that occurred prior to the date of submission of the Completion Payment Claim, except for any Claim which:

(a) has been included in the Completion Payment Claim or First Statement of Outstanding Claims which is given to the Principal's Representative within the time required by, and in accordance with clause 11.9; and

(b) has not been barred under another provision of this Contract.

11.11 Final Payment Claim

No later than 28 days after the expiration of the last Defects Rectification Period, the Contractor must lodge with the Principal's Representative a payment claim marked "Final Payment Claim" stating the Contract Sum, all payments received on account of the Contract Sum and the balance, if any, due to the Contractor. The Final Payment Claim must be accompanied by such information as the Principal's Representative may reasonably require.

With the Final Payment Claim the Contractor must lodge with the Principal's Representative a Second Statement of Outstanding Claims. The Second Statement of Outstanding Claims must identify all Claims that the Contractor wishes to make against the Principal in respect of any fact, matter or thing arising out of, or in any way in connection with, the Contractor's Activities or this Contract which occurred prior to the date of the Final Payment Claim.

The Final Payment Claim and Second Statement of Outstanding Claims must address all such facts, matters or things arising out of or in any way in connection with the Contractor's Activities the Works or this Contract up to the date of submission of the Final Payment Claim in respect of all Claims included in the Final Payment Claim and Second Statement of Outstanding Claims.

11.12 Release after Final Payment Claim

The Contractor releases the Principal from any Claim in respect of any fact, matter or thing arising out of, or in any way in connection with, the Contractor's Activities, the Works or this Contract that occurred prior to the date of submission of the Final Payment Claim, except for any Claim which:

(a) has been included in the Final Payment Claim or Second Statement of Outstanding Claims which is given to the Principal's Representative within the time required by, and in accordance with, clause 11.11; and

(b) has not been barred under another provision of this Contract.

11.13 Interest

If any moneys due to either party remain unpaid after the date upon which, or the expiration of the period within which, they should have been paid, then interest will be payable thereon from but excluding the date upon which, or the date at the end of the expiration of the period within which, they should have been paid to and including the date upon which the moneys are paid.

The rate of interest will be the rate from time to time prescribed for judgement debts under the NSW Supreme Court Rules. Interest will be compounded at six monthly intervals.
This will be the party's sole entitlement to interest, including damages for loss of use of, or the cost of borrowing, money.

11.14 Correction of Payment Breakdown Schedules

The Principal's Representative may, in any payment schedule:

(a) correct any error; and

(b) modify any assumptions or allowances made,

in any previous payment schedule issued by the Principal's Representative.

11.15 Costs Allowed by Contractor

Unless otherwise provided in this Contract, it is agreed that the Contractor has, and will be deemed to have, allowed in the Original Contract Price for and will be wholly responsible for the payment of:

(a) without limiting clause 18, all customs duties, tariffs and similar taxes (other than GST) and charges paid or payable on all items that are:

   (i) intended to be used for, or that are to be incorporated into, the Works; or

   (ii) otherwise used for the Contractor's Activities;

(b) any long service leave levy which may be payable in respect of the Contractor's Activities or the Works;

(c) all royalties, licence fees and similar payments for Intellectual Property in respect of:

   (i) the items that are intended to be used for, or that are to be incorporated into, the Works; and

   (ii) all Contract Documentation; and

(d) all fluctuations in the value of the Australian dollar against other currencies.

The Contractor will have no entitlement to any increase in the Contract Sum or otherwise to make any Claim against the Principal in respect of any of those amounts, whatever they may actually be.

11.16 Security of Payment Act

(a) When an adjudication occurs under the SOP Act and the Principal has paid an adjudicated amount to the Contractor:

   (i) the amount will be taken into account by the Principal's Representative in issuing a payment schedule under Clause 11.3; and

   (ii) if it is subsequently determined pursuant to the Contract that the 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 Contractor to the Principal upon demand and in respect of which the Contractor is not entitled to claim or exercise any set-off, counterclaim, deduction or similar right of defence.
For the purposes of section 17(3) of the SOP Act the Contractor irrevocably chooses the Institute of Arbitrators & Mediators, Australia, 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 Contract.

Without limiting clause 16.12, 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.

If the Principal withholds from money otherwise due to the 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 Contractor from the Principal; and

(ii) the period during which the Principal retains money due to the 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 Contractor has been unpaid; and

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

The Contractor agrees not to commence proceedings to recover any amount withheld by the Principal pursuant to a payment withholding request served on the Principal pursuant to Division 2A of the SOP Act.

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

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 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 Contractor must so notify the Principal within 5 days of the occurrence of the event in sub-paragraph (i) or (ii) above (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).

12. Completion

12.1 Progressive Inspection and Testing

At any time prior to Completion of a Portion, the Principal’s Representative may direct that any materials or work forming part of the Contractor’s Activities in respect of that Portion be tested. The Contractor must provide such assistance, documentation, records, personnel (including Subcontractors) and samples and make accessible such parts of the Contractor’s
Activities or Works as may be required. On completion of any test the Contractor must make
good the Contractor's Activities or Works so that they fully comply with this Contract.

The Principal's Representative may direct that any part of the Contractor's Activities or the
Works must not be covered up or made inaccessible without the Principal's Representative's
prior approval.

Tests must be conducted as provided in this Contract, or may be conducted by the Principal's
Representative or a person (that may include the Contractor) nominated by the Principal's
Representative.

Any testing required to be done by an independent authority must be carried out by an
authority recognised by the Joint Accreditation System of Australia and New Zealand.

Before conducting a test under this Contract the Principal's Representative or the Contractor
must give not less than two working days notice in writing to the other of the time, date and
place of the test. If the other party does not then attend, the test may nevertheless proceed.

Without prejudice to any other rights or remedies under this Contract, if the Contractor or the
Principal's Representative delays in conducting a test, the other, after giving reasonable
notice in writing of intention to do so, may conduct the test.

Each party must promptly make the results of tests available to the other and to the
Principal's Representative.

Where the Principal's Representative directs that materials or work be tested, the costs of
and incidental to testing must be valued under clause 6.4 and must be borne by the Principal
or paid by the Principal to the Contractor unless:

(a) this Contract provides that the Contractor must bear the costs or the test is one
which the Contractor was required to conduct other than pursuant to a direction
under clause 12.1;

(b) the test shows that the material or work is not in accordance with this Contract;

(c) the test is in respect of a part of the Contractor's Activities or the Works covered up
or made inaccessible without the Principal's Representative's prior approval where
such was required; or

(d) the test is consequent upon a failure of the Contractor to comply with a
requirement of this Contract.

Where the extra costs are not to be borne by the Principal, they will be borne by the
Contractor and will be a debt due from the Contractor to the Principal or paid by the
Contractor to the Principal on demand.

12.2 Contractor to Notify

The Contractor must give the Principal's Representative written notice 21 days before it
anticipates achieving Completion of the Works or a Portion.

The Contractor must prepare a detailed procedure for the progressive inspection by the
Principal's Representative of the Works or that Portion following the issue by the Contractor of
a notice under this clause 12.2.

This procedure must be submitted to the Principal's Representative and prior to the
inspection under clause 12.3(a) must, if required by the Principal's Representative, be
amended to ensure that the procedure provides the Principal's Representative with sufficient time to properly carry out this progressive inspection and the final inspection which the Principal's Representative is required to undertake under clause 12.3 to determine whether Completion of the Works or a Portion (as the case may be) has occurred.

12.3 Inspection before Completion

(a) The Principal's Representative and the Contractor's Representative must, within 7 days of receipt by the Principal's Representative of the notice referred to in clause 12.2, jointly inspect the Works or the Portion at a mutually convenient time.

(b) Following the joint inspection under clause 12.3(a), the Principal's Representative must issue a notice to the Principal and the Contractor either:

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

(ii) stating that it believes the Contractor is so far from achieving Completion of the Works or the Portion that it is not practicable to issue a list as contemplated in clause 12.3(b)(i).

(c) When the Principal's Representative issues a notice under either clause 12.3(b)(i) or clause 12.3(b)(ii), the Contractor must continue to proceed to bring the Works or the Portion to Completion and thereafter when the Contractor considers it has achieved Completion of the Works or the Portion, the Contractor must notify the Principal's Representative in writing by means of a Contractor's Certificate of Completion in the form of Schedule 20.

Thereafter the Principal's Representative and the Contractor's Representative must jointly inspect the Contractor's Activities at a mutually convenient time.

(d) Following the joint inspection under clause 12.3(c), the Principal's Representative must within 21 days of receipt of a notice under clause 12.3(c), or of receipt of a notice under clause 12.3(e), issue a notice to the Principal and the Contractor:

(i) if satisfied that Completion of the Works or the Portion has been achieved:

A. stating the date on which the Principal's Representative determines Completion of the Works or the Portion was achieved; and

B. containing a list of any minor Defects, of the type described in paragraph (a) of the definition of "Completion" in clause 1.1, that are apparent; or

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

A. containing a list of the items that are apparent and it believes must be completed before Completion of the Works or the Portion is achieved; or

B. stating that it believes the Contractor is so far from achieving Completion of the Works or the Portion that it is not practicable to issue a list as contemplated by clause 12.3(d)(ii)A.
12.4 Unilateral Issue of Notice of Completion

If at any time a notice required to be given by the Contractor to the Principal's Representative under either of clauses 12.3(c) or 12.3(e) is not given by the Contractor yet the Principal's Representative is of the opinion that Completion of the Works or a Portion has been achieved, the Principal's Representative may issue a Notice of Completion under clause 12.3(d)(i) for the Works or the Portion.

12.5 Hand Over upon Completion

The Contractor acknowledges that the Principal will require a progressive handover of the Works and that this handover will take place by the Contractor handing over each Portion once that Portion has reached Completion. Subject to clause 3.1(d), the Principal's obligations under clause 3.1(b) in respect of the Site will then cease in respect of so much of the Site, access to which was provided for that Portion which is handed over to the Principal.

12.6 Part of the Works or a Portion

If a part of the Works has reached Completion but another part of the Works has not reached Completion and the parties cannot agree upon the creation of new Portions, the Principal's Representative may determine that the respective parts will be Portions.

The Principal may, after the Contractor is given written notice by the Principal's Representative, occupy or use any part of the Works or a Portion although the whole of the Works or the Portion has not reached Completion.

If the Principal's Representative gives any such notice:

(a) the Principal must allow the Contractor reasonable access to the part of the Works or the Portion referred to in the notice and being occupied or used by the Principal, to enable the Contractor to bring the Works or the relevant Portion of which the area being occupied or used forms part to Completion; and

(b) this will not otherwise limit or affect the obligations of the parties under this Contract, including the obligation of the Contractor to achieve Completion of the Works or the relevant Portion of which the area being occupied or used forms part, by the relevant Date for Completion.

The interpretations of the terms Date for Completion, Date of Completion and Completion, and clauses 7.9, 9.12, 12 and 13, will apply separately to each Portion and references therein to the Works and to the Contractor's Activities will mean so much of the Works and the Contractor's Activities as is comprised in the relevant Portion.

12.7 Liquidated Damages for Delay in Reaching Completion

(a) Subject to clause 12.7(d), if Completion of the Works or a Portion has not occurred by the Date for Completion for the Works or the Portion, the Contractor must pay the Principal liquidated damages at the rates stated in Schedule 1 for every day after the Date for Completion up to and including:
(i) the Date of Completion; or

(ii) the date that this Contract is terminated under clause 14, whichever is first.

(b) The Contractor acknowledges that it has freely agreed that the liquidated damages provided for by clause 12.7(a) represent proper, fair and reasonable amounts recoverable by the Principal for its loss arising from the failure of the Contractor to achieve Completion of the Works or a Portion by the relevant Date for Completion.

(c) If clause 12.7(a) is found for any reason to be void, invalid or otherwise inoperative so as to disentitle the Principal from recovering liquidated damages, the Principal will be entitled to recover common law damages as a result of the Contractor failing to achieve Completion by the Date for Completion, but the Contractor’s liability for such damages (whether per day or in aggregate) will not be any greater than the liability which the Contractor would have had if clause 12.7(a) had not been void, invalid or otherwise inoperative.

(d) The Contractor’s aggregate liability under clauses 12.7(a) and 12.7(c) is limited to the amount set out in Schedule 1.

12.8 Final Completion

(a) The Contractor must give the Principal’s Representative written notice two months before it anticipates completing all the work to be completed prior to achieving Final Completion.

(b) The Principal’s Representative and the Contractor’s Representative must, within 28 days before the date the Principal’s Representative expects Final Completion to occur, but no earlier than 28 days before the end of the latest Defect Rectification Period, jointly inspect the Works at a mutually convenient time.

(c) Following the joint inspection under clause 12.8(a), the Principal’s Representative must issue a notice to the Principal and the Contractor containing a list of the items that are apparent and it believes must be completed before Final Completion is achieved.

(d) If the Principal’s Representative issues a notice under clause 12.8(c), the Contractor must continue to bring the Works to Final Completion and thereafter when the Contractor considers it has achieved Final Completion, the Contractor must notify the Principal’s Representative in writing by means of a Contractor’s Certificate of Final Completion in accordance with Schedule 21. Thereafter, the Principal’s Representative and the Contractor’s Representative must jointly inspect the Works at a mutually convenient time.

(e) Following the joint inspection under clause 12.8(d), the Principal’s Representative must within 21 days of receipt of a notice under clause 12.8(d), or of receipt of a notice under clause 12.8(f), issue a notice to the Principal and the Contractor:

(i) if satisfied that Final Completion has been achieved, stating the date on which the Principal’s Representative determines Final Completion was achieved; or

(ii) if not satisfied that Final Completion has been achieved:

A. containing a list of the items which it believes must be completed before Final Completion is achieved; or
B. stating that it believes the Contractor is so far from achieving Final Completion that it is not practicable to issue a list as contemplated by clause 12.8(e)(ii)A.

(f) If the Principal's Representative issues a notice under clause 12.8(e)(ii)A or clause 12.8(e)(ii)B, the Contractor must continue to proceed to bring the Works to Final Completion and thereafter when it considers it has achieved Final Completion of the Works the Contractor must notify the Principal's Representative in writing after which the second sentence of clause 12.8(d), clause 12.3(e) and this clause 12.8(f) will reapply.

12.9 Effect of Notice of Completion or Final Completion

A notice issued under clause 12.3(d)(i) or 12.8(e)(i) will not:

(a) constitute approval by the Principal or the Principal's Representative of the Contractor's performance of its obligations under this Contract;

(b) be taken as an admission or evidence that the Works or the Portion complies with the requirements of this Contract; or

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

13. Care of the Works, Risks and Insurance

13.1 Care of the Works

Except where it arises from an Excepted Risk, and without limiting the generality of the Contractor's obligations, the Contractor:

(a) from and including the earlier of the date of commencement of work and the date on which the Contractor is given access to the Site, or a part of the Site, until 4:00pm on the Date of Completion of a Portion, will be responsible for the care of and will bear the risk of, and indemnify the Principal against any loss of, or damage to, the Contractor's Activities in respect of that Portion.

(b) after the time after which the Contractor ceases to be responsible under paragraph (a) for the care of a part of the Works or any other thing referred to in paragraph (a), will bear the risk of, and indemnify the Principal against, any loss of or damage to that part of the Works or other thing, arising from:

(i) any act or omission of the Contractor during the Defects Rectification Period (including any extension under clause 8.6) or any other Contractor's Activities; or

(ii) any event which occurred while the Contractor was responsible for the care of the relevant part of the Works or other thing under paragraph (a) in connection with the Contractor's Activities.

13.2 Indemnity

The Contractor must indemnify the Principal against:

(a) any loss of or damage to property of the Principal;

(b) any liability to or claims by a third party in respect of loss of or damage to property, the loss of use of or access to property, or injury to or death of persons; and

(c) without limiting or otherwise affecting paragraph (a), any loss or damage to existing property in or upon which the Contractor's Activities are being carried out,
caused by, or arising out of, or in any way in connection with, the Contractor's Activities, but the Contractor's responsibility to indemnify the Principal will be reduced proportionally to the extent than an act or omission by the Principal, the Principal's Representative, other agents of the Principal or, provided that the Contractor has complied with its obligations under clause 2.8(b)(ii), an Other Contractor contributed to the loss, damage, injury or death.

The indemnity in this clause 13.2 will not:

(d) exclude any other right of the Principal to be indemnified by the Contractor; or
(e) apply to the extent to which the Contractor must indemnify the Principal under clause 13.1.

13.3 Reinstatement

During the period during which the Contractor bears the risk of loss or damage, and while the Contractor is responsible for its care, if loss or damage occurs to anything for which the Contractor is responsible under clause 13.1, the Contractor must:

(a) subject to paragraph (b), promptly replace or otherwise make good the loss or repair the damage; and
(b) where the loss or damage arises from an Excepted Risk, without fault or omission on the part of the Contractor, only comply with paragraph (a) to the extent directed by the Principal's Representative.

The Contractor will bear the cost of such replacement, making good or repair except to the extent that the loss or damage arises from an Excepted Risk, in which event this replacement, making good or repair will, to the extent the loss or damage arises from an Excepted Risk (but subject to paragraph (b)), be treated as if it were a Variation the subject of a direction by the Principal's Representative and clause 6.4 applied.

13.4 Works Insurance - Alternative 1

This alternative applies if so stated in the Contract Particulars.

Upon entering into this Contract, the policies of insurance included in Exhibit C will come into effect and will cover the Contractor, the Principal, the Principal's Representative and all subcontractors employed by the Contractor in respect of the Contractor's Activities.

This insurance is subject to the exclusions, conditions and excesses noted on the policies, and is deemed to satisfy the Principal's obligation to effect insurance. The Contractor acknowledges and agrees that it was provided with a copy of terms of the insurance policies in Exhibit C prior to the date of this Contract and it reviewed and examined the terms of those insurance policies and:

(a) has satisfied itself as to the nature and extent of the cover provided by those insurance policies;
(b) must, if required by the Contractor, take out at the Contractor's expense any insurance to:
   (i) insure any risks not insured by the insurance policies in Exhibit C; or
   (ii) cover any exclusions, conditions or excesses in the insurance policies in Exhibit C,
   which the Contractor wants to insure against or cover; and
where it bears the risk of the relevant loss or damage, or is required to indemnify the Principal, agrees to bear the cost of any excesses in the insurance policies in Exhibit C.

13.5 Works Insurance - Alternative 2

This alternative applies if so stated in the Contract Particulars.

Before commencing the Contractor's Activities, the Contractor must insure all the things referred to in clause 13.1 against loss or damage resulting from any cause until the Contractor ceases to be responsible for their care.

Without limiting the generality of the obligation to insure, such insurance must cover the Contractor's liability under clause 13.3 and things in storage off site and in transit to the site but may exclude:

(a) the cost of making good fair wear and tear or gradual deterioration, but shall not exclude the loss or damage resulting therefrom;
(b) the cost of making good faulty workmanship and materials, but shall not exclude the loss or damage resulting therefrom;
(c) consequential loss of any kind, but shall not exclude loss of or damage to the Works;
(d) damages for delay in completing or for the failure to complete the Works;
(e) loss or damage resulting from ionising radiations or contamination by radioactivity from any nuclear fuel or from any nuclear waste from the combustion of nuclear fuel resulting from any cause;
(f) loss or damage resulting from the Excepted Risk referred to in paragraph (a) of the definition of Excepted Risk.

The insurance cover must be for an amount not less than the aggregate of the:

(g) Contract Sum;
(h) provision in Schedule 1 to provide for costs of demolition and removal of debris;
(i) provision in Schedule 1 for consultants' fees and Principal's consultants' fees;
(j) value in Schedule 1 of any materials or things to be supplied by the Principal for the purposes of the Contractor's Activities; and
(k) additional amount or percentage in Schedule 1 of the total of the items referred to in sub-paragraphs (a) to (d) of this paragraph.

Insurance shall be in the joint names of the parties, must cover the parties, consultants and subcontractors whenever engaged in the Contractor's Activities for their respective rights, interests and liabilities and, except where the Contract otherwise provides, must be with an insurer and in terms both approved in writing by the Principal (which approvals must not be unreasonably withheld).

13.6 Public Liability Insurance - Alternative 1

This alternative applies if so stated in the Contract Particulars.
Upon entering into this Contract, the policies of insurance included in Exhibit C will come into effect and will cover the Contractor, the Principal, the Principal's Representative and all subcontractors employed by the Contractor in respect of the Contractor's Activities.

This insurance is subject to the exclusions, conditions and excesses noted on the policies, and is deemed to satisfy the Principal's obligation to effect insurance. The Contractor acknowledges and agrees that it was provided with a copy of terms of the insurance policies in Exhibit C prior to the date of this Contract and it reviewed and examined the terms of those insurance policies and:

(a) has satisfied itself as to the nature and extent of the cover provided by those insurance policies;

(b) must, if required by the Contractor, take out at the Contractor's expense any insurance to:
(i) insure any risks not insured by the insurance policies in Exhibit C; or
(ii) cover any exclusions, conditions or excesses in the insurance policies in Exhibit C,

which the Contractor wants to insure against or cover; and

(c) where it bears the risk of the relevant loss or damage, or is required to indemnify the Principal, agrees to bear the cost of any excesses in the insurance policies in Exhibit C.

13.7 Public Liability Insurance – Alternative 2

This alternative applies if so stated in the Contract Particulars.

Before commencing the Contractor's Activities, the Contractor must effect and maintain for the duration of the Contract, a public liability policy.

The policy must:
(a) be in the joint names of the parties;
(b) cover the:
(i) respective rights and interests; and
(ii) liabilities to third parties,

of the parties, the Principal's Representative, consultants and subcontractors from time to time, whenever engaged in the Contractor's Activities;

(c) cover the parties' respective liability to each other for loss or damage to property (other than property required to be insured by clause 13.7 Alternative 2) and the death of or injury to any person (other than liability which the law requires to be covered under a workers compensation insurance policy);

(d) be endorsed to cover the use of any Construction Plant not covered under a comprehensive or third party motor vehicle insurance policy;

(e) provide insurance cover for an amount in respect of any one occurrence of not less than the sum in Schedule 1; and

(f) be with an insurer and otherwise in terms both approved in writing by the Principal (which approvals must not be unreasonably withheld).
13.8 Contractor's Other Insurance Obligations

The effecting of insurance will not limit the liabilities or obligations of a party under any other provision of this Contract.

The Contractor must, or in the case of asbestos liability insurance, either the Contractor or its specialist asbestos removal Subcontractor must (if required by clause 13.8(a)(iii) below), before the Contractor commences the Contractor's Activities or as otherwise required by this Contract:

(a) effect and have in place the following insurance with insurers and on terms satisfactory to the Principal's Representative:

(i) workers compensation insurance, employers indemnity insurance or similar insurance, in accordance with the laws of any State, Territory or other jurisdiction where the Contractor's Activities are being performed;

(ii) an insurance policy covering loss or damage to the Construction Plant;

(iii) if the Contractor's Activities include any work involving asbestos or asbestos decontamination, including stripping, encapsulation or removal, asbestos liability insurance;

(iv) professional indemnity insurance;

(v) motor vehicle insurance covering all mechanically propelled vehicles used in connection with the Contractor's Activities, whether registered or required under the law to be registered, extended specifically to cover the transportation of items and substances, and including:

A. insurance against personal injury or death, as required under all applicable Laws; and

B. in addition to the public liability insurance required under this Contract, insurance for third party property damage and personal injury or death;

(vi) if the things the care of which the Contractor is responsible for under clause 13.1 are in transit (including storage and transhipment) from any place outside of Australia, marine transit insurance on an "all risks" basis, including war, riots, strikes and civil commotion coverage, covering those things until they are delivered to the Site, unpacked, inspected and confirmed as in sound condition;

(vii) any insurance that the Contractor is required to obtain by virtue of any Law or Change in Law;

(viii) appropriate insurance (for replacement value) in respect of all materials being or to be fabricated overseas for the Works and any other insurance that the Principal may reasonably require the Contractor to obtain, for amounts not less than the amounts (if any) referred to in Schedule 1;

(b) ensure the Construction Plant insurance, motor vehicle insurance (except for compulsory third party insurance for bodily injury as required by the law), asbestos liability insurance, marine liability insurance and any insurance required by sub-paragraph (a)(vii):

(i) are policies in the joint names of the Principal and the Contractor, and cover the Principal, the Principal's Representative (including any
appointee under clauses 9.2 or 9.3), the Contractor and all its Subcontractors, for their respective rights and interests, and their liabilities to third parties and liability to each other;

(ii) cover loss or damage to property (other than property described in clause 13.1 to be covered by the insurance policies required by clause 13.4) and the death of or injury to any person (other than liability which the law requires to be covered under a workers compensation insurance or similar insurance policy), arising out of, or in any way in connection with, the Contractor's Activities;

(iii) includes a cross-liability clause in accordance with clause 13.12; and

(iv) is for an amount in respect of any occurrence not less than the amount referred to in Schedule 1;

(c) ensure the asbestos liability insurance is in place at least 60 days before any work involving asbestos or asbestos decontamination work commences;

(d) ensure that any insurance policy required by sub-paragraph (a)(vii) is in place at least 60 days before the Contractors' Activities covered by such policies commence;

(e) ensure the professional indemnity insurance:

(i) covers claims for breach of professional duty (whether owed in contract or otherwise) by the Contractor or its Subcontractors in carrying out the Contractor's Activities;

(ii) covers the Contractor for liability to the Principal for a minimum of the amount referred to in paragraph (a) per claim for loss (whether economic loss only or other loss) in a single claim arising from errors or omissions in:

A. design or documentation of the Works or the Temporary Works; or

B. other professional services,
carried out by the Contractor or any of its Subcontractors; and

(iii) includes at least one automatic reinstatement of the total limit of liability per annum after claims have been paid;

(f) in relation to the workers compensation insurance or similar insurance:

(i) where permitted by law, extend the insurance policy to provide indemnity to the Principal for its statutory liability to the Contractor's employees;

(ii) ensure that each of its Subcontractors has such workers compensation insurance or similar insurance covering the Subcontractor's employees; and

(iii) ensure it insures against liability for death of or injury to persons employed by the Contractor or its Subcontractors as required by any Law, including liability by statute and common law for an amount not less than the amount stated in Schedule 1 (if any) for any one event, subject to the maxima or minima imposed by relevant Law; and

(g) in relation to marine transit insurance, ensure that the policy:
(i) is in the joint names of the Principal and Contractor, and covers the Principal, the Principal's Representative, the Contractor and all its Subcontractors, for their respective rights and interests;

(ii) includes a cross-liability clause in accordance with clause 13.12; and

(iii) includes a delayed unpacking clause and a 50:50 clause.

13.9 General Insurance Requirements

The Contractor must:

(a) in respect of any insurance policy (including an insurance policy which this Contract requires the Contractor to procure to be effected by a Subcontractor) which it is required to effect pursuant to this Contract and where required by the Principal's Representative, provide the Principal's Representative (or other person nominated for this purpose by the Principal's Representative) with:

(i) a certificate of currency satisfactory to the Principal's Representative demonstrating that the policy is current and in compliance with the Contractor's obligation to insure, or (where relevant) a licence as a self-insurer or other proof of being a self-insurer under the Workers Compensation Act 1987 (Cth); and

(ii) an opportunity to view the original of the insurance policy and any other evidence which may be reasonably necessary to satisfy the Principal's Representative that the policy is current and complies with the requirements of this Contract;

(b) ensure that (except for professional indemnity or workers compensation or similar insurance):

(i) the Principal receives at least 30 days notice of any cancellation or material change of any insurance policy effected under clause 13.4 or 13.8(a);

(ii) a notice of claim given to the insurer by the Principal, the Contractor or a Subcontractor will be accepted by the insurer as a notice of claim by the Principal, the Contractor and the Subcontractor, and;

(iii) upon becoming aware of any fact, matter or thing entitling the insurer to cancel the policy, give immediate notice in writing to the Principal about that fact, matter or thing at least 30 days prior to the insurer giving any notice of cancellation; and

(c) ensure that it:

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

(ii) where required, rectifies anything which might prejudice any insurance;

(iii) reinstates an insurance policy if it lapses;

(iv) does not cancel, vary or allow an insurance policy to lapse without the prior written consent of the Principal's Representative;

(v) immediately notifies the Principal's Representative of any event that may result in an insurance policy lapsing or being cancelled, and replaces that insurance policy prior to it 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.

If the Contractor fails to:

(d) provide copies of any insurance policy (including an insurance policy which this Contract requires the Contractor to procure to be effected by a Subcontractor) which the Contractor is required to effect together with evidence satisfactory to the Principal's Representative that the policy is current; or

(e) effect or procure to be effected insurance which is with insurers and on terms satisfactory to the Principal's Representative,

as required by clauses 13.4, 13.8 or this clause 13.9, the Principal may, at its sole discretion and without prejudice to any other rights that it may have, take out that insurance and the cost will be a debt due from the Contractor to the Principal.

The Principal may refuse payment until the Contractor produces evidence of compliance with its insurance obligations under clause 13.4 and 13.8 to the satisfaction of the Principal. The rights given by clause 13.9 are in addition to any other right.

13.10 Period of Insurance

The insurance the parties are required to have in place under this clause 13 must be maintained:

(a) in the case of the works insurance policy required by clause 13.4, so as to provide cover until the Contractor ceases to be responsible under clause 13.1 for the care of anything;

(b) in the case of the Construction Plant insurance, until the Contractor ceases to bear the risk of loss of or damage to anything under clause 13.1, and at least until the final payment schedule is issued under clause 11.3;

(c) in the case of the public liability insurance, workers compensation insurance and motor vehicle insurances, until the later of:

(i) the end of the last Defects Rectification Period (including any extension under clause 8.6); and

(ii) the date upon which all Defects have been rectified in accordance with this Contract;

(d) in the case of professional indemnity insurance, before commencing work covered by the policy until at least the period specified in Schedule 1 after the final payment schedule is issued by the Principal's Representative under clause 11.3;

(e) in the case of asbestos liability insurance, marine transit insurance, marine liability insurance and insurance required under clause 13.8(a)(viii), for so long as there is a risk that an event covered by the insurance may occur in relation to the Works or the Contractor's Activities; and

(f) in the case of insurance required under clause 13.8(a)(viii), during the period required by any Law.

13.11 Notice of Potential Claim

The Contractor must:
(a) as soon as possible inform the Principal in writing of any occurrence that may give rise to a claim under an insurance policy required by this Contract (except for the professional indemnity insurance policy);

(b) keep the Principal informed of subsequent developments concerning the claim; and

(c) ensure that its Subcontractors similarly inform the Contractor and the Principal in respect of occurrences that may give rise to a claim.

Where the Principal has effected a policy of insurance, the Principal will similarly inform the Contractor.

13.12 Cross Liability

Where this Contract requires insurance to be effected in joint names the party effecting the insurance must ensure that the insurance policy provides that:

(a) insofar as the policy may cover more than one insured, all insuring agreements and endorsements (with the exception of limits of liability) will operate in the same manner as if there were a separate policy of insurance covering each named insured;

(b) the insurer waives all rights, remedies or relief to which it might become entitled by subrogation against any of the parties covered as an insured;

(c) failure by any insured to observe and fulfil the terms of the policy will not prejudice the insurance in regard to any other insured;

(d) any non-disclosure by one insured does not prejudice the right of any other insured to claim on the policy; and

(e) a notice to the insurer by one insured will be deemed to be notice by all insured parties.

14. Default or Insolvency

14.1 Contractor's Default

If the Contractor commits a breach of contract referred to below, the Principal may give the Contractor a written notice.

The breaches by the Contractor to which this clause applies are:

(a) not commencing or not progressing the Contractor's Activities regularly and diligently in accordance with the requirements of this Contract, in breach of clause 10.1;

(b) suspension of work, or failing to proceed with the Contractor's Activities with due expedition and without delay, in breach of clause 10.1;

(c) failing to provide the security, in breach of clause 2.6;

(d) failing to provide evidence of insurance, in breach of clause 13;

(e) failing to use the materials or standards of workmanship required by this Contract, in breach of clause 4.1;

(f) not complying with any direction of the Principal's Representative made in accordance with this Contract, in breach of clause 9.1(a);
(g) not complying with the requirements of this Contract regarding the Contract Management Plan in a material respect;
(h) any other failure to comply with a material obligation under the Contract; or
(i) not comply with its obligations under the Contract or the TfNSW Standard Requirements regarding work health and safety; or
(j) the failure to comply with all applicable Law, including the failure to comply with, carry out and fulfill the conditions and requirements of all Authority Approvals in breach of clause 2.2(g).

Nothing in this clause 14 limits the Principal's rights under clause 2.9(d).

14.2 Contents of Notice

A written notice under clause 14.1 must:
(a) state that it is a notice under clause 14.1;
(b) specify the alleged breach;
(c) require the Contractor to remedy the breach or, in the case of a notice by the Principal where the breach is not capable of being remedied, make other arrangements satisfactory to the Principal; and
(d) specify the time and date by which the Contractor must remedy the breach or make other arrangements satisfactory to the Principal (which time must not be less than 21 clear days after the notice is given).

14.3 Rights of the Principal

If, by the time specified in a notice under clause 14.1, the Contractor fails to remedy the breach or make arrangements satisfactory to the Principal, the Principal may, by notice in writing to the Contractor:
(a) take out of the hands of the Contractor the whole or part of the work remaining to be completed; or
(b) terminate this Contract.

Upon giving a notice under clause 14.1, the Principal may suspend payments to the Contractor until the date upon which the Contractor remedies the breach or makes arrangements satisfactory to the Principal.

If the Principal exercises the right under paragraph (a), the Contractor will not be entitled to any further payment in respect of the work taken out of the hands of the Contractor unless a payment becomes due to the Contractor under clause 14.5.

If the Principal takes work out of the hands of the Contractor under paragraph (a) the Principal may complete that work and the Principal may without payment of compensation take possession of such of the Construction Plant, Temporary Works and other things on or in the vicinity of the Site as are owned by the Contractor and are reasonably required by the Principal to facilitate completion of the work.

If the Principal takes possession of Construction Plant, Temporary Works or other things, the Principal will maintain them and, subject to clause 14.5, on completion of the work the Principal will return to the Contractor the Construction Plant, Temporary Works and any things taken under this clause which are surplus.
14.4 Insolvency

If an Insolvency Event occurs:

(a) to the Contractor;
(b) where the Contractor comprises more than one person, any one of those persons;
or
(c) to a person specified in Schedule 1,

then, whether or not the Contractor is then in breach of this Contract, the Principal may, without giving a notice under clause 14.1, exercise the right under clause 14.3(a) or 14.3(b).

14.5 Principal's Entitlements after Termination

When work taken out of the hands of the Contractor under clause 14.3(a) is completed the Principal's Representative will ascertain the cost incurred by the Principal in completing the work and will issue a certificate certifying the amount.

If the cost incurred by the Principal is greater than the amount that would have been paid to the Contractor if the Contractor had completed the work, the difference will be a debt due from the Contractor to the Principal. If the cost incurred by the Principal is less than the amount that would have been paid to the Contractor if the Contractor had completed the work, the difference will be a debt due to the Contractor from the Principal.

If the Contractor is indebted to the Principal, the Principal may retain Construction Plant, Temporary Works or other things taken under clause 14.3 until the debt is met. If after reasonable notice, the Contractor fails to pay the debt, the Principal may sell the Construction Plant, Temporary Works or other things and apply the proceeds to satisfaction of the debt and the costs of sale. Any excess will be paid to the Contractor.

14.6 Principal's Rights after Termination

Subject to clause 14.11, if the Principal terminates this Contract under clauses 2.9(d), 14.3 or 14.4, or if the Contractor repudiates this Contract and the Principal otherwise terminates this Contract the Principal will:

(a) be entitled to take over and use, or require the Contractor to remove from the Site or any area affected by the Works, any Construction Plant and Temporary Works and all materials, equipment and other things intended for the Works;
(b) be entitled to require the Contractor to novate to the Principal or the Principal's nominee, any or all Subcontracts between the Contractor and the Subcontractors as required by the Principal;
(c) not be obliged to make any further payments to the Contractor, including any money that is the subject of a payment claim under clause 11.2 or a payment schedule under clause 11.3;
(d) be absolutely entitled to call upon and retain the proceeds of any unconditional undertaking held under clause 2.6; and
(e) be entitled to recover from the Contractor any costs, expenses, losses or damages incurred or suffered by it as a result of, or arising out of, or in any way in connection with, such termination; and
(f) be entitled to require the Contractor to immediately hand over to the Principal's Representative all copies of:
14.7 Contractor's Rights after Termination

If the Principal repudiates this Contract and the Contractor terminates this Contract, the Contractor will:

(a) only be entitled to the payment of damages; and

(b) not be entitled to any payment on a quantum meruit basis.

This clause 14.7 will not apply to the Principal exercising or attempting to exercise one of the powers conferred on it by clauses 14.3 or 14.4 or determining or purporting to determine this Contract at common law where such exercise, determination or attempted exercise or determination was wrongful. The rights of the parties in the case of any such an exercise, determination or attempted exercise or determination will be as set out in clause 14.10.

This clause 14.7 will survive the termination of this Contract.

14.8 Termination for Convenience

Without prejudice to any of the Principal's other rights or entitlements or powers under this Contract, the Principal may:

(a) at any time for its sole convenience, and for any reason, by written notice to the Contractor terminate this Contract effective from the time stated in the notice or if no such time is stated, at the time the notice is given to the Contractor; and

(b) thereafter, at its absolute discretion complete the uncompleted part of the Works either itself or by engaging Other Contractors.

14.9 Payment for Termination for Convenience

If the Principal terminates this Contract under clause 14.8, the Contractor:

(a) will be entitled to payment of the following amounts as determined by the Principal's Representative:

   (i) for work carried out prior to the date of termination, the amount which would have been payable if this Contract had not been terminated and the Contractor submitted a payment claim under clause 11.2 for work carried out to the date of termination;

   (ii) the cost of plant and materials reasonably ordered by the Contractor for the Works and for which it is legally bound to pay provided that:

      A. the value of the plant or materials have not been previously paid or included in the amount payable under sub-paragraph (a)(i); and

      B. title in the plant and materials vests in the Principal upon payment;
(iii) the reasonable cost of removing from the Site all labour, Construction Plant, Temporary Works (where required by the Principal) and other things used in the Contractor’s Activities that are not part of, or to be part of, the Works;

(iv) the costs reasonably incurred by the Contractor in the expectation of completing the whole of the Contractor’s Activities and not included in any other payment by the Principal; and

(v) the amount specified in Schedule 1, for all overheads and profit associated with, and to the extent not included in, the work and costs determined under sub-paragraphs (a)(ii), (a)(iii) and (a)(iv);

(b) must:

(i) take all steps possible to mitigate the costs referred to in sub-paragraphs (a)(ii) and (a)(iii); and

(ii) immediately hand over to the Principal’s Representative all copies of:

A. any documents provided by the Principal to the Contractor;

B. all Contract Documentation prepared by the Contractor to the date of termination (whether complete or not); and

C. any other documents or information in existence that is to be provided to the Principal under the terms of this Contract.

To the extent it has not had recourse to them, the Principal will return all unconditional undertakings then held by it under clause 2.6 when the Contractor has complied with all its obligations under this clause.

The amount to which the Contractor is entitled under this clause 14.9 will be a limitation upon the Principal’s liability to the Contractor arising out of, or in any way in connection with, the termination of this Contract and the Principal will not be liable to the Contractor upon any Claim arising out of, or in any way in connection with, the termination of this Contract other than for the amount payable under this clause 14.9.

This clause 14.9 will survive the termination of this Contract by the Principal under clause 14.8.

14.10 Deemed Termination

If the Principal:

(a) exercises or attempts to exercise any right or power conferred on it by clauses 14.3 or 14.4; or

(b) determines or purports to determine this Contract at common law,

and it is subsequently found by any court or other process under clause 15 that such exercise, determination or attempted exercise or determination was wrongful or is itself a repudiation of the Contract by the Principal, such exercise, determination or attempted exercise or determination will be deemed to have been a termination in accordance with clause 14.8 and the Contractor’s sole rights in such circumstances will be those set out in clause 14.9.
14.11 Preservation of Rights

Subject to clauses 14.7 and 14.10, nothing in this clause 14 or that the Principal does or fails to do pursuant to this clause 14 will prejudice the right of the Principal to exercise any right or remedy (including recovering damages or exercising a right of set-off under clause 16.12) which it may have where the Contractor breaches (including repudiates) this Contract.

14.12 Termination by Frustration

If under the law this Contract is frustrated:

(a) the Contractor must immediately hand over to the Principal's Representative all copies of:

(i) any documents provided by the Principal to the Contractor;

(ii) all Contract Documentation prepared by the Contractor (whether complete or not); and

(iii) any other documents or information in existence that is to be provided to the Principal under the terms of this Contract; and

(b) the Principal will:

(i) pay the Contractor the following amounts as determined by the Principal's Representative:

A. an amount calculated in accordance with clause 14.9(a)(i) for work carried out prior to the date of frustration;

B. the costs calculated in accordance with the terms of, and subject to the conditions in, clauses 14.9(a)(ii); and

C. the costs calculated in accordance with the terms of clauses 14.9(a)(iii) and 14.9(a)(iv); and

(ii) to the extent it has not had recourse to them, return all unconditional undertakings then held by it under clause 2.6 when the Contractor has complied with its obligations under this clause.

The amount to which the Contractor is entitled under this clause 14.12 will be a limitation upon the Principal's liability to the Contractor arising out of, or in any way in connection with, the frustration of this Contract and the Principal will not be liable to the Contractor upon any Claim arising out of, or in any way in connection with, the frustration of this Contract other than for the amount payable under this clause 14.12.

Without limiting any other provision of this Contract, this clause 14.12 will survive the frustration of this Contract.

15. Disputes

15.1 Notice of Dispute

If a dispute or difference arises between the Contractor and the Principal or between the Contractor and the Principal's Representative in respect of any fact, matter or thing arising out of, or in any way in connection with, the Contractor's Activities, the Works or this Contract, or either party's conduct before the date of this Contract, ("Dispute") the Dispute must be determined in accordance with the procedure in this clause 15.
Where such a Dispute arises, either party may give a notice in writing to the Principal's Representative and the other party specifying:

(a) the Dispute;
(b) particulars of the party's reasons for being dissatisfied; and
(c) the position which the party believes is correct.

Where the notice is given by the Contractor, if the Contractor fails to provide sufficient particulars of the Dispute to enable the Principal's Representative to properly consider the matter, then the Principal's Representative may request the Contractor to provide further particulars of the Dispute in which event the Contractor must provide the further particulars within 14 days of receipt of the request to provide the further particulars.

15.2 Time for Submitting Notice Concerning Principal's Representative's Direction

If the Contractor wishes to have a direction by the Principal's Representative under one of the clauses referred to in Schedule 1 opened up, reviewed, decided and substituted the Contractor must give the notice in writing under clause 15.1 in respect of the Dispute to the Principal and the Principal's Representative within 14 days of the date of the direction.

If the Contractor fails to give such a notice to the Principal and the Principal's Representative within the time period required:

(a) the direction will be final and binding and will not be capable of being challenged, opened up or reviewed in any forum; and

(b) where the direction relates to the rejection or deemed rejection of a Claim pursuant to clause 17.4, the Claim will be barred in accordance with clause 17.6.

15.3 Response to Notice of Dispute

Where a notice of dispute has been given in accordance with clause 15.1 and 15.2 (where applicable) then the party to whom the notice of dispute is addressed must, within 21 days of the date of:

(a) receipt of the notice; or

(b) if any further particulars have been requested under clause 15.1, receipt of those particulars,

provide a response in writing indicating whether it agrees with the position set out in the notice of dispute.

15.4 Executive Negotiation

(a) If the Dispute is not resolved within 14 days of:

(i) the date of receipt of the response to the notice of dispute; or

(ii) if no response is received, the date specified for the provision of a response pursuant to clause 15.3,

either party may by notice in writing refer the Dispute to the persons described in Schedule 1 who must:

(iii) meet and undertake genuine and good faith negotiations with a view to:

A. clarifying and narrowing the issues in dispute in the event that litigation is commenced in respect of the Dispute; and
B. resolving the Dispute; and
   
   (iv) if they cannot resolve the Dispute, endeavour to agree upon a procedure to resolve the Dispute.

   (b) If appropriate in the circumstances, at or prior to the meeting the parties will exchange documents critical to the resolution of the Dispute.

15.5 Litigation

Whether or not the persons described in Schedule 1 have complied with clause 15.4(a), if the Dispute is not resolved, or no agreement on a procedure to resolve the Dispute has been reached, within 14 days after the Dispute has been referred to those persons under clause 15.4, or within such longer period of time as these persons may agree in writing, either party may commence litigation in respect of the Dispute.

15.6 Survive Termination

This clause 15 will survive the termination of this Contract.

15.7 Continuation of Work

Despite the existence of a Dispute between the parties this Contract, the Contractor must:

(a) continue to carry out the Contractor's Activities; and

(b) otherwise comply with its obligations under this Contract.

16. General

16.1 Notices

(a) Any notices contemplated by this Contract must be in writing and delivered to the relevant address or sent to the facsimile number shown in Schedule 1 (or to any new address or facsimile number that a party notifies to the others).

(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.

16.2 Governing Law

This Contract is governed by and will be construed according to the laws of New South Wales.

16.3 No Waiver

(a) Failure to exercise or enforce or a delay in exercising or enforcing the partial exercise or enforcement of any right, power or remedy provided by law or under this Contract 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 Contract.

(b) Any waiver or consent given by the Principal under this Contract 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:
(i) a breach of any term of this Contract; or
(ii) any other failure by the Contractor to comply with a requirement of this Contract, including any requirement to give any notice which it is required to give in order to preserve its entitlement to make any Claim against the Principal,

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 Contract or failure to comply with any other requirement of this Contract.

16.4 Assignment

The Contractor cannot assign its rights or liabilities under this Contract without the prior written consent of the Principal and except on such terms and conditions as are determined in writing by the Principal.

16.5 Entire Agreement

This Contract 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 Contract; or
(b) any correspondence or other documents relating to the subject matter of this Contract that may have passed between the parties prior to the date of this Contract and that are not expressly included in this Contract.

16.6 Joint and Several Liability

The rights and obligations of the Principal and the Contractor, if more than one person, under this Contract, are joint and several. Each person constituting the Contractor acknowledges and agrees that it will be causally responsible for the acts and omissions (including breaches of this Contract) of the other as if those acts or omissions were its own.

16.7 Severability

If at any time any provision of this Contract 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 Contract; or
(b) the legality, validity or enforceability under the law of any other jurisdiction of that or any other provision of this Contract.

16.8 Indemnities to Survive

Each indemnity in this Contract is a continuing obligation, separate and independent from the other obligations of the parties, and survives termination, completion or expiration of this Contract.

Nothing in this clause 16.8 prevents any other provision of this Contract, as a matter of interpretation also surviving the termination of this Contract.
It is not necessary for a party to incur expense or make any payment before enforcing a right of indemnity conferred by this Contract.

16.9 Stamp Duty and Other Fees

The Contractor must pay all stamp duties and other fees payable in respect of the execution of this Contract and the performance of its obligations in respect of this Contract.

16.10 Taxes

Without limiting clause 2.2(g) but subject to clause 18, the Contractor must pay all Taxes that may be payable in respect of the Contractor's Activities, including any customs duty or tariff, and primage applicable to imported materials, plant and equipment required for the Contractor's Activities.

16.11 Confidentiality

(a) Subject to clause 16.11(b), the Contractor must:
   (i) keep confidential this Contract and any information relating to the Contractor's Activities and any discussions concerning this Contract; and
   (ii) ensure that each of its officers, employees and Subcontractors complies with the terms of sub-paragraph (a)(i).

(b) The Contractor is not obliged to keep confidential any information:
   (i) which is in the public domain through no default of the Contractor; or
   (ii) the disclosure of which is:
        A. required by Law;
        B. consented to in writing by the Principal; or
        C. given to a court in the course of proceedings to which the Contractor is a party.

(c) The Contractor must:
   (i) execute and submit to the Principal within 14 days of this Contract a Confidentiality Undertaking in the form in Schedule 3;
   (ii) ensure that all employees of the Contractor that have access to the information described in the Confidentiality Undertaking are aware of their obligations under the terms of the Confidentiality Undertaking; and
   (iii) ensure that each Subcontractor, including suppliers and consultants, to the Contractor execute and submit a Confidentiality Undertaking to the Principal.

(d) The Contractor acknowledges that the Principal may disclose this Contract (and information concerning the terms of this Contract) under or in accordance with any one or more of the following:
   (i) the Government Information (Public Access) Act 2009 (NSW);
   (ii) the Ombudsman Act 1974 (NSW);
   (iii) to satisfy the disclosure requirements of the New South Wales Auditor General or to satisfy the requirements of Parliamentary accountability; and
(iv) any other Law.

(e) The Contractor must provide to the Principal any other information which the Principal reasonably requires to comply with its obligations under the items referred to in subparagraphs (i) - (iii) of Clause 16.11(d).

16.12 Right of Set-Off

The Principal may withhold, set-off or deduct from moneys otherwise due to the Contractor:

(a) any debt or other moneys due from the Contractor to the Principal (including any debt due from the Contractor to the Principal pursuant to section 26C of the SOP Act);

(b) 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; or

(c) any claim to money which the Principal may have against the Contractor whether for damages (including liquidated damages) or otherwise, whether under this Contract or otherwise at law.

If those moneys are insufficient, the Principal can have recourse to the security held under clause 2.6 of this Contract.

16.13 Entire Contract

Despite any progress payments that may be made to the Contractor under clause 11.4, this Contract is an entire contract.

16.14 Principal May Act

(a) The Principal may, either itself or by a third party, perform an obligation under this Contract that the Contractor was obliged to perform but which it failed to perform. The costs, losses, expenses and damages suffered or incurred by the Principal in so performing such an obligation will be a debt due from the Contractor to the Principal.

(b) Where the Principal or the Principal’s Representative is entitled under this Contract to exercise any right or power to:

(i) direct or instruct the Contractor to, or

(ii) itself step in to,

take any action or omit to take any action, it is not obliged to exercise that right or power, and may do so in its absolute discretion.

Where the Principal or the Principal’s Representative does exercise any such right or power, the Contractor remains responsible for, controls and assumes the risk of all environmental, health and safety issues relating to the Works.

16.15 Process Agent

If the Contractor is a foreign company (as defined in the Corporations Act 2001 (Cth)), the Contractor must:
16.16 Indemnity

The Contractor must indemnify the Principal against:

(a) any liability to or claim by any other person; and

(b) all costs, expenses, losses, damages, fines and penalties suffered or incurred by the Principal,

arising out of, or in any way in connection with, the Contractor's breach of a term of this Contract; provided that the Contractor's liability to indemnify the Principal will be reduced proportionally to the extent that an act or omission of the Principal, an Other Contractor or an agent of the Principal may have contributed to the liability claim, costs losses or damages.

16.17 Variations

This Contract may only be varied by a document signed by or on behalf of both the Principal and the Contractor.

16.18 Provisions Limiting or Excluding Liability

Any provision of this Contract which seeks to limit or exclude a liability of the Principal or the Contractor is to be construed as doing so only to the extent permitted by law.

16.19 Limit of Contractor's Liability

Subject to clause 16.21, the liability of the Contractor to the Principal, whether arising under or in connection with this Contract or the performance of non-performance thereof or anything incidental thereto, and whether by way of indemnity, by statute (to the extent that it is possible to exclude such liability), in tort (for negligence or otherwise) or on any basis in law or equity, is limited to the Original Contract Price.

16.20 Economic or Consequential Loss

Subject to clause 16.21, the Contractor will have no liability whatsoever to the Principal for loss of use, production, profit, revenue, business, data, contract or anticipated saving or for any financing costs or increase in operating costs or for any economic loss or for any special, indirect or consequential loss or damage.

16.21 Qualification on Limitation of Liability

Clauses 16.19 and 16.20 do not apply to limit or restrict in any way:

(a) any liability to the extent to which the Contractor receives payment or is indemnified pursuant to an insurance policy in respect of that liability;

(b) any liability for which, but for a failure by the Contractor to comply with its obligations under this Contract, the Contractor would have received payment or been indemnified under an insurance policy effected in accordance with this Contract;
16.22 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 Contract 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 Principal and the Contractor under this Contract with respect to proportionate liability are as specified in this Contract 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 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 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 Contractor (whether in contract, tort or otherwise), the Contractor will indemnify the Principal against any loss, damage, cost or expense that forms part of a claim by the Principal against the Contractor which the Principal is not able to recover from the Contractor because of the operation of Part 4 of the Civil Liability Act 2002 (NSW).

(c) The Contractor must:

(i) in each subcontract into which it enters for the carrying out of the work under this Contract or for the supply of materials or services, include a term that (to the extent permitted by law) excludes the application of Part 4 of the Civil Liability Act 2002 (NSW) in relation to all and any rights, obligations or liabilities of either party under each subcontract whether such rights, obligations or liabilities are sought to be enforced by a claim in contract, tort or otherwise; and

(ii) require each subcontractor or supplier of materials or services to include, in any further contract that it enters into with a third party for the carrying out of the work under this Contract, a term that (to the extent permitted by law) excludes the application of Part 4 of the Civil Liability Act 2002 (NSW) in relation to all and any rights, obligations or liabilities of either party under each further agreement whether such rights, obligations or liabilities are sought to be enforced by a claim in contract, tort or otherwise.
16.23 Novation

(a) The Principal may, by notice to the Contractor, assign, transfer or novate its rights, interests and obligations in the Contract to any NSW Government department, agency, authority or body without the consent of the Contractor. Upon receipt of such notice, the Contractor must execute a deed of novation of the Contract substantially in the form of Schedule 18. For the avoidance of doubt, this Clause 16.23 shall survive any novation of the Contract.

(b) The Contractor irrevocably and severally appoints the Principal and any authorised representative of the Principal to be the Contractor's attorney to execute, sign, seal and deliver in the name of the Contractor, a deed referred to in Clause 16.23(a) and all notices, deeds and documents for that purpose.

(c) Where the Contractor is required to execute a deed under Clause 16.23(a), it will do all things reasonable to give effect to the deed including:

(i) replacing any security provided by the Contractor under the Contract with security in like form however, for the benefit of the new principal;

(ii) ensuring the new principal’s interests are appropriately noted on relevant insurance policies; and

(iii) ensuring any warranty to be provided or procured by the Contractor under the Contract is amended so as to be for the benefit of the new principal.

(d) The Contractor acknowledges that:

(i) it has contemplated that the damages which may flow from any breach by it of the Contract include any damages suffered by any party to whom the Principal may novate the Contract pursuant to Clause 16.23(a); and

(ii) the Contractor must not plead as a defence to any claim for breach of Contract and in relation to any quantification of such claim, the fact that any person to whom the Contract is novated pursuant to Clause 16.23(a) was not originally named as a party to the Contract or that the damages incurred by such person were not reasonably within the contemplation of the parties at the time of entering into the Contract.

17. Notification of Claims

17.1 Notice of Variation

If a direction by the Principal's Representative, other than a "Variation Order" under clause 6.2, constitutes or involves a Variation, the Contractor must, if it wishes to make a Claim against the Principal arising out of, or in any way in connection with, the direction:
(a) within the time specified in Schedule 1 of receiving the direction and before commencing work on the subject matter of the direction, give notice to the Principal's Representative, that it considers the direction constitutes or involves a Variation;

(b) within the time specified in Schedule 1 of giving the notice under paragraph (a), submit a written Claim to the Principal's Representative, which includes the details required by clause 17.3(b); and

(c) continue to carry out the Contractor's Activities in accordance with this Contract and all directions of the Principal's Representative, including any direction in respect of which notice has been given under this clause 17.1.

17.2 Notice of Other Claims

If the Contractor wishes to make any Claim (other than an Excluded Claim) against the Principal in respect of any direction of the Principal's Representative or any other event, circumstance, act, omission, fact, matter or thing (including a breach of this Contract by the Principal) under, arising out of, or in any way in connection with, this Contract, the Contractor's Activities or the Works, including anything in respect of which:

(a) it is otherwise given an express entitlement under this Contract; or

(b) the Contract expressly provides that:

(i) specified costs are to be added to the Contract Sum; or

(ii) the Contract Sum will be otherwise increased or adjusted, as determined by the Principal's Representative,

the Contractor must give the Principal's Representative the notice required by clause 17.3(a) and a Claim in accordance with clause 17.3(c).

An Excluded Claim is any claim:

(c) with respect to a Change in Law under clause 2.3(c);

(d) for a Variation directed in accordance with clause 6.2 or a direction by the Principal's Representative to which clause 17.1 applies;

(e) for an extension of time to any Date for Completion under clause 10.8; or

(f) for payment under clause 11, including claims under clauses 11.9 and 11.11.

17.3 Prescribed Notices

The notices and Claims referred to in clauses 17.1 and 17.2 are:

(a) a written notice, not later than the time specified in Schedule 1 after the first occurrence of the direction, event, circumstance, act, omission, fact, matter or thing which gave rise to the alleged entitlement, expressly specifying:

(i) that it proposes to make a Claim; and

(ii) the direction event, circumstance, act, omission, fact, matter, or thing, which gave rise to the alleged entitlement in the Claim;

(b) a written Claim in accordance with clause 17.1(b), not later than the time specified in Schedule 1 of giving the written notice under clause 17.1(a), that must include:
(i) detailed particulars, including the date or dates, of the direction, including any related event, circumstance, act, omission, fact, matter or thing upon which the Claim is based;

(ii) the provisions of this Contract or other legal basis upon which the Claim is based; and

(iii) details of the amount claimed and how it has been calculated; and

(c) a written Claim in accordance with clause 17.2, not later than the time specified in Schedule 1 of giving the written notice under paragraph (a), that must include:

(i) detailed particulars, including the date or dates, of the direction, event, circumstance, act, omission, fact, matter or thing upon which the Claim is based;

(ii) the legal basis for the Claim, whether based on a term of this Contract or otherwise, and if based on a term of this Contract, clearly identifying the specific term;

(iii) the facts relied upon in support of the Claim in sufficient detail to permit verification; and

(iv) details of the amount claimed and how it has been calculated.

17.4 Submission of Claims

Claims submitted by the Contractor under clauses 17.1(b) and 17.2 will be considered in the first instance by the Principal's Representative who may accept or reject the Claim in part or in full.

If within 28 days after first receipt of a Claim the Principal's Representative has not made a decision on the Claim, the Claim will be deemed to have been rejected on that 28th day.

17.5 Continuing Events

If the direction, event, circumstance, act, omission, fact, matter or thing upon which a Claim is based, or their consequences are continuing, the Contractor must continue to give the information required by clause 17.3(b) or 17.3(c) every 28 days after the written Claim under clause 17.1(b) or 17.2 (as the case may be) was submitted or given to the Principal's Representative, until after the direction, event, circumstance, act, omission, fact, matter or thing or the consequences thereof have ceased.

17.6 Bar

If the Contractor fails to comply with clauses 2.3(c), 17.1, 17.2, 17.3 or 17.5:

(a) the Principal will not be liable upon any Claim by the Contractor; and

(b) the Contractor will be absolutely barred from making any Claim against the Principal,

arising out of or in any way in connection with the relevant direction, event, circumstance, act, omission, fact, matter or thing (as the case may be) to which those clauses apply.
17.7  Other Provisions Unaffected

Nothing in clauses 17.1 to 17.6 will limit the operation or effect of any other provision of this Contract that requires the Contractor to give notice to the Principal's Representative in order to preserve an entitlement to make a Claim against the Principal.

18.  General Provisions Relating to GST

(a)  The parties acknowledge that unless otherwise expressly stated all amounts of monetary consideration in this Contract are exclusive of GST.

(b)  If GST is or becomes payable on a supply made by a party ("Supplier") under or in connection with this Contract, the Contractor's Activities or the Works, the party providing consideration for the supply 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)  Subject to clause 18(e), any amount payable under clause 18(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 Contract to reimburse or pay to the other party an amount (other than any payment on account of the Contract Sum) 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 Contract, a party will not be obliged to pay any amount in respect of GST to the other party (whether under this clause 18 or otherwise) unless and until a tax invoice that complies with the GST Legislation has been issued by the Supplier in respect of that taxable supply.

(f)  Each party agrees to do all things, including providing invoices or other documentation, that may be necessary or desirable to:

(i)  enable or assist the other party to claim input tax credits to the maximum extent possible; or

(ii)  itself claim all input tax credits that might be available to it in order to reduce the amount recoverable from the other party under this Contract.

(g)  If the GST payable in relation to a supply made by the Supplier under this Contract varies from the additional amount paid by the other party under this clause 18 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).

(h)  In this clause 18:

(i)  "GST" or "Goods and Services Tax" means the tax payable on taxable supplies under the GST Legislation;

(ii)  "GST Legislation" means A New Tax System (Goods and Services Tax) Act 1999 and any related Act imposing such tax or legislation that is acted to validate, recapture or recoup such tax;

(iii)  terms defined in GST Legislation have the meaning given to them in GST Legislation; and
(iv) any part or progressive or periodic component of a supply that is treated as a separate supply for GST purposes (including attributing GST to tax periods) will be treated as a separate supply.

19. TfNSW’s Statement of Business Ethics

(a) The Contractor must at all times comply with TfNSW’s Statement of Business Ethics, a copy of which is available at www.transport.nsw.gov.au.

(b) Prior to the engagement of any Subcontractor by the Contractor, the Contractor must obtain a written acknowledgement from such Subcontractor that it has received, read, understood and will comply with TfNSW’s Statement of Business Ethics.
Schedule 1 - Contract Particulars

Conditions Precedent to Completion:
(Clause 1.1)

Contractor:
(Clause 1.1)
Gartner Rose Pty Ltd (ABN 31 059 738 242)
Unit 15B / 390 Eastern Valley Way, Chatswood, NSW, 2067

Date for Completion:
(Clause 1.1)
Portion 1 16 Dec 2012
Portion 2 18 Mar 2013

Defects Rectification Period:
(Clause 1.1)
The Defects Rectification Period for each Portion is the period commencing on the Date of Completion of the Portion and expiring 12 months after the Date of Completion of the last Portion to achieve Completion.

Environmental Representative:
(Clause 1.1)
Phillipa Hendy (Transport for NSW)

Other Excepted Risk:
(Clause 1.1)
A negligent act or omission of the Principal, the Principal’s Representative, other agents of the Principal or an Other Contractor (other than an Interface Contractor).

Interface Contractors:
(Clause 1.1)
- Rail Corporation of New South Wales (RailCorp)
- Liftronic Pty Limited
- ADT Integrated Systems

Original Contract Price:
(Clause 1.1)
Refer clause 1 of the Formal Agreement

Portions:
(Clause 1.1)
Portion 1 All works necessary to enable access to and use by the public and RailCorp staff of the station (including all lifts, stairs, ramps, new platform extensions, raised platforms, booking office, public toilets, signage, lighting, finishes, and removal of temporary hoardings and facilities) and the council carpark.
Portion 2 All remaining works (including throw screens, landscaping, fencing, regrading of the upper accessway and removal of all contractor’s facilities)

Principal’s Representative:
(Clause 1.1)
John Templeman Project Director, Transport Access Program
Transport for NSW
(by hand)
Level 5, Tower A, Zenith Centre,
821 Pacific Highway
Chatswood NSW 2067
(by post)
Locked Bag 6501, St Leonards NSW 2065
Telephone: 9200 0200
Facsimile: 9200 0290
Matters required to be dealt with by Project WHS Management Plan:
(Clauses 1.1)

1. Where the Contractor is engaged as the principal contractor, all matters required to be covered in a Project WHS Management Plan by the WHS Legislation, including:

(a) the names, positions and responsibilities of all persons at the workplace whose positions or roles involve specific health and safety responsibilities in connection with the Works;

(b) the arrangements in place, or to be implemented, between any persons conducting a business or undertaking at the workplace where the Works are being undertaken, for consultation, cooperation and coordination of activities in relation to compliance with their duties under the WHS Legislation;

(c) the arrangements in place, or to be implemented, for managing any work health and safety incidents that occur, including incident reporting procedures, record-keeping and reporting requirements (including project-specific and general reporting and reporting to the Principal's Representative with respect to work health and safety matters), project-specific emergency plans and first aid procedures;

(d) any site-specific health and safety rules, and the arrangements for ensuring that all persons at the workplace are informed of these rules;

(e) the arrangements for the collection and recording, and any assessment, monitoring and review of safe work method statements at the workplace; and

(f) ensuring that work health and safety is a compulsory agenda item at all meetings in accordance with clause 9.9 of this Contract and ensuring that the outcomes of those agenda items are communicated to the Principal's Representative.

2. If design forms part of the Contractor's Activities, proposed design risk assessments, the status of the Safety Report, purchasing policies for plant, materials and substances, the processing for complying with the Law regarding design and the process for addressing design changes relevant to work health and safety considerations.

3. Management of work health and safety generally, including any work health and safety policy, details of any work health and safety management system (including certification, inspection and audit programs), training and induction programs (including work health and safety generally, emergency procedures and use of emergency equipment), the
process of communication, information-sharing and provision of assurances to the Principal's Representative pursuant to clause 7.9(b)(iv) of this Contract, and dispute resolution on work health and safety matters.

4. Provision of assurances to the Principal's Representative regarding compliance with any relevant applicable requirements or Codes and Standards relating to work health and safety management plans;

5. Management of subcontractors, including induction, training, development of Safe Work Method Statements, Job Safety Assessments or equivalent documentation, the obligation to consult, cooperate and coordinate activities, the process of communication, information-sharing and provisions of assurances pursuant to clause 7.9(b)(iv) of this Contract and the process for ensuring subcontractor compliance with the Project WHS Management Plan.

6. Management of project hazards and risks generally, including work involving:
   (a) fall hazards;
   (b) telecommunications towers;
   (c) demolition;
   (d) disturbance or removal of asbestos;
   (e) structural alterations requiring temporary supports;
   (f) confined spaces;
   (g) excavation deeper than 1.5 metres;
   (h) tunnels;
   (i) use of explosives;
   (j) pressurised gas distribution mains and consumer piping;
   (k) chemical, fuel or refrigerant lines;
   (l) electrical work, including involving energised electrical installations and services;
   (m) hazardous atmospheres;
   (n) tilt-up and precast concrete;
   (o) roadways or railways used by road or rail traffic;
   (p) movement of powered mobile plant;
   (q) artificial extremes of temperature;
   (r) water or other liquids where there is a risk of drowning;
   (s) diving;
   (t) remote or isolated work;
   (u) above-standard exposure to noise;
   (v) other hazardous manual tasks;
(w) exposure to falling objects;  
(x) abrasive blasting; and  
(y) hazardous chemicals.

Reports: 
(Clause 1.1)  
Refer to Exhibit F

The Site: 
(Clause 1.1)  
Worksite A (within DP 92170 Lots 1 and 2) and Worksite B (within DP 8186 Lots 19 and 20) as described under clause 2.1 in Exhibit E – Contract Specific Requirements

Working days: (Clause 1.2(m))  
Monday to Saturday excluding public holidays in Sydney and rostered days off, plus any day included in a Track Possession.

Order of Precedence: (Clause 1.4)  
The Contract excluding the Schedules and the Exhibits; then  
(a) the Schedules; then  
(b) Exhibit B – Works Brief, then  
(c) Exhibit A – TfNSW Standard Requirements, then  
(d) Exhibit E – Contract Specific Requirements

Is Deed Poll required (Clause 1.5)  
Yes

Names of persons in whose favour Deed Poll is required (Clause 1.5)  
Rail Corporation of New South Wales (RailCorp)

Amount for approval of Subcontracts: 
(Clause 2.2(b))  
Subcontracts with an initial price of $250,000 or greater.

Subcontractors required to effect professional indemnity insurance: 
(Clause 2.2(c))  
Not Applicable

Minimum amount of professional indemnity insurance required: 
(Clause 2.2(c))  
Not Applicable

Subcontract prices for which security of payment provisions are required: 
(Clause 2.2(e)(i))  
Subcontracts with an initial price of $25,000 or greater.

Subcontractors required to execute deed in form of Schedule 14: 
(Clause 2.2(e)(iv)A)  
Subcontracts with an initial price of $500,000 or greater.
(Clause 2.2(e)(iv)B) The following categories:
- all Subcontracts and consultant engagements which include any element of design

Warranties required from Subcontractors: (Clause 2.2(f)) Refer to Exhibit G

Guidelines, standards and codes of practice: (Clause 2.3(a)(iv))
- "Code of Practice for Procurement" (January 2005 Edition);
- "Aboriginal Participation in Construction Implementation Guidelines", January 2001;
- "Industrial Relations Management Guidelines", December 1999;
- "Environmental Management Systems Guidelines" (1st edition), November 1998;
- "Work Health Safety Management Systems Guidelines";
- "Guidelines for Auditing Project OHS Management Plans", June 2004;
- "Training Management Guidelines", February 2009;
- "Quality Management System Guidelines for Construction", April 2006;
- Government Waste Reduction and Purchasing Policy (WRAPP); and
- and any other New South Wales Government guidelines and requirements specified or required by this Contract.

Parent Company Guarantor: Not Applicable (Clause 2.6(f))

The party responsible for payment of the Long Service Leave Levy is Gartner Rose Pty Ltd (Clause 2.7)

The principal contractor under the WHS Legislation is: (Clause 2.10) Contractor Period of Appointment

Contract Duration
Site access dates: (Clause 3.1(b)(i)) 4 June 2012

Site access preconditions: (Clause 3.1(c)(ii)E)
- An Approved Construction Traffic Management Plan
- Submitted a Conditions Survey on roads and adjacent buildings
- All preconstruction items under Schedule 4

Rates for determining increase in Contract Sum for failure to give access:
(Clause 3.1(e)(iii))

Condition Surveys exist for the following properties: (Clause 3.12)
Not Applicable

Percentages to be applied to Variation and daywork costs: (Clauses 6.4 and 6.7)

<table>
<thead>
<tr>
<th>Clause No</th>
<th>percentage</th>
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<td>6.4(b)(ii)A (including a valuation required to be made by clauses 3.5(c), 3.7(g)(i) or 3.9(e)(i))</td>
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<td>6.4(b)(ii)B</td>
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<td>6.7</td>
<td></td>
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Provisional Sum Work: (Clauses 1.1 and 7.3)
NIL

Percentages to be applied to Provisional Sum Work: (Clause 1.1 and 7.3)

Parts of the Site within which the Works must be located: (Clauses 3.11 and 7.6(a))
Worksite A (within DP 92170 Lots 1 and 2) and Worksite B (within DP 8186 Lots 19 and 20) as described under clause 2.1 in Exhibit E – Contract Specific Requirements

New Defects Rectification Period: (Clause 8.6) 12 months.

Contractor's Personnel (Clauses (a) and 9.4(b)(i))
Is the Contractor required to submit a Project Training Management Plan: (Clause 9.13)  

No

Causes of delay entitling Contractor to extension of time: (Clause 10.7(a))  

- a Force Majeure Event; and
- a Change in Law; and
- a strike that is industry-wide and not specific to the Contractor, the Site or the Contractor’s activities; and
- the discovery of Hazardous Material

Rates to be used in determining delay damages: (Clause 10.13)  

[Redacted]

Liquidated damages: (Clause 12.7(a))  

Portion 1  

Portion 2

Limit of liability for liquidated damages for delay: (Clause 12.7(d))  

[Redacted] of the Contract Sum

Insurance of the Works (Clause 13.4)  

(a) Alternative applying  

Alternative 1

If Alternative 2 applies  

(b) Provision for demolition and removal of debris  

.................................$........................................

OR

.........% of the Contract Sum

(c) Provision for consultants' fees and Principal's consultants' fees  

.................................$........................................

OR

.........% of the Contract Sum

(d) Value of materials or things to be supplied by the Principal  

.................................$........................................

(e) Additional amount or percentage
Public liability insurance
(Clause 13.4A)
(a) Alternative applying

OR
(b) Amount per occurrence shall be not less than

Amount of Contractor's insurance:
(Clause 13.8(a) and 13.8(f)(iii))

- Workers compensation insurance or similar insurance as required under clause 13.5(f) for an amount as required by Law
- Construction Plant Insurance
  Current market value of the Construction Plant
- Professional Indemnity Insurance
  N/A
- Motor Vehicle Insurance
  $20,000,000
- Asbestos Liability Insurance
  $10,000,000 for any one occurrence and $20,000,000 in the aggregate

Period for Professional Indemnity Insurance:
(Clause 13.10(d))
Not Applicable

Person in Insolvency Event:
(Clause 14.4(c))
Daniel Rose ABN (31 059 738 242)
Unit 15B / 390 Eastern Valley Way, Chatswood, NSW 2067

Amount for termination for convenience:
(Clause 14.9(a)(v))

Clauses in respect of which disputes concerning directions of a Principal's Representative must be submitted within 14 days of date of direction:
(Clause 15.1 and 15.2)
2.3(d)(ii), 3.1(e)(ii), 3.8 (final paragraph), 6.4, 6.7, 7.3, 8.6, 9.8(c)(ii), 10.10, 10.11, 10.13, 10.14(b), 11.3, 12.3(b), 12.3(d), 14.5 (first paragraph), 14.9(a) and 14.12(b).
The persons for Executive Negotiation:
(Clause 15.4)
Principal: John Templeman
Contractor: Daniel Rose
**Addresses:**
(Clause 16.1(a))

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

Principal's Representative: Level 5, Tower A, Zenith Centre, 821 Pacific Highway, Chatswood NSW 2067

Contractor: Unit 15B / 390 Eastern Valley Way, Chatswood, NSW 2067

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<td>(Clauses 17.1(a) and 17.3(a))</td>
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<th>Time for written Claims:</th>
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<tr>
<td>(Clauses 17.1(b), 17.3(b) and 17.3(c))</td>
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</tbody>
</table>
Schedule 3 - Form of Confidentiality Undertaking

(Clauses 2.2(e)(iii) and 16.11(c)(i))

To: [ ]

We, the engaged Consultant/Supplier/Contractor/Subcontractor body, undertake to treat as confidential all information received/generated from the Principal in respect of work performed by the Principal.

The Consultant/Supplier/Contractor/Subcontractor hereby undertakes:

(b) To disclose information to its employees only on a need-to-know basis;

(c) Not to disclose information to any other person without first obtaining the written consent of the Principal;

(d) To ensure that its employees to whom information is disclosed will comply with (a) and (b) above.

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

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

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

The Consultant/Supplier/Contractor/Subcontractor also undertakes to declare to the Principal any conflict of interests that exists or arises during the course of its engagement which may impinge on the objectivity or probity of the work performed. Such declarations are to be made as soon as the conflict of interests issues arises.
This undertaking will remain in force until each part of the confidential information is released by the Principal into the public domain.

Dated: ........................................

SIGNED for and on behalf of:

........................................................................................................
(Print Company Name)

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

in the presence of:

........................................................................................................
(Print Name)  (Signature)
Schedule 4 - Action in Complying with Planning Approval

(Clause 2.3(b))

Part A

The Contractor must fulfil all the conditions and requirements of the Planning Approval except to the extent that the table Annexure D of the TfNSW Standard Requirements TSR E1 – Environmental Management (Exhibit A) allocates responsibilities to the Principal. Nothing specified in this table as being a responsibility of the Principal will relieve the Contractor from complying with any obligation set out elsewhere in this Contract. The Contractor may apply to have any part of any of the Approvals listed in the table modified. The Contractor acknowledges and agrees that it is solely responsible for any such modification.
**Schedule 5 - Subcontractors - Security of Payment**

(Clause 2.2(e)(i))

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

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

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

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

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

   A clause which has the effect that:

   (a) cash securities and retentions under the Subcontract and the cash proceeds of any security converted to cash (other than in exercise of a contractual right of enforcement) is trust money and must be deposited into and held in a trust account with a bank within 24 hours of receipt or conversion;

   (b) the trust money is beneficially owned by the party which provided the security at all times unless the other party becomes entitled to receive them under the Subcontract;

   (c) the security holder must hold proper records and account to the security provider for the trust moneys; and

   (d) any interest earned by the trust account will not be held in trust, and will be owned by the security holder.

3. **Payment Provisions**

   A clause which:

   (a) has the effect of requiring the Contractor to pay the Subcontractor (and Subcontractors their Subcontractors) regular progress payments for 100% of the value of work (less only retention moneys, if any, paid into the trust account) for which payment is claimed by the Subcontractor and for which the Contractor has claimed payment from the Principal, no later than:

      (i) in the case of the Contractor's Subcontractors, 7 days; and

      (ii) in the case of the Subcontractor's subcontractors, 14 days, after the last day for payment by the Principal to the Contractor for such work;

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

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

4. **Alternative Dispute Resolution**

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

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

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

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

(a) clause 2.2(e)(i);
(b) this Schedule 5;
(c) clause 11; and
(d) clause 15.
Schedule 6 - Consultant Deed of Covenant

(Clause 2.2(e)(ii))

This deed poll is made the day of 20

To: Transport for NSW (ABN 18 804 239 602) (a NSW Government Agency constituted under the Transport Legislation Amendment Act 2011 (NSW), of 18 Lee St Chippendale NSW 2008 (the "Principal")

By: [ ] ("Consultant")

Recitals

A. The Principal has engaged [ ] ("Contractor") to carry out certain works for the Principal by a contract dated [ ] ("Contract").

B. The Contractor has engaged the Consultant by agreement dated [ ] ("Subcontract") to carry out the professional services to be performed under the Subcontract ("Professional Services") for the purposes of the performance of the Contractor's obligations under the Contract as they relate those design services.

C. Under the Contract, the Contractor is required to procure the Consultant to execute this deed poll in favour of the Principal.

Operative

1. Duty of Care

(a) The Consultant

(i) warrants to the Principal that:

A. in performing the Professional Services, it will exercise the standard of skill, care and diligence that would be expected of a consultant experienced in and expert in the provision of the type of professional services required by the Principal;

B. the Professional Services will be fit for the intended purposes disclosed in or reasonably able to be inferred from the Works Brief, which is an annexure to the Contract; and

C. the Professional Services do not and will not infringe any patent, registered design, trademark or name, copyright or other protected right;

(ii) acknowledges that:

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

E. it is aware that the Principal will be relying upon the skill and judgment of the Consultant in performing the Professional Services and the warranties given by the Consultant in this deed poll; and
must act in good faith and in the best interests of the Principal and promptly advise the Principal about any matter in which the Consultant has been instructed by the Contractor to provide the Professional Services in a manner which is, or may result in an outcome which is, not in accordance with the requirements of the Contract, including without limitation:

F. where the Contractor's instructions in relation to design are not consistent with the Contract or may result in the Works not being fit for their intended purpose; or

G. where the Contractor's instructions require the Consultant to issue a certificate where the conditions for the issue of that certificate under the Contract have not been satisfied.

(b) The Consultant must:

(i) fully cooperate with each other consultant and contractor engaged by the Principal ("Other Contractor");

(ii) carefully coordinate and integrate the Professional Services with the services and work carried out by each Other Contractor;

(iii) carry out the Professional Services so as to minimise any interfering with, disrupting or delaying, the services and work carried out by each Other Contractor;

(iv) without limitation, provide whatever advice, support and cooperation is reasonable to facilitate the due carrying out of the services and work being provided by each Other Contractor;

(v) ensure title to and intellectual property (including any patent, registered design, trademark or name, copyright or other protected right) in or in relation to the Professional Services will vest upon its creation for the purposes of the Contract in the Principal;

(vi) obtain an assignment to the Principal from any third party who owns any intellectual property right in the Professional Services;

(vii) if any intellectual property rights in or in relation to documents, designs and computer programs created for the purposes of the Contract is not capable of being vested in the Principal because the Consultant itself does not own, and is unable at a reasonable cost to obtain ownership of, those rights, provide to the Principal an irrevocable licence to use that Intellectual Property, by sub-licence from the Consultant or direct licence from a third party; and

(viii) ensure that the intellectual property created for the purposes of the Contract is not used, adapted or reproduced other than for the purposes of the Contract without the prior written approval of the Principal (which will not be unreasonably withheld, but may be given subject to terms and conditions).

(c) The Consultant must indemnify the Principal from and against:

(i) any liability to or claim by any other person; and

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

2. Notices

(a) Any notices contemplated by, or arising out of or in any way in connection with, this deed poll must be in writing and delivered to the relevant address or sent to the facsimile number shown below (or to a party's new address or facsimile number which that party notifies to the others):

(i) to the Principal: c/o Level 5, Tower A
Zenith Centre
821 Pacific Highway
CHATSWOOD NSW 2067
Fax: (02) 9200 0290

(ii) to the Consultant: [Insert details]

(b) A notice sent by post will be taken to have been received at the time when, in due course of the post, it would have been delivered at the address to which it is sent.

(c) A notice sent by facsimile will be taken to have been received on the next day after the day shown on the transmission slip showing the facsimile number of the party to whom it is addressed in accordance with clause 2(a), which is not a Saturday, Sunday or public holiday in New South Wales.

(d) If the Consultant is a foreign company (as defined in the Corporations Act), the Consultant must within 14 days of the date of this deed poll:

(i) appoint a local process agent acceptable to the Principal as its agent to accept service of process under or in any way in connection with this deed poll; and

(ii) obtain the process agent's consent to the appointment.

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

3. Miscellaneous

(a) This deed poll will be construed in accordance with the law of the State of New South Wales and the Consultant irrevocably submits to the jurisdiction of the Courts of that State.

(b) This deed poll may not be revoked or otherwise modified without the prior written consent of the Principal.

4. Limit of Liability

(a) Notwithstanding any other provision of this deed poll or the Subcontract, the liability of the Consultant to the Principal, whether arising under or in connection with this deed poll or the Subcontract or the performance or non-performance thereof or anything incidental thereto, and whether by way of indemnity, by statute (to the extent that it is possible to exclude such liability), in tort (for negligence or otherwise) or any other basis in law or equity, is hereby limited and excluded as follows:
(b) the Consultant shall have no liability whatsoever to the Principal for loss of use, production, profit, revenue, business, data, contract or anticipated saving, or for any financing costs or increase in operating costs or any economic loss or for any special, indirect or consequential loss or damage; and

(c) the total aggregate liability of the Consultant in connection with the Deed Poll and Subcontract and any other deeds, agreements, warranties or undertakings in connection therewith is limited to $20 Million (twenty million dollars).
Schedule

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

Executed as a deed poll.

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

(Signature of Witness)

(Name of Witness in Full)
Schedule 7 - Approvals to be obtained by the Principal

(Clause 2.3(b)(i))

- The Planning Approval.
Schedule 8 - Form of Unconditional Undertaking

(Clause 2.6)

This deed poll ("Undertaking") made the day of 20

In favour of: Transport for NSW (ABN 18 804 239 602) (a NSW Government Agency constituted under the Transport Legislation Amendment Act 2011 (NSW)., of 18 Lee St Chippendale NSW 2008 (the "Principal")

Given by: # [ ] ("Institution")

Recitals:

A. By a contract dated # ("Contract") between # ("Contractor") and the Principal the Contractor agreed to carry out the Contractor's Activities (as defined in the Contract).

B. Under the provisions of the Contract, the Contractor is required to provide this Undertaking to the Principal.

Operative:

1. The Institution unconditionally undertakes and covenants to pay to the Principal on demand without reference to the Contractor and notwithstanding any notice given by the Contractor to the Institution not to do so, any sum or sums which may from time to time be demanded in writing by the Principal to a maximum aggregate sum of # ($ ).

2. The Institution's liability under this Undertaking will be a continuing liability and will continue until payment is made under this Undertaking of the maximum aggregate sum or until the Principal notifies the Institution that this Undertaking is no longer required.

3. The liability of the Institution under this Undertaking must not be discharged or impaired by reason of any variation or variations (with or without the knowledge or consent of the Institution) in any of the stipulations or provisions of the Contract or the Contractor's Activities or acts or things to be executed, performed and done under the Contract or by reason of any breach or breaches of the Contract by the Contractor or the Principal.

4. The Institution may at any time without being required so to do pay to the Principal the maximum aggregate sum less any amount or amounts it may previously have paid under this Undertaking and thereupon the liability of the Institution hereunder will immediately cease.

5. This Undertaking will be governed by and construed in accordance with the laws for the time being of the State of New South Wales.
Executed as a deed poll.

Signed Sealed and Delivered )
by [ ] being signed ) ..................................................
sealed and delivered by its duly constituted ) (Signature)
Attorney [ ] under )
Power of Attorney No. in the )
presence of: )

..........................................................
(Signature of Witness)

..........................................................
(Name of Witness in Full)
## Schedule 9 - Information Documents and Materials

(Claude 3.6)

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<tr>
<th>DRG No.</th>
<th>DRAWING TITLE</th>
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<td>Plan showing Detail &amp; Levels</td>
<td>Sheet 4 of 6 B</td>
</tr>
<tr>
<td>3534-05-B</td>
<td>Plan showing Detail &amp; Levels</td>
<td>Sheet 5 of 6 B</td>
</tr>
<tr>
<td>3534-06-B</td>
<td>Plan showing Detail &amp; Levels</td>
<td>Sheet 6 of 6 B</td>
</tr>
<tr>
<td>4472-01</td>
<td>Plan showing Detail &amp; Levels- Additional Drainage Detail</td>
<td>Sheet 1 of 8 -</td>
</tr>
<tr>
<td>4472-02</td>
<td>Plan showing Detail &amp; Levels- Additional Drainage Detail</td>
<td>Sheet 2 of 8 -</td>
</tr>
<tr>
<td>4472-03</td>
<td>Plan showing Detail &amp; Levels- Additional Drainage Detail</td>
<td>Sheet 3 of 8 -</td>
</tr>
<tr>
<td>4472-04</td>
<td>Plan showing Detail &amp; Levels- Additional Drainage Detail</td>
<td>Sheet 4 of 8 -</td>
</tr>
<tr>
<td>4472-05</td>
<td>Plan showing Detail &amp; Levels- Additional Drainage Detail</td>
<td>Sheet 5 of 8 -</td>
</tr>
<tr>
<td>4472-06</td>
<td>Plan showing Detail &amp; Levels- Additional Drainage Detail</td>
<td>Sheet 6 of 8 -</td>
</tr>
<tr>
<td>4472-07</td>
<td>Plan showing Detail &amp; Levels- Additional Drainage Detail</td>
<td>Sheet 7 of 8 -</td>
</tr>
<tr>
<td>4472-08</td>
<td>Plan showing Detail &amp; Levels- Additional Drainage Detail</td>
<td>Sheet 8 of 8 -</td>
</tr>
<tr>
<td><strong>EARTHING &amp; BONDING SKETCHES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SK001</td>
<td>EARTHING &amp; BONDING ARRANGEMENT - Sketch 1 of 3</td>
<td>Sketch 1 of 3 -</td>
</tr>
<tr>
<td>SK002</td>
<td>EARTHING &amp; BONDING ARRANGEMENT - Sketch 2 of 3</td>
<td>Sketch 2 of 3 -</td>
</tr>
<tr>
<td>SK003</td>
<td>EARTHING &amp; BONDING ARRANGEMENT - Sketch 3 of 3</td>
<td>Sketch 3 of 3 -</td>
</tr>
</tbody>
</table>
Schedule 11 - Form of Warranty

(Clause 2.2(f))

This Deed Poll is made the day of 20

To: Transport for NSW (ABN 18 804 239 602) (a NSW Government Agency constituted under the Transport Legislation Amendment Act 2011 (NSW), of 18 Lee St Chippendale NSW 2008 (the "Principal")

Rail Corporation of New South Wales (ABN 59 325 778 353) a corporation constituted by section 4(1) of the Transport Administration Act 1988, of Level 20, 477 Pitt Street Sydney, NSW 2000 ("RailCorp").

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

Recitals

A. The Warrantor has supplied the items described in Item 2 of the Schedule ("Equipment") to the person described in Item 3 of the Schedule ("Contractor") or the person described in Item 4 of the Schedule, a subcontractor of the Contractor ("Subcontractor"), for the works ("Works") being carried out by the Contractor under the contract described in Item 5 of the Schedule ("Contract") with the Principal.

B. It is a requirement of the Contract that the Contractor procure the Warrantor to give the following warranties in favour of the Principal and RailCorp with respect to the Equipment.

Operative

1. Quality

The Warrantor:

(a) warrants to the Principal and RailCorp that the Equipment will be to the quality and standard stipulated by the Contract and will be of merchantable quality and fit for the purpose for which it is required; and

(b) gives the warranty more particularly set out in Item 6 of the Schedule with respect to the Equipment.

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

2. Replacement

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

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

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

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

4. **Principal not liable**

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

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

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

6. **Governing Law**

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

7. **Jurisdiction**

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

8. **Enforcement of this deed poll**

For the avoidance of doubt this deed poll is enforceable by any of the Transport for NSW or Rail Corporation New South Wales.
Schedule

Item 1: Name and Address of Warrantor

Item 2: Equipment
   (Recital A)

Item 3: Contractor
   (Recital A)

Item 4: Subcontractor
   (Recital A)

Item 5: Contract
   (Recital A)

Item 6: Detailed Warranty of Warrantor
   (Clause 1(b))

Item 7: Period of Years
   (Clause 2)

[insert period] years from the expiry of the last "Defects Rectification Period" as defined in the General Conditions (including any extension under clause 8.7 of the General Conditions).

Executed as a deed poll.

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

__________________________  ____________________________
Signature of Director        Signature of Secretary/other Director

__________________________  ____________________________
Name of Director in full     Name of Secretary/other Director in full
Schedule 12 Form of Statutory Declaration and Subcontractor’s Statement

(Clause 11.2(g)(i))

**Statutory Declaration**

<table>
<thead>
<tr>
<th>Clause</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I, [insert full name of Declarant] of [insert address], do solemnly and sincerely declare that:</td>
</tr>
<tr>
<td>2.</td>
<td>The Contractor has a contract with the [ ] (“the Contract”)</td>
</tr>
<tr>
<td>3.</td>
<td>I personally know the facts which I have set out in this declaration.</td>
</tr>
<tr>
<td>4.</td>
<td>All employees who have at any time been engaged by the Contractor for work done under the Contract:</td>
</tr>
<tr>
<td></td>
<td>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</td>
</tr>
<tr>
<td></td>
<td>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:</td>
</tr>
<tr>
<td></td>
<td>Employee: [insert name of Contractor, and ACN if applicable]</td>
</tr>
<tr>
<td></td>
<td>Amount unpaid or not accrued:</td>
</tr>
<tr>
<td></td>
<td>[Insert names and addresses of the unpaid employees, the amounts unpaid, and whether in respect of wages, allowances, holiday pay, long service leave payments and superannuation entitlement etc.]</td>
</tr>
<tr>
<td>5.</td>
<td>All subcontractors and suppliers to the Contractor have been paid all moneys which as at the date of this declaration have been claimed by them to the Contractor for the performance of work under the Contract (as applicable) and the supply of materials for use in work under the Contract, with the exception of the subcontractors and suppliers and the respective unpaid amounts listed below:</td>
</tr>
<tr>
<td></td>
<td>Subcontractor or supplier:</td>
</tr>
<tr>
<td></td>
<td>Amount unpaid:</td>
</tr>
<tr>
<td></td>
<td>[Insert names and addresses of the unpaid subcontractors and suppliers, the amounts owing and whether in respect of materials supplied, work performed etc.]</td>
</tr>
<tr>
<td>6.</td>
<td>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.</td>
</tr>
</tbody>
</table>

1780185_9  
© TNSW 2011  
TNSW MANAGEMENT SYSTEM  
UNCONTROLLED WHEN PRINTED
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:
      
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:
   
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 is a "Subcontractor's Statement" given by the Contractor in its capacity as 'subcontractor' (as that term is defined in the Workers Compensation Act 1987, Pay-Roll Tax Act 1971 and Industrial Relations Act 1996) which is a written statement:
   (a) under section 175B of the Workers Compensation Act 1987 in the form and providing the detail required by that legislation;
   (b) under section 18(6) of schedule 2 of part 5 of the Pay-Roll Tax Act 2007 in the form and providing the detail required by that legislation; and
   (c) under section 127 of the Industrial Relations Act 1996 in the form and providing the detail required by that legislation.

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

13. All statutory declarations and Subcontractor's Statements received by the Contractor from subcontractors were:
   (a) given to the Contractor in its capacity as 'principal contractor' as defined in the Workers Compensation Act 1987, the Pay-Roll Tax Act 2007 and the Industrial Relations Act 1996 ("Acts"); and
   (b) given by the subcontractors in their capacity as 'subcontractors' as defined in the Acts.

14. I am not aware of anything which would contradict the statements made in the statutory declarations or written statements provided to the Contractor by its subcontractors, as referred to in this declaration.
I make this solemn declaration conscientiously believing the same to be true and by virtue of the Oaths Act 1900 (NSW). I am aware that I may be subject to punishment by law if I wilfully make a false statement in this declaration.

Declared at ........................................ on .............................................................

(place) (day) (month) (year)

(Signature of Declarant)

Before me:

..........................................................

(Signature of person before whom the declaration is made)

..........................................................

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

..........................................................

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

* The declaration must be made before one of the following persons:
  - where the declaration is sworn within the State of New South Wales:
    (i) a justice of the peace of the State of New South Wales;
    (ii) a solicitor of the Supreme Court of New South Wales with a current practising certificate; or
    (iii) a notary public.
  - where the declaration is sworn in a place outside the State of New South Wales:
    (i) a notary public; or
    (ii) any person having authority to administer an oath in that place.
SUBCONTRACTOR'S STATEMENT

REGARDING WORKERS COMPENSATION, PAYROLL TAX AND REMUNERATION
(Note 1 - see back of form)

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

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

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

Subcontractor: ................................................................................................................ ABN: .................................................................

(Business name)

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

has entered into a contract with ................................................................................................................ ABN: .................................................................

(Business name of principal contractor) (Note 2)

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

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

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

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

(a) The abovementioned Subcontractor has either employed or engaged workers or subcontractors during the above period of this contract. Tick [ ] if true and comply with (b) to (g) below, as applicable. If it is not the case that workers or subcontractors are involved or you are an exempt employer for workers compensation purposes tick [ ] and only complete (f) and (g) below. You must tick one box. (Note 6)

(b) All workers compensation insurance premiums payable by the Subcontractor in respect of the work done under the contract have been paid. The Certificate of Currency for that insurance is attached and is dated ....../....../...... (Note 7)

(c) All remuneration payable to relevant employees for work under the contract for the above period has been paid. (Note 8)

(d) Where the Subcontractor is required to be registered as an employer under the Payroll Tax Act 2007, the Subcontractor has paid all payroll tax due in respect of employees who performed work under the contract, as required at the date of this Subcontractor’s Statement. (Note 9)

(e) Where the Subcontractor is also a principal contractor in connection with the work, the Subcontractor has in its capacity of principal contractor been given a written Subcontractor’s Statement by its subcontractor(s) in connection with that work for the period stated above. (Note 10)

(f) Signature ................................................................. Full name.................................................................

(g) Position/Title ................................................................................................................ Date ....../....../......

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

1. This form is prepared for the purpose of section 175B of the Workers Compensation Act 1987, Schedule 2 Part 5 Payroll Tax Act 2007 and section 127 of the Industrial Relations 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

ms of s127(8) of the Industrial Relations Act 1996, a person who gives the principal contractor a written statement knowing it to be false 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 subcontractor.

ms 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

Schedule 13 - Property Owner's Certificate

(Clause 3.4(c)(ii))

This deed poll is made the day of 20

To: Transport for NSW (ABN 18 804 239 602) (a NSW Government Agency constituted under the Transport Legislation Amendment Act 2011 (NSW)., of 18 Lee St Chippendale NSW 2008 (the "Principal").

By: [ ]

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

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

   [Insert description of works on property and property]

2. I/We confirm that our land has been rehabilitated and all damage and degradation on it repaired.

3. I/We release the Principal from all claims and actions which I/we may have arising out of or in connection with the works referred to in paragraph 1.

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

Executed as a deed poll.

Signed sealed and delivered by

in the presence of:

Signature

______________________________
Signature of Witness

______________________________
Name of Witness in full
Schedule 14 - Form of Subcontractor Deed

(Clause 2.2(e)(iv))

THIS DEED POLL is made on ......................................................, 20..... by

................................................................................., ACN.............. of

................................................................................., (the "Subcontractor").

RECITALS:

A. Transport for NSW (ABN 18 804 239 602) (a NSW Government Agency constituted under the Transport Legislation Amendment Act 2011 (NSW), of 18 Lee St Chippendale NSW 2008 (the "Principal") has entered into a contract with [ ] ("Contractor") for the construction of [ ] ("Works").

B. The Subcontractor has an agreement (the "Subcontract") with the Contractor for the execution and completion of the [ ] (the "Subcontract Works") for the Works.

C. It is a condition of the Subcontract that the Subcontractor executes this Deed Poll.

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

1. It will comply with its obligations under the Subcontract and upon completion of the Works, the Subcontract Works will satisfy the requirements of the Subcontract.

2. The persons named in the Schedule may assign or charge the benefits and rights accrued under this Deed Poll.

3. The Subcontractor:

   (a) must if required by a written notice by the Principal to sign a deed in the form of the attached Deed of Novation (Attachment 1) with such substitute contractor as the Principal may nominate; and

   (b) for this purpose irrevocably appoints the Principal to be its attorney with full power and authority to complete the particulars in and sign the attached Deed of Novation.

4. This Deed Poll is governed by the laws of the State of New South Wales.
5. This Deed Poll may not be revoked or otherwise modified without the prior written consent of the Principal.

6. The Subcontractor’s liability in respect of a breach of a particular obligation under this Deed Poll will be reduced to the extent to which the Subcontractor has already paid money to or performed work for the Contractor in respect of that breach.

PERSONS NAMED IN THE SCHEDULE TO THE DEED POLL

Transport for NSW (ABN 18 804 239 602)

Rail Corporation New South Wales (ABN 59 325 778 353)

EXECUTED AS A DEED POLL.

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

___________________________________________________________  _________________________________
Signature of Director                                              Signature of Secretary/other Director

___________________________________________________________  _________________________________
Name of Director in full                                          Name of Secretary/other Director in full
Attachment 1 (to Schedule 14)

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

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

RECITALS:

A. By deed dated [ ] (the "Deed") between:

   (i) Transport for NSW (ABN 18 804 239 602) (a NSW Government Agency constituted under the Transport Legislation Amendment Act 2011 (NSW), of 18 Lee St Chippendale NSW 2008 (the "Principal"); and

   (ii) Original Contractor,

   the Principal engaged the Original Contractor to undertake the Works (as defined in the Deed).

B. The Original Contractor has entered into an agreement ("Subcontract") with the Subcontractor for the execution and completion of the [ ] ("Subcontract Works") as part of the Works.

C. The Principal has terminated the Deed and has engaged Substitute Contractor to complete the Works.

D. The Principal and Substitute Contractor wish to effect a novation of the Subcontract.

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

1. Substitute Contractor must perform all of the obligations of the Original Contractor under the Subcontract which are not performed at the date of this deed. Substitute Contractor is bound by the Subcontract as if it had originally been named in the Subcontract in place of Original Contractor.

2. The Subcontractor must perform its obligations under, and be bound by, the Subcontract as if Substitute Contractor was originally named in the Subcontract in place of Original Contractor.

3. This deed is governed by the laws of New South Wales and the parties agree to submit to the non-exclusive jurisdiction of the courts of that state.

EXECUTED by the parties as a deed:

[Insert appropriate execution clauses]
### Schedule 15 - Options

(Clause 6.3)

<table>
<thead>
<tr>
<th>OPTION</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
<td></td>
</tr>
<tr>
<td>Adjustment to the Contract Sum:</td>
<td></td>
</tr>
<tr>
<td>Period for exercising the Option:</td>
<td></td>
</tr>
<tr>
<td>Works Brief Amendments:</td>
<td></td>
</tr>
<tr>
<td>Drawing Amendments:</td>
<td></td>
</tr>
</tbody>
</table>
Schedule 16 - Form of Contractor Deed Poll

(Clause 1.5)

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

By: [insert name of Contractor] (ABN [insert Contractor's ABN]) of [insert Contractor's address] ("Contractor"),

In favour of: [insert name of Beneficiary of Deed Poll] (ABN [insert Beneficiary's ABN]) of [insert Beneficiary's address] ("Owner").

RECITALS

A. Transport for NSW (ABN 18 804 239 602) (a NSW Government Agency constituted under the Transport Legislation Amendment Act 2011 (NSW), of 18 Lee St Chippendale NSW 2008 (the "Principal"), is responsible for developing the Commuter Car Parks Program ("Program").

B. As part of the Program TfNSW is responsible for procuring the execution and completion of certain works [insert details of project] (the "Works") on behalf of the Owner and the New South Wales Government, and has entered into a contract ("Main Contract") with the Contractor to achieve this.

C. The Owner is relying on TfNSW to procure the Contractor to execute and complete the Works in accordance with the Main Contract.

D. The Owner will suffer loss if TfNSW does not procure the Contractor to execute and complete the Works in accordance with the Main Contract.

E. It is a condition of the Main Contract that the Contractor executes this Deed Poll.

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

1. It will comply with its obligations under the Main Contract, including with respect to achieving Completion of each Portion and the Works by the relevant Date for Completion.

2. Upon Completion of the Works, the Works will satisfy the requirements of the Main Contract.

3. This clause 3 only applies where the Owner is Rail Corporation New South Wales (ABN 59 325 778 353). In consideration of the Owner making available to the Contractor Track Possessions the Contractor agrees that it must indemnify the Owner against all costs, expenses, losses or damages suffered or incurred by the Owner in respect of any delay to rail services or late return of Track Possessions arising out of or in connection with the Contractor's Activities.

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

During peak hours (trains having to arrive and depart Central Station between Monday and Friday (excluding public holidays) during the hours of 0600 and 0900, and 1600 and 1800, respectively) $30,000

During all other times                                      $15,000

4. The aggregate of the Contractor's liability to the Owner under this Deed Poll and the Contractor's liability to TfNSW under the Main Contract:

(a) will not exceed the liability which the Contractor would have had under the Main Contract if the Main Contract had named, as Principal, the Owner and TfNSW jointly and severally; and

(b) is subject to the same limitations of liability, and qualifications on such limitations of liability, as are specified in the Main Contract.

5. Any provision of this Deed Poll which seeks to limit or exclude a liability of the Contractor is to be construed as doing so only to the extent permitted by law.

6. The Owner may assign or charge the benefits and rights accrued under this Deed Poll.

7. This Deed Poll is governed by the laws of the State of New South Wales.

8. This Deed Poll may not be revoked or otherwise modified without the prior written consent of the Owner.

9. Where terms used in this Deed Poll are defined in the Main Contract, those terms have the meaning given to them in the Main Contract.

Executed as a deed poll.

Executed by [insert Contractor's name] ABN
[insert Contractor's ABN] by or in the presence of:

________________________________________   ____________________________________________
Signature of Director                          Signature of Secretary/other Director

________________________________________   ____________________________________________
Name of Director in full                       Name of Secretary/other Director in full
Schedule 17 - Deed of Guarantee and Indemnity

Deed of Guarantee and Indemnity

[                    ]
ABN [              ]
Principal

[                    ]
ABN [              ]
Guarantor
Deed of Guarantee and Indemnity made at [ ] ABN [ ] of [ ] on 20 [ ] ABN [ ] of [ ] ("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 and Interpretation

1.1 Definitions

In this Deed:

"Contract" means the [insert details] 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.

"Event of Insolvency" means:

(a) a "controller" (as defined in section 9 of the Corporations Act 2001 (Cth)), manager, trustee, administrator, or similar officer is appointed in respect of a person or any asset of a person;

(b) a liquidator or provisional liquidator is appointed in respect of a corporation;

(c) any application (not being an application withdrawn or dismissed within 7 days) is made to a court for an order, or an order is made, or a meeting is convened, or a resolution is passed, for the purpose of:

(i) appointing a person referred to in paragraphs (a) or (b);

(ii) winding up a corporation;

(iii) proposing or implementing a scheme of arrangement;
(d) any event or conduct occurs which would enable a court to grant a petition, or an order is made, for the bankruptcy of an individual or his estate under any Insolvency Provision;

(e) a moratorium of any debts of a person, a personal insolvency agreement or any other assignment, composition or arrangement (formal or informal) with a person’s creditors or any similar proceeding or arrangement by which the assets of a person are subjected conditionally or unconditionally to the control of that person’s creditors or a trustee, is ordered, declared or agreed to, or is applied for and the application is not withdrawn or dismissed within 7 days;

(f) a person becomes, or admits in writing that it is, is declared to be, or is deemed under any applicable law to be, insolvent or unable to pay its debts; or

(g) any writ of execution, garnishee order, mareva injunction or similar order, attachment, distress or other process is made, levied or issued against or in relation to any asset of a person.

"GST" means any goods and services tax, consumption tax, value added tax or any similar tax, impost or duty imposed by any law of the Commonwealth of Australia or any State or Territory of the Commonwealth of Australia (whether in force before or coming into force after the date of this Deed).

"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.

"Taxes" means all present and future taxes, levies, imposts, deductions, charges, fees and withholdings, in each case plus interest, related penalties, and any charges, fees or other amounts in respect of any of them.

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:

(a) headings are for convenience only and do not affect interpretation and unless the context indicates a contrary intention:

(b) if the Contractor is more than one person, “Contractor” means each of them severally and all of them jointly;

(c) if the Guarantor is more than one person, “Guarantor” means each of them severally and all of them jointly;

(d) the expression “person” includes an individual, the estate of an individual, a corporation, an authority, an association or a joint venture (whether incorporated or unincorporated), a partnership, and a trust;

(e) a reference to any party includes that party’s executors, administrators, successors and permitted assigns, including any person taking by way of novation;

(f) a reference to any document (including this Deed) is to that document as varied, novated, ratified or replaced from time to time;

(g) a reference to any statute or to any statutory provision includes any statutory modification or re-enactment of it or any statutory provision substituted for it, and all ordinances, by-laws, regulations, rules and statutory instruments (however described) issued under it;
(h) words importing the singular include the plural (and vice versa), and words importing a gender include every other gender;

(i) references to parties, clauses, schedules, exhibits or annexures are references to parties, clauses, schedules, exhibits and annexures to or of this Deed, and a reference to this Deed includes any schedule, exhibit or annexure to this Deed;

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

(k) the word “includes” in any form is not a word of limitation; and

(l) a reference to “$” or “dollar” is to Australian currency.

1.4 No contra proferentem

No term or provision of this Guarantee will be construed against a party on the basis that the Guarantee or the term or provision in question was put forward or drafted by that party.

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 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.

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:
   (i) any person, whether named as a party or not, does not execute this Deed;
   (ii) the execution of this Deed by any person is invalid, forged or irregular in any way; or
   (iii) 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) (Event of Insolvency): the occurrence before, on or at any time after the date of this Deed, of any Event of Insolvency in relation to the Contractor or the Guarantor;

(b) (Distribution): the receipt by the Principal of any payment, dividend or distribution under any Insolvency Provision in relation to the Contractor or the Guarantor;

(c) (Event of Default): the occurrence of any Event of Default;

(d) (Invalidity etc.): 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) (Further Security): the Principal accepting or declining to accept any Security from any person at any time;

(f) (Time or indulgence): the Principal granting time, waiver or other indulgence or concession to, or making any composition or compromise with, the Contractor or the Guarantor;

(g) (Forbearance): 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) (Acquiescence or other omission): any laches, acquiescence or other act, neglect, default, omission or mistake by the Principal;

(i) (Repudiation): 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) **Variation**: 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) **Release**: 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) **Change of constitution**: 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) **Transfer**: 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) **Disclosure**: 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) **Covenant not to take action**: 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) **Death or incapacity**: (where the Guarantor is an individual) the death or mental incapacity of the Guarantor; or

(q) **Administration**: the provisions of section 440J of the Corporations Act 2001 (Cth) operating to prevent or delay:
   (i) the enforcement of this Deed against any Guarantor; or
   (ii) 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**

The Guarantor need not consent 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:
   (i) the Guarantor from its obligations under this Deed; or
   (ii) 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:
   (i) the Guarantor from its obligations under this Deed; or
   (ii) 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) (Restitution of rights): 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) (Restore Principal's position): 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) (Indemnity): 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) (Legally binding obligation): this Deed constitutes a valid and legally binding obligation of the Guarantor in accordance with its terms;

(b) (Execution, delivery and performance): the execution, delivery and performance of this Deed by the Guarantor does not breach any Statute or 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 material adverse effect): 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) (Information): 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;

(e) (No trusts): the Guarantor is not the trustee of any trust nor does it hold any property subject to or impressed by 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) (Due incorporation): 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) (Constitution): 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 Stock Exchange Limited or on any other stock exchange, those listing requirements or business rules;

(c) (Corporate power): 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) (Filings): 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;
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 at market rates prevailing at or about the time of its receipt of the amount of the Payment 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) (Preparation): the preparation, negotiation and execution of this Deed and any subsequent consent, agreement, approval, waiver, amendment to or discharge of this Deed; and

(b) (Enforcement): any exercise, enforcement or preservation, or attempted exercise, enforcement or preservation, of any rights under this Deed.

8.2 Stamp duties

(a) (Payment of all duties): 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) (Indemnity): 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, the Contract or 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 10.8 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 10.8 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 General principles

The parties further agree to the following general principles relating to the procedure of the arbitration:

(a) that they have chosen arbitration for the purposes of achieving a just, quick and cost-effective resolution of any dispute;

(b) that any arbitration conducted pursuant to this clause shall not necessarily mimic court proceedings and the practices of those courts will not regulate the conduct of the proceedings before the arbitral tribunal;

(c) that in conducting the arbitration, the arbitral tribunal must take into account the matters set out above, particularly in deciding issues such as:

(i) how many written submissions will be allowed;

(ii) where appropriate, the length of written submissions;

(iii) the extent of document discovery permitted, if any;

(iv) the consolidation of arbitration proceedings, when requested;

(v) the joinder of parties or the consolidation of proceedings, when requested;

(vi) the length of any hearing; and

(vii) the number of experts, if any, each party is allowed to appoint; and

(d) that the arbitral tribunal has the power to grant all legal, equitable and statutory remedies, except punitive damages.

10.5 Expedited proceedings

(a) The parties agree that the arbitral tribunal will conduct the arbitration as expeditiously as possible and no party will unnecessarily delay the arbitration proceedings.

(b) All evidence in chief will be in writing, unless otherwise ordered by the arbitrator.

(c) Each party may only rely upon one expert witness in respect of any recognised area of specialisation, unless otherwise ordered by the arbitral tribunal.

(d) After consultation with the parties the arbitral tribunal will determine whether to conduct the proceedings on the basis of documents and other materials only or whether an oral hearing will be held. In doing so the arbitral tribunal shall have particular regard to the parties' request for an expedited procedure and the rules of natural justice.

(e) If the arbitral tribunal determines that an oral hearing will be conducted, the following principles will apply in respect of the oral hearing:

(i) the duration of the oral hearings shall be fixed by the arbitral tribunal;

(ii) unless otherwise ordered by the arbitral tribunal, the oral hearing shall be conducted on a stop-clock basis with the effect that the time available to the parties will be split equally between the parties so that each party shall have the same time to conduct its case unless, in the opinion of the arbitral tribunal, such a split would breach the rules of natural justice or is unfair to one of the parties;

(iii) oral evidence in chief at the hearing shall be permitted only with the permission of the arbitral tribunal for good cause;
(iv) not less than 14 days prior to the date fixed for the oral hearing, or any other period of time specified by the arbitrator, each party shall give written notice of those witnesses (both factual and expert) of the other party that it wishes to attend the hearing for cross-examination; and

(v) in exceptional circumstances the arbitrator may extend the time for the oral hearing set pursuant to paragraph (i) above.

10.6 Consolidation
The parties agree that section 24 of the International Arbitration Act 1974 (Cth) will apply in respect of consolidations.

10.7 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.

10.8 Award final and binding
Any award will be final and binding upon the parties.

11. Miscellaneous

11.1 Notices
Any communication under or in connection with this Deed:
(a) must be in writing;
(b) must be addressed as shown below:

Principal
Name: [Insert]
Address: [Insert]
Fax no: [Insert]
For the attention of: [Insert]

Guarantor
Name: [Insert]
Address: [Insert]
Fax no: [Insert]
For the attention of: [Insert]
(or as otherwise notified by that party to the other party from time to time);

(c) must be signed by the party making the communication or (on its behalf) by the solicitor for, or by any attorney, director, secretary, or authorised agent of, that party;

(d) must be delivered or posted by prepaid post to the address, or sent by fax to the number, of the addressee, in accordance with clause 11.1(b); and

(e) will be deemed to be received by the addressee:

(i) (in the case of prepaid post) on the third business day after the date of posting to an address within Australia, and on the fifth business day after the date of posting to an address outside Australia;

(ii) (in the case of fax) at the local time (in the place of receipt of that fax) which then equates to the time at which that fax was sent as shown on the transmission report which is produced by the machine from which that fax is sent and which confirms transmission of that fax in its entirety, unless that local time is a non business day, or is after 5.00 pm on a business day, when that communication will be deemed to be received at 9.00 am on the next business day; and

(iii) (in the case of delivery by hand) on delivery at the address of the addressee as provided in clause 11.1(b), unless that delivery is made on a non business day, or after 5.00 pm on a business day, when that communication will be deemed to be received at 9.00 am on the next business day,

where "business day" means a day (not being a Saturday or Sunday) on which banks are generally open for business in the place of receipt of that communication.

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 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.

11.6 Remedies cumulative

Each Power is cumulative and in addition to each other Power available to the Principal.

11.7 Waiver

(a) Failure to exercise or enforce or a delay in exercising or enforcing or the partial exercise or enforcement of any Power 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 Power.

(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 of a breach of any term of this Deed will operate as a waiver of another breach of that term or of a breach of any other term of this Deed.

11.8 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.

11.9 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.

11.10 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 11.10(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 11.10(a) against the Guarantor, the Principal will promptly notify the Guarantor of details of that set-off.
11.11 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 on one or more separate counterparts, each of which constitutes the deed of that Guarantor.

Executed as a deed.

Executed by: 

[Signature of Director]

Name of Director in full: 

[Name of Director in full]

by or in the presence of: 

[Signature of Secretary/other Director]

Name of Secretary/other Director in full: 

[Name of Secretary/other Director in full]
Schedule 18 - Deed of Novation

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

1. Transport for NSW (ABN 18 804 239 602) (a NSW Government Agency constituted under the Transport Legislation Amendment Act 2011 (NSW), of 18 Lee St Chippendale NSW 2008 (the "Principal")

2. [ ] ABN [ ] of [ ] ("New Principal"); and

3. [ ] ABN [ ] of [ ] ("Contractor").

Recitals

A. By agreement dated [ ] (the "Contract"), the Principal engaged the Contractor to, and the Contractor agreed to, undertake certain works for the Principal.

B. Under clause 16.23 of the General Conditions which form part of the Contract, the Contractor must enter into this deed when the Principal requires it to do so.

C. Subject to this deed, the Contractor agrees to accept the New Principal in place of the Principal for the performance of all the obligations of the Principal and to release completely and discharge the Principal from all of its obligations under the Contract and from all claims and demands in respect of it.

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

1. The Contractor must perform its obligations under, and be bound by, the Contract as if the New Principal was originally named in the Contract as the Principal.

2. The Contractor:
   (a) releases and forever discharges the Principal from its obligations under the Contract and from all claims and demands in respect of the Contract; and
   (b) accepts the liability of the New Principal in place of the liability of the Principal in respect of the Contract.

3. The New Principal must perform all the obligations of the Principal under, and be bound by, the Contract as if the New Principal were originally named in the Contract as the Principal.

4. Upon the execution and exchange of this deed:
   (a) the Principal must release any securities given to it by the Contractor in accordance with the Contract;
   (b) the Contractor must give the New Principal security in the same form and for the same amounts as any security required by the Contract; and
   (c) the Contractor must ensure that the New Principal is appropriately noted on all relevant insurance policies as required by the Contract.

5. The New Principal must pay all stamp duty and any penalties in respect of this deed.
6. This deed is governed by the laws of New South Wales and the parties agree to submit to the non-exclusive jurisdiction of the courts of that state.

EXECUTED by the parties as a deed:

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

Signature of Director

Name of Director in full

Name of Secretary/other Director in full

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

Signature of Director

Name of Director in full

Name of Secretary/other Director in full

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

Signature of Director

Name of Director in full

Name of Secretary/other Director in full
Schedule 19 - Contractor's Certificate of Construction Compliance

(Clauses 7.1(b) and 11.2(g)(ii))

<table>
<thead>
<tr>
<th>CONTRACTOR:</th>
<th>WORK PACKAGE</th>
<th>DESCRIPTION</th>
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(Attach schedule of work packages if insufficient space)

I certify that the procurement/construction of the work packages or part thereof described above have been completed to the extent indicated above in accordance with the requirements of the Contract between the Principal and , and comply with the requirements of the Contract, subject to the register of outstanding minor construction non-conformance and unresolved issues attached.

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

NAME: ____________________ SIGNATURE: ____________________ DATE: / /

(Contractor's Representative)
THIS SECTION MUST BE COMPLETED BY THE RELEVANT CONTRACTOR'S SUBCONTRACTOR/DESIGNER

I certify that the procurement/construction of the work packages (one certificate per work package) or part thereof described above have been completed to the extent indicated above in accordance with the requirements of the Contract between the Principal and ____________________________, and comply with the requirements of the Contract, subject to the register of outstanding minor construction non-conformances and unresolved issues attached.

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

SIGNATURE: ____________________________
(Contractor's Subcontractor/Designer)

DATE: ____________________________
**Schedule 20 - Contractor's Certificate of Completion**

(Definition of "Completion" in Clause 1.1 and Clause 12.3(c))

<table>
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<tr>
<th>CONTRACTOR'S CERTIFICATE OF COMPLETION</th>
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<tr>
<td><strong>CONTRACTOR:</strong></td>
</tr>
<tr>
<td>Description of Portion or Works:</td>
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</table>

I certify that the Completion of the above Portion/the Works has/have been achieved in accordance with the requirements of the Contract between the Principal and , complies with the requirements of the Contract, subject to the register of unresolved issues attached.

I further certify that:

(a) All Variation Orders (including concessions) are listed in the attached compliance register.

(b) All identified Defects (including any non-conformities but excluding Defects accepted as minor by the Principal) have been satisfactorily rectified and their documentation closed out.

(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 Works.

**SIGNATURE:** ______________________  **SIGNATURE:** ______________________

**DATE:** ______________________  **DATE:** ______________________

(Contractor's Representative)  (Contractor's Subcontractor/Designer)
Schedule 21 Contractor's Certificate of Final Completion

(Definition of "Final Completion" in Clause 1.1 and Clause 12.3(c))

<table>
<thead>
<tr>
<th>CONTRACTOR'S CERTIFICATE OF FINAL COMPLETION</th>
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<tbody>
<tr>
<td>I hereby certify that Final Completion has been achieved by[ the Contractor] in accordance with the requirements of the Deed (including all Variation orders detailed in (a) below) between the Principal and the Contractor.</td>
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<tr>
<td>I further certify that:</td>
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<tr>
<td>(a) All Variation Orders (including concessions) are listed in the attached compliance register.</td>
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<tr>
<td>(b) All Identified Defects (including any non-conformities have been satisfactorily rectified and their documentation closed out.</td>
</tr>
<tr>
<td>(c) All required documentation has been submitted.</td>
</tr>
<tr>
<td>(d) All notices regarding system deficiencies have been satisfactorily closed out.</td>
</tr>
<tr>
<td>I further certify that the attached compliance records as required by the Deed reflect the true status of the Portion/the Works.</td>
</tr>
<tr>
<td>SIGNATURE: ___________________________ DATE: / / /</td>
</tr>
<tr>
<td>(Contractor's Representative)</td>
</tr>
</tbody>
</table>
Schedule 22 - Form of Other Contractor Deed Poll

This Deed Poll made the day of 2011

In favour of: [insert details] (ABN [insert details]) of [insert details]

("Contractor")

[insert details] (ABN [insert details]) of [insert details]

("Principal")

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

("Other Contractor")

Recitals

A. By a contract dated [insert date] ("Contract") between the Principal and the Contractor, the Contractor agreed to design and construct certain works ("Works"), on the land more particularly described in the Contract (the "Site").

B. The Other Contractor has been appointed under a Contract ("Other Contract") to undertake certain works on the Site ("Other Contractor Works").

C. For the purposes of the Work Health and Safety Act 2011 (NSW) and the Work Health and Safety Regulation 2011 (NSW) (together, the "WHS Legislation"), the Works and the Other Contractor Works are a 'construction project' within the meaning of the WHS Legislation.

D. Under the Contract, the Principal engaged the Contractor as principal contractor and authorised the Contractor to have management and control of the workplace for the purpose of discharging the duties imposed on a principal contractor for the construction project.

E. Under the provisions of the Contract, the Principal is required to procure the provision of this Deed Poll from each Other Contractor that undertakes Other Contractor Works (as that term is defined in the Contract).

This Deed Poll Provides

1. In consideration of the Contractor accepting this Deed Poll, the Other Contractor agrees that

   (a) the Other Contractor, its subcontractors and their respective personnel while they are on the Site, will comply with Site safety regulations, any Site rules or regulations and with all directions of the Contractor with respect to work health and safety;

   (b) the Other Contractor, its subcontractors and their respective personnel will comply in a timely manner with directions of the Contractor so that the Contractor discharges its obligations as principal contractor;

   (c) the Other Contractor, its subcontractors and their respective personnel will consult, cooperate and coordinate activities with the Contractor, the Principal and all other persons who have a work health and safety duty in relation to the same matter;

   (d) the Other Contractor, its subcontractors and their respective personnel will comply with the work health and safety plan(s) prepared by the Contractor while on Site;
(e) the Contractor may exclude the Other Contractor, any of its subcontractors and their respective personnel from the Site for work health and safety reasons;

(f) the Contractor may direct the Other Contractor, any of its subcontractors and their respective personnel to perform or not perform certain acts for work health and safety reasons;

(g) where high risk construction work is to be carried out in the performance of the Other Contractor Works, the Other Contractor must:
   (i) prepare a safe work method statement that complies with all requirements of the WHS Legislation;
   (ii) provide a copy of the safe work method statement to the Principal and the Contractor prior to the commencement of high risk construction work;
   (iii) review and revise the safe work method statement in accordance with the WHS Legislation;
   (iv) ensure that the high risk construction work is carried out in compliance with the safe work method statement; and
   (v) where so directed by the Contractor, suspend the performance of any high risk construction work;

(h) the Other Contractor shall in carrying out the work under the Other Contract, comply with, and ensure that all subcontractors and personnel comply with the WHS Legislation;

(i) in its contracts with subcontractors, the Other Contractor will ensure that the subcontractor is obliged to give the same obligations and rights as required of the Other Contractor under this Deed Poll.

2. The Other Contractor indemnifies the Contractor against any delay, damage, expense, loss, penalty or liability suffered or incurred by the Contractor as a result of:

(a) any failure by the Other Contractor to comply with any direction given by the Contractor in accordance with this Deed Poll; or

(b) any breach by the Other Contractor, any of its subcontractors or their respective personnel of:
   (i) their respective contractual or legislative work health and safety obligations; or
   (ii) the provisions of this Deed Poll.

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

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

Signature of Director

Signature of Secretary/other Director

Name of Director in full

Name of Secretary/other Director in full
Schedule 23 - Form of Interface Agreement Deed Poll in favour of RailCorp and Transport for NSW

This deed poll ("Deed Poll") made the day of 2012

By: Gartner Rose Pty Ltd (ABN 31 059 738 242) of Unit 15B / 390 Eastern Valley Way, Chatswood NSW 2067 ("Contractor"),

in favour of: Rail Corporation New South Wales (ABN 59 325 778 353) a corporation constituted by section 4(1) of the Transport Administration Act 1988, of Level 6, 18 Lee Street, Chippendale NSW 2008 ("RailCorp").

Transport for New South Wales (ABN 18 804 239 602) a corporation constituted by section 3C(1) of the Transport Administration Act 1988 (NSW), of Level 5, Tower A Zenith Centre, 821 Pacific Highway, CHATSWOOD NSW 2067 ("TfNSW")

Recitals

A. RailCorp operates the commuter rail system in Sydney, including the Cardiff Station and surrounds where the Cardiff Station Upgrade (the "Project") is to be undertaken by the Contractor and others.

B. TfNSW is responsible for developing certain major railway systems and other major transport projects.

C. TfNSW is responsible for procuring the execution and completion of the Project, and has entered into a safety interface agreement dated 17 February 2012 for the Stations Accessibility Program ("Interface Agreement") with RailCorp to cover the Project.

D. RailCorp is relying on TfNSW to procure the Contractor (with others) to execute and complete the Project in accordance with the Contract to ensure that RailCorp will satisfy, among other things, its obligation to provide an operating commuter rail system.

E. RailCorp will suffer loss if TfNSW does not procure the Contractor to execute and complete the Works in accordance with the Contract and the Interface Agreement.

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

1. It will comply with its obligations under the Interface Agreement.

2. During and upon Completion of the Project, the Contractor’s Activities will satisfy the requirements of the Interface Agreement.

5. RailCorp and TfNSW may assign or charge the benefits and rights accrued under this Deed Poll.

6. This Deed Poll is governed by the laws of the State of New South Wales.

7. This Deed Poll may not be revoked or otherwise modified without the prior written consent of RailCorp and TfNSW.

8. Where terms used in this Deed Poll are defined in the Contract or the Interface Agreement, those terms have the meaning given to them in the Contract or the Interface Agreement.
Executed as a deed poll.

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

[Signature of Director] [Signature of Secretary/other Director]

MARC MAXWELL WITHAM   DANIEL GILES ROSE
Name of Director in full       Name of Secretary/other Director in full
EXHIBIT A – TfNSW STANDARD REQUIREMENTS

The TfNSW Standard Requirements comprises the following documents:

a) TSR Prelude
b) TSR Q1 – Quality Management System
c) TSR S1 – Safety Management System
d) TSR E1 – Environmental Management System
e) TSR C1 – Communications and Community Liaison
f) TSR O1 – Operational Readiness and Commissioning
g) TSR A1 – Asset Management Information (RailCorp)
h) TSR T1 – Technical Management
TfNSW Standard Requirements
TSR Prelude

50-FT-176/1.0

Standard Applicable to: Transport Projects Division

TfNSW Management System

Status: Draft
Division: Transport Projects
Version: 1.0
Date of issue: 31 January 2012
Effective date: 31 January 2012
Review date: 31 January 2013
Document owner: Technical Director Commercial
Security classification: Open Access

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ANNEXURE A - Additional Project Requirements

ANNEXURE B - List of Reference Documents

ANNEXURE C - Requirements for Discipline-Specific Management Plans
1 General

1.1 Scope

The TfNSW Standard Requirements (TSRs) describe certain requirements for working on a TfNSW project, including in relation to:

(a) quality assurance and management;
(b) occupational health and safety;
(c) environmental management;
(d) working in the Rail Corridor and the rail environment;
(e) incident management and reporting;
(f) communications and community liaison;
(g) technical management;
(h) asset management information;
(i) compliance management; and
(j) operational readiness and commissioning.

The TSRs consists of the following documents:

(k) TSR Prelude (this document);
(l) TSR Q1 - Quality Management;
(m) TSR S1 - Safety Management;
(n) TSR E1 - Environmental Management;
(o) TSR C1 - Communications and Community Liaison;
(p) TSR T1 - Technical Management;
(q) TSR O1 - Operational Readiness and Commissioning;
(r) TSR A1 - Asset Management Information; and
(s) Alliance TSR (applicable to Alliance contracts only).

This TSR Prelude describes the requirements for:

(t) preparing, developing, implementing and maintaining a Contract Management Plan;
(u) participating in the Principal’s surveillance and audit activities; and
(v) working in the Rail Corridor and rail environment.

1.2 Currency of Reference Documents

Applicable reference documents are listed in an Annexure of each document in the TfNSW Standard Requirements' suite of documents.
1.3 Terms and Definitions

Unless noted otherwise, wherever used in the TfNSW Standard Requirements, words and phrases defined in the Contract or the General Conditions of Contract have the meaning given to them in the Contract or the General Conditions of Contract. In addition to this the following words or phrases have the meaning given to them below:

“BRS” means Business Requirements Specification.

“CHAIR” means the Construction Hazard Assessment Implication Review, safety in design tool published by WorkCover NSW.

“Commissioning” means the systematic process of ensuring that all infrastructure, equipment and systems installed in a project perform interactively in accordance with the design intent and the user's functional and operational needs.

“Competent Person” means a person identified and certified within an organisation to have sufficient skills and knowledge of a specific engineering or architectural discipline, to be responsible for the development of the design, or for checking the design, or for verifying the design, or for verifying construction compliance with the detailed design.

“Configuration Board” means person or a group of persons identified by RailCorp who are assigned responsibility and authority to make decisions on the configuration.

“Contract Management Plan” or “CMP” is the Contractor’s overarching management plan that captures in a coordinated and integrated approach any and all other management systems and management plans that the Contractor may be required to develop under the Contract.

“Contractor’s Environmental Manager” means the Contractor’s representative that has defined responsibilities and authority to ensure that an environmental management system is established, implemented and maintained in accordance with the Contract and reports to the Contractor’s senior management on the performance of the environmental management system for review and improvement.

“Danger Zone” has the same meaning as given in RailCorp RailSafe Network Rules.

“Designer” means a Competent Person who will undertake design activities to produce a design output satisfying the design input requirements through the correct application of RailCorp, RMS and external standards and relevant legislative requirements.

“Design Checker” means a Competent Person who was not directly responsible for producing the design solution, who will undertake a systematic review of design assumptions, calculations, methodology, use of standards and compliance with mandatory requirements as part of the design process, for confirming that the design output meets the design input requirements.

“Ecologically Sustainable Development” or “ESD” is defined as development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends. It reflects the environmental philosophy of the NSW Government that is outlined in section 6(2) of the Protection of the Environment Administration Act 1991 (NSW).

“Hazardous Material” means any hazardous substance, dangerous good or other material that could adversely affect the health or safety of the public, handlers of the material or persons in the workforce.

“Inspection Record” means the evidence of observation associated with the Contractor’s Activities.
"Inspection and Test Plan" or "ITP" means the plans and forms that are used for recording inspection or test results with the facility to sign-off the completed and compliant inspection or test results.

"Interface Agreement" means an agreement entered into between TfNSW, RailCorp, and any other relevant party which appears in Exhibit I to the Contract.

"Local Possession Authority" has the same meaning as given in RailCorp RailSafe Network Rules.

"OEH" means the Office of Environment and Heritage.

"Operational Readiness" means the process which ensures that the primary functional or operational output of a project or a defined part of a project is ready to operate, with all necessary operational plans and approvals in place, fully trained operating staff, all external works and related projects completed and with the asset owner ready to accept the responsibility for ongoing operation and maintenance of the facility generated by the Works.

"Project Definition Documents" means the Works Brief.

"Protection Officer" has the same meaning as given in RailCorp RailSafe Network Rules.

"RailCorp Critical Resources" means the resources provided by RailCorp to support the Contractor's Activities as nominated in the Contract during Commissioning and Operational Readiness.


"Rail Transport Operator" means an entity as defined by the Rail Safety Act as a rail operator or rail transport operator.

"Railway Safety Work" has the same meaning as given to it in the Rail Safety Act.

"Railway Safety Worker" has the same meaning as given to it in the Rail Safety Act.

"RMS" means Roads and Maritime Services, a corporation constituted by section 46(1) of the Transport Administration Act 1988 (NSW). A reference in any of the TfNSW Standard Requirements documents to the "Roads and Traffic Authority" or "RTA" is to be construed as a reference to Roads and Maritime Services.

"Safety Alerts" means a document(s) that the Principal's Representative may issue from time to time to the Contractor which requires immediate safety action.

"Safety Hazard Log" means the document so titled initially prepared by TfNSW and further updated and maintained by the Contractor in accordance with the requirements set out in the Contract including TSR T1.

"Safe Work Method Statements" or "SWMS" means the documents so titled prepared in accordance with TSR S1.

"SFAIRP" means so far as is reasonably practicable.

"SRS" means System Requirements Specification.

"TfNSW Rail Safety Accreditation" means the accreditation held by TfNSW pursuant to the Rail Safety Act.

"Track Occupancy Authority" has the same meaning as given in RailCorp RailSafe Network Rules.
“Verifier” means a Competent Person who has not been involved in the development of the design, who will undertake an independent review of design assumptions, calculations, methodology, use of standards and compliance with mandatory requirements for all critical or safety related systems and elements of the design designated by the Principal, for confirming that those systems and elements as designed, meet the design input requirements.

“WHS” means Work, Health and Safety.

“WHS Risk Register” means the document so titled and prepared by the Contractor in accordance with the requirements of TSR S1.

“Worksite Protection” means 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” means the personnel assigned to implement the required Worksite Protection for work within the Rail Corridor.

1.4 Alliance specific Terms and Definitions

For an Alliance contract, unless noted otherwise, wherever used in the TfNSW Standard Requirements, the following words or phrases have the meanings as set out in the Project Alliance Agreement as well as below. Where a defined term below conflicts with a defined term in TSR Prelude Clause 1.3 the term below will apply:

“AFC Design Documentation” means the Design Documentation which:

(a) in the Alliance’s opinion, is sufficiently developed and complete that it can be used for the purpose of constructing that part of the Works and may be submitted to the TfNSW Representative for review in accordance with the requirements set out in TSR T1 and in the Project Alliance Agreement;

(b) has received a Configuration Change Notice;

(c) is marked by the Alliance as “AFC” or “Approved for Construction”; and

(d) is issued by the Alliance to TfNSW for its records.

“Authority Approval” means “Approval”.

“Contract” means “Agreement”.

“Contract Management Plan” means “Alliance Management Plan”.

“Contractor” means “Alliance”.

“Contractor’s Activities” means “Alliance Activities”.

“Contractor’s corporate systems” means “NOPs’ corporate systems”.

“Contractor’s design Subcontractor” means either the “Alliance’s design NOP(s)” or the “Alliance’s design Subcontractor(s)” as the case may be.

“Contract Management Plan” means “Alliance Management Plan”.

“Contractor’s organisation” means “NOPs’ organisations”.

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“Design Documentation” means all design documentation (including design standards, design reports, durability reports, construction descriptions, specifications, models, samples, calculations, drawings, digital records, computer software and all other relevant data) in computer readable and written forms, or stored by any other means, required to be produced by the Alliance to design and construct the Alliance Works.

“General Conditions” means “Project Alliance Agreement”.

“Other Contractor” means RailCorp or any contractor, consultant, artist, tradesperson, the Independent Estimator, the Financial Auditor or other person engaged by TfNSW or others to do work, other than the Alliance or Subcontractors.

“Principal” means “TfNSW”.

“Principal’s Representative” means “TfNSW Representative”.

“Project Definition Documents” means any or all of the following:

(a) The Project Brief;
(b) The Business Requirements Specification (BRS);
(c) The System Requirements Specification (SRS); and
(d) any other Project Definition Phase documents provided by the Principal.

“Interface Agreement” or “IA” means an agreement between the TfNSW, the Non-Owner Participants (NOPs) and RailCorp for the purpose of the Rail Safety Legislation.

“Temporary Works” means “Alliance Temporary Works”.

“Track Possession” means “Possession”.

“Works” means “Alliance Works”.

2 REQUIREMENTS FOR THE CONTRACT MANAGEMENT PLAN

2.1 Objectives

The Contractor must prepare, develop, implement and maintain a CMP to inform and direct personnel and others engaged by the Contractor about the specific work practices, resources, sequence of activities, controls and checks that are to be implemented during the execution of the Contractor’s Activities.

The CMP is the Contractor’s project-specific management system and overarching project-specific management plan that captures any and all other management systems and management plans that the Contractor is required to develop under the Contract.

The CMP must:

(a) explain in a systematic, coordinated and integrated structure the management method for executing the Contractor’s Activities in delivering the Works;
(b) define responsibilities, resources and processes for planning and performing the Contractor’s Activities;
(c) define responsibilities, resources and processes for verifying that the Contractor’s Activities meet the requirements of the Contract;
(d) cover all the project-specific management systems, project-specific management plans and project-specific deliverables required for the execution of the Contractor's Activities and to meet the requirements of the Contract;

(e) cross reference all other management plans where the Contract requirements are addressed;

(f) identify a roadmap to the development of the suite of discipline-specific management plans contained in the CMP;

(g) identify the responsible person for developing and updating the CMP and each discipline-specific management plan;

(h) describe how the Contractor will interact with TfNSW's functional groups to allow specific knowledge and experience of TfNSW to be utilised in the development of the discipline-specific management plans;

(i) document the interface between the project-specific management plans and the Contractor's corporate systems;

(j) explain the alignment of the operating processes of the Contractor, Subcontractors and the Principal's Representative;

(k) describe the method for making changes and modifications to the CMP during the progress of the Contractor's Activities and Works;

(l) maximise the understanding and acceptance by all parties of the management processes to be used for the execution of the Contractor's Activities; and

(m) For an Alliance contract, provide an overview of the Alliance Objectives, Alliance Principles and Alliance Targets which the Alliance Management Plan sets out to meet or to better.

2.2 Compliance

The Contractor must comply with the requirements of the following and the CMP must demonstrate how the requirements of the following, as applicable, will be achieved:

(a) the Contract;

(b) WHS Legislation;

(c) Rail Safety legislation;

(d) Roads Act 1993 (NSW) and associated regulations;

(e) Environmental Planning and Assessment Act (1979) and associated regulations;

(f) Independent Commission Against Corruption Act (1988) and associated regulations;

(g) Disability Discrimination Act (1992) and Disability Standards for Accessible Public Transport 2002;

(h) AS / NZS ISO 9001: 2000 Quality Management Systems - Requirements (or equivalent);

(i) AS / NZS ISO 14001: 2004 Environmental Management Systems (or equivalent) for environmental management planning;
Standard Requirements

AS / NZS ISO 19011: 2003 Guidelines for quality and/or environmental management systems auditing;

relevant RailCorp and Australian Standards;


Building Code of Australia;

Authorities;

NSW Government guidelines, standards and codes of practice for the various areas of management involved including the NSW Government Code of Practice for Procurement;

and

the management requirements of the Principal’s Representative, as advised by the Principal’s Representative, from time to time.

2.3 Scope of Contract Management Plan

2.3.1 General

The CMP is to provide a framework bringing together all the management requirements for the Contractor’s Activities into a coordinated and integrated plan.

The Contractor may attach other discipline-specific management plans, as listed in TSR Prelude Clause 2.4.2, to the CMP or address those discipline-specific management plan requirements within the body of the CMP.

Where the Contractor has amalgamated multiple management plans, the Contractor must demonstrate where the Contract requirements have been addressed through the use of a matrix or equivalent that enables the Principal’s Representative to easily identify how the Contractor has addressed the Contract requirements within the amalgamated management plan.

Each discipline-specific management plan must at least address the items below:

(a) **Policies**: A clear statement of policy for the discipline covered;

(b) **Objectives**: The objectives which the management plan seeks to address and processes to verify if the Contractor’s Activities and the Works are achieving these objectives;

(c) **Requirements**: The requirements, procedures and processes for the management and implementation of the relative plans and how these will be delivered, including the Contract, Authority Approvals, Laws, standards, codes, programs, agreements and proposed agreements, drawings and reports;

(d) **Documents/references**: Selected documents that are of ongoing importance for reference or monitoring, such as the development consent conditions. Where such documents are to be updated or are not immediately available, this should be noted in the plans;

(e) **Procedures and processes**: Procedures for the management and implementation of the relevant discipline-specific plans;
(f) **Roles and responsibilities:** The allocation of personnel roles, responsibilities and delegation of authority, including the division within and between the Contractor and Subcontractors;

(g) **Deliverables:** The various relevant Contract deliverables, including all records, reports and certificates and the outputs of the management process and procedures are to be detailed. The plans are to demonstrate how the requirements will be achieved;

(h) **Records:** A description of how the records of compliance, decisions and assumptions will be maintained;

(i) **Timing:** An identification and integration of the timing for key milestones and targets; and

(j) **Assurance Auditing:** Procedures for surveillance, self-checking and audit to confirm compliance of the Contractor’s Activities with the requirements of the discipline-specific management plans and the Contract, and the effectiveness of the Contractor’s management systems. This is to be undertaken through desktop surveillance, physical surveillance and auditing, whichever are appropriate.

Additional requirements for the discipline-specific management plans are listed in TSR Prelude Annexure C.

The CMP must incorporate a surveillance schedule and an audit schedule to be implemented for the project. This schedule must be reviewed and adjusted periodically during the Contract to ensure that the frequency and areas targeted are relevant for each stage of the project and the surveillance and audit regime undertaken by the Contractor is effective in monitoring compliance and identifying issues. The Principal’s surveillance and audit requirements are provided in TSR Prelude Clause 4. The Contractor is to include the Principal’s audit requirements in the Contractor’s CMP. The CMP is to explain how the Contractor will demonstrate traceability, verification and records keeping processes including all necessary assurances.

### 2.4 Submission and Review

#### 2.4.1 Review of Contract Management Plan and Deliverables

The CMP, discipline-specific management plans and Contract deliverables must be developed by the Contractor and submitted to the Principal’s Representative for review in accordance with the requirements of the Contract.

A staged submission of the CMP by the Contractor is acceptable subject to the following:

(a) the Contractor has sought and obtained approval from the Principal’s Representative for the staged submission;

(b) the initial version of the CMP submitted for review provides an outline of any components that are not fully developed and details the process proposed for their development and submission;

(c) the Contractor has provided the Principal with the timeframe for the submission of the subsequent parts to the CMP; and

(d) the submission of any management plans does not affect other timing requirements outlined in the Contract and TSR Prelude Clause 2.4.2.
2.4.2 Updating the Contract Management Plan

The Contractor must progressively monitor, amend, update and develop the CMP and discipline-specific management plans throughout the project to reflect the commencement of new stages of the Works and any changes in the manner of performing the Contractor’s Activities. Any proposed updates and modifications to the CMP must be provided to the Principal’s Representative for review in accordance with the requirements of the Contract. The Contractor must not decrease or otherwise reduce the commitments and requirements, including those relating to the scope, processes, procedures, effort, resources, experience or expertise, in the developed of any subsequently amended versions of the management plans.

The CMP must be reviewed by the Contractor in accordance with the requirements of ISO 9001 Clause 5.6, and ISO 14001 Clause 4.6 if the period of the Contractor’s Activities exceeds 6 months or if nominated in TSR Prelude Annexure A. The Contractor’s reviews must reassess the CMP’s suitability and effectiveness for the Contractor’s Activities.

The timing for the initial submission of management plans (that are part of the CMP) for review is as shown in the table in TSR Prelude Annexure A. Note that the plans listed in TSR Prelude Annexure A are not an exhaustive list of all plans required under the Contract.

For Alliance contracts, each management plan must be endorsed by the ALT prior to submission to the Principal.

Each of the following management plans should include a table listing its compliance with the TSR conditions and requirements:

(a) Contract Management Plan;
(b) Design Management Plan;
(c) Quality Management Plan;
(d) Environmental Management Plan;
(e) Project Safety Management Plan;
(f) Community Liaison Plan;
(g) Commissioning Management Plan;
(h) Asset Management Information Delivery Plan;
(i) Construction and Site Management Plan;
(j) Defect Management Plan; and
(k) Configuration Management Plan.
2.4.3 Documentation Submission

General

The Contractor must control all copies of the CMP, discipline-specific management plans and Contract deliverables in accordance with the Contract. The Contractor must provide the Principal's Representative with one original and three copies (one of which is unbound) of all submitted documents. In addition the Contractor must also submit an electronic copy on CD/DVD in PDF and native formats (such as Microsoft Word, Microsoft Excel, P6, CAD in *.dwg or *.dgn). The requirement for number of copies (hard and electronic versions) also applies when the Contractor is re-issuing documentation to the Principal's Representative.

The Contractor must promptly advise the Principal's Representative of any changes made to the submitted documents and re-submit the amended documents within 5 Business Days of the amendment, with the amendments clearly marked on the document.

Principal's Contract Deliverables Management Tool

Where nominated in TSR Prelude Annexure A, the Principal will administer the Contract deliverables using an electronic document management tool. The Contractor must provide regular input into the Principal's electronic document management tool.

The Contractor must incorporate into the CMP the Principal's administrative requirements for the acceptance, review and tracking of various Contract deliverables using the Principal's electronic document management tool.

3 Monthly Reporting

In the case of an Alliance contract, the monthly reporting requirements are set out in the Alliance TSR.

For all other contracts, the Contractor must prepare and submit to the Principal's Representative monthly progress reports on the 6th day of each month in accordance with the Contract updating and describing as a minimum:

(a) the status at the end of the previous month of the Contractor's Activities, as compared to the current Contractor Program and the Contractor's other programs;

(b) the planned progress of the Contractor's Activities over the forthcoming month and quarter;

(c) a list and timing of Hold Points and Witness Points planned for the forthcoming two (2) months;

(d) a description, including photographs, of the progress made on all current Contractor's Activities;

(e) a summary of the Contractor's financial status, including detailed final cost forecasts, and separate lists for the cost of approved Variations, Claims and outstanding claims for Variations;

(f) the number and categories of personnel and equipment currently engaged by the Contractor to carry out the Contractor's Activities (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 for the Contractor's Activities;
(g) the status of Design Documentation, major procurement orders, Subcontracts, manufacture and general construction;

(h) key dates for the anticipated submission of design packages at SDR, PDR, CDR, and AFC stages for the Principal’s review;

(i) the status of planning activities including Authority Approvals;

(j) monthly reliability statistics listing the following:
   (i) Incidents in Possession;
   (ii) Incidents in Non-Possession;
   (iii) Actual Incidents;
   (iv) Potential incidents in Possession; and
   (v) Potential incidents in Non-Possession;

(k) safety statistics, as required by the TfNSW Standard Requirements, including:
   (i) lost time injuries/diseases, time lost, WorkCover notices/fines and injuries to the public;
   (ii) details of safety audits (type, outcomes and non-conformances raised/closed), preventative action, accidents, occurrences and hazards; and
   (iii) results of drug and alcohol tests;

(l) any non-compliances with any Authority Approvals, non-conformances of the construction with design and non-conformances of construction processes, and the steps taken to address those non-compliances and non-conformances;

(m) any issues and non-compliances with environmental management requirements of the Contract (including the TfNSW Standard Requirements) and steps taken to address those non-compliances;

(n) any issues arising from or affecting the CMP (or the subject matter of the CMP);

(o) records of all corrective and preventative actions taken under the CMP (and the components thereof), and audits of such actions;

(p) co-operation, coordination, industrial relations and interface issues with Other Contractors;

(q) status of interface management with Interface Contractors;

(r) summary updates relating to community issues and potential community issues;

(s) complaints received by the Contractor in relation to the Contractor’s Activities;

(t) other key issues that have the potential to affect the Contractor’s Activities;

(u) any other information the Principal’s Representative reasonably requires;

(v) activities of the Dispute Resolution Board; and

(w) details of the status, implementation, operation and effectiveness of the Risk Management Plan. As a minimum, the Contractor must provide: a report on the risks deemed ’Extreme’ or ‘High’ by the TfNSW Risk Criteria as set out in the TCA Risk...
Management Standard (CS-ST-018); an overview of the full risk register (e.g. heat map, number of risks by category and rating, number of new risks identified and risks closed out during the previous month); the status of associated controls and tasks; and any results of risk audits.

4 Principal’s Collaborative Compliance Audits and Surveillance

4.1 Principal’s Audit and Surveillance

Audit, surveillance and inspection of the Contractor’s process and product may be conducted by the Principal’s Representative at any time. The Principal’s Representative may utilise independent TfNSW auditors and surveillance officer(s) to assist the Principal in audit, surveillance and inspection. The surveillance officer(s) will assist the Principal’s Representative in recording the progress and performance of the Contractor’s Activities (on site or off site). These records may be used by the Principal’s Representative for any purpose.

The Contractor must be cooperative in assisting the surveillance officer(s) in undertaking their duties.

4.2 Principal’s Collaborative Compliance Audits

The Principal will conduct audits on the Contractor’s compliance with the requirements of the Contract, the CMP and the TfNSW Management System. The CMP must describe the processes and procedures for proactively managing auditing requirements in consideration of the TfNSW Compliance Audit Standard (9TP-ST-020).

The Principal has established a working group to manage the collaborative audit process as detailed in TfNSW Compliance Audit Standard (9TP-ST-020) (“Compliance Working Group”). The Contractor and the Compliance Working Group will, on a collaborative basis, develop, agree and implement an audit program for both parties to undertake the various audits from feasibility and design through to the construction, testing, commissioning, handover and demobilisation phases of the project. The Compliance Working Group will process all audit requests from the Contractor, TfNSW Executive and/or the NSW Government. The Compliance Working Group will manage these requests to ensure a co-ordinated approach to auditing and to ensure a collaboration and cooperation approach to auditing is implemented throughout the project.

For an Alliance contract, the process for the management of audits performed by the Alliance Financial Auditor will be in accordance with the requirements of the Project Alliance Agreement and will not be co-ordinated via the Compliance Working Group.

The Contractor must attend the Compliance Working Group's meetings. Those meetings are to be held whenever requested by the Principal’s Representative, but are typically held on a monthly basis.

Procedures for updating the audit program are also to be included in the CMP. The Contractor must participate and assist the Principal in the development and completion of these audits. The Contractor’s involvement in the collaborative compliance audit process is summarized in the TfNSW Compliance Audit Standard (9TP-ST-020) Clauses 11, 12 and 13.

The Principal’s Representative will give at least 10 Business Days notice to the Contractor confirming that an audit is to be conducted.

When any audit is to be undertaken by the Principal, the Contractor must:
(a) 5 Business Days prior to the audit, submit to the Principal’s Representative one copy of the following documents:

(i) policies and manuals;
(ii) management plans;
(iii) management systems' procedures;
(iv) inspection and test plan templates and record forms; and
(v) design reports, environmental plans, safety plans etc;

(b) make available all records produced under the Contract;

(c) make suitable facilities available as agreed between the Principal's Representative and the Contractor to accommodate the audit and audit team; and

(d) provide all reasonable assistance during the audit including the participation of representatives from the Contractor’s organisation (and Subcontractors’ organisation(s) if the scope of the audit warrants) who can efficiently locate and produce the requested information for the audit. Assistance from technical specialists will also be provided by the Contractor as required by the Principal’s Representative during each audit.

Copies of documents submitted for the audit will be returned at the completion of the audit and finalisation of the audit report, if requested by the Contractor.

The Contractor must ensure that the audit report recommendations are actioned in accordance with appropriate corrective and preventive systems in a timely and agreed manner (refer to 9TP-ST-20). The Contractor must provide the Principal with the necessary cooperation and assistance in the management of the collaborative audit program, closeout of audit actions and the reporting of progress on audit action closeout.

The Contractor must provide the Principal's Representative with a copy of the results of any self verification and any audit, when requested by the Principal's Representative.

5 Working in and Adjacent to the Rail Corridor and Rail Environment

5.1 Operating Railway System

The Contractor acknowledges and agrees that:

(a) it is aware that RailCorp or other operator may continue to use areas adjacent to the Site as part of normal operations of the railway system on a commercial basis during the undertaking of the Contractor’s Activities;

(b) the continuance of normal operations of the railway system, including within the Rail Corridor, the Site, adjoining areas and railway stations, on a commercial basis by RailCorp or another operator during the performance of the Contractor’s Activities must be maintained to the satisfaction of the operator as notified by the Principal’s Representative. The Contractor must ensure that the railway system operations and infrastructure are not impeded or interfered with by reason of the performance of the Contractor’s Activities, except where this is approved in writing beforehand by the Principal’s Representative;
5.2 Configuration Management

Configuration Management is defined by AS ISO 10007-2003 as co-ordinated activities to direct and control configuration. Key elements of the process are:

(a) documenting the approved design of plant and equipment (plant configuration);

(b) managing and controlling changes to this configuration, including documentation of each change; and
(c) verifying that the physical installation remains consistent with design documentation.

RailCorp’s Configuration Management procedure is documented in RailCorp Engineering Procedure Design EPD 0014 V2.1 issued February 2010.

If the applicable configuration management process is RailCorp’s and changes are to be made to either the temporary or permanent rail infrastructure, these changes must be reviewed and approved by the Configuration Board prior to their implementation. The main aim of this process is to ensure that all relevant parties are aware of the change, and to ensure that the change meets the stakeholder’s requirements, and adequately addresses risks, safety, technical and operational issues.

As part of the Approved for Construction (AFC) review of the Contractor’s design submissions, the Principal will issue a Configuration Change Request (CCR) to RailCorp. The Configuration Board will review CCRs and determine whether due process has been followed. The Configuration Board will also determine whether all relevant stakeholders have been consulted, impacts of change have been adequately assessed and stakeholder issues have been addressed and closed. Acceptance of proposed changes by the Configuration Board will be advised by issuing a Configuration Change Notice (CCN).

On receipt of the CCN for a package or element of work, the Contractor may commence construction of that element of work. The Contractor may only commence a construction activity once all conditions precedent to the commencement of the construction activity have been met and AFC Design Documentation exists for the relevant package or element of work.

5.3 Project Safety Agreement and Work Activity Advice

The Contractor must complete and submit RailCorp Project Safety Agreement (PSA) (SMS-06-FM-1362) to the Principal’s Representative at least six (6) weeks prior to the planned works which also includes any works in a Track Possession. The Contractor must comply with the requirements of RailCorp Managing Project Interfaces (IMD-PR-032). With the exception of an Alliance contract, the Principal’s Representative will submit the PSA to RailCorp to define the resulting interfaces, requirements and conditions for work proceeding on or near RailCorp infrastructure. In the case of an Alliance contract, the Alliance Manager will issue the PSA to RailCorp.

Work Activity Advice (WAA) must be produced by the Contractor. Each WAA covers a particular part of the Works and includes the SWMS applicable to that part of the Works. Refer to TSR S1 for further requirements relating to the WAA process, submission and approval.

5.4 Arrangements for Track Possessions

With the exception of Alliance contracts, the track possessions available to the Contractor are set out in the Contract.

In the case of an Alliance, the requirements for possessions are to be developed during the Project Definition Phase.

Where power isolation is required, the Contractor must specify what power is required to be shut down and the time and duration required for the power isolation. This advice must be submitted to the Principal’s Representative at least 16 weeks prior to each Track Possession.
For each Track Possession to be utilised by the Contractor, the Contractor must attend and incorporate the requirements from:

(a) RailCorp "Tier 6 Possession Co-ordination Meeting", which is held approximately 12 weeks prior to the Track Possession. This meeting will decide the co-ordination of all activities in the Track Possession, working hours, movements of equipment and work trains in the Track Possession area;

(b) the "Possession Co-ordination Meeting" with RailCorp held approximately two (2) weeks prior to the Track Possession to discuss train movements and safe working; and

(c) the "Pre-Possession Meeting" with RailCorp, usually held prior to the Track Possession to confirm the detailed arrangements for the Track Possession and co-ordinate the activities of each party working in the Track Possession.

If a Track Possession involves an asset or partial asset being handed to the asset owner (even if only for maintenance prior to it being commissioned), then the following documents are required to be submitted to the Principal’s Representative, at least six (6) weeks prior to the Track Possession:

(d) SWMS;

(e) residual risk assessments;

(f) draft Asset Register in accordance with TSR A1;

(g) draft electrical operating diagrams;

(h) Technical Maintenance Plans in accordance with TSR A1 (only required for assets which are new to RailCorp);

(i) Design Documentation; and

(j) any other documents required as directed by the Principal. These documents must be approved by the Principal's Representative prior to commencing the Track Possession.

5.5 Additional Possessions

It is unlikely that weekend Track Possessions or RailCorp Critical Resources, in addition to those specified in the Contract or Track Possessions (with or without power) in overnight periods when trains are not running, will be available for the Contractor's Activities. If the Contractor requires additional Track Possessions, power isolation or RailCorp Critical Resources, they are to be arranged by the Contractor at the Contractor's own cost. This includes reimbursing the Principal for any costs that it has incurred in respect of granting the additional Track Possessions and procuring the RailCorp Critical Resources. In the case of an Alliance contract, the allocation of these additional costs will be in accordance with the commercial framework of the Agreement.

The 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 Contract.

Upon a written request by the Contractor, the Principal’s Representative will seek to facilitate obtaining additional Track Possessions and RailCorp Critical Resources for the Contractor by arranging a meeting between the Contractor and RailCorp. At this meeting or subsequent meetings, possible dates for Track Possessions or power isolations and additional RailCorp Critical Resources may be identified.
The Principal does not guarantee the granting of, and is not obliged to arrange additional Track Possessions or RailCorp Critical Resources on any particular date, or at all.

5.6 Worksite Protection Personnel

The party nominated in TSR Prelude Annexure A will provide Worksite Protection Personnel including any necessary rail safety devices, signage, line marking, hand signallers, lookouts, flagmen and barriers required for carrying out the Contractor's Activities within the Rail Corridor in accordance with RailCorp RailSafe Network Rules and RailCorp RailSafe Network Procedures and TfNSW Rail Safe Working (4TP-ST-014) and TfNSW Rail Safe Working Arrangements (4TP-PR-106).

If TSR Prelude Annexure A indicates that the Principal will provide the Worksite Protection Personnel, the Contractor must provide 10 business days' notice in writing to the Principal requesting the number of Worksite Protection Personnel required.

The Contractor must provide suitable accommodation within the Contractor's own Site offices for the Worksite Protection Personnel including a desk, a chair, phone and access to a facsimile machine and photocopier. The Contractor's own supervisory staff are required to cooperate with the Worksite Protection Personnel, so as to ensure a safe working environment whenever working in the Rail Corridor.

The Worksite Protection Personnel's primary duty is to keep the worksite and workers safe when in the Rail Corridor. In order for the Worksite Protection Personnel to fulfil this duty a safety assessment as described in the RailCorp RailSafe Network Rules and RailCorp RailSafe Network Procedures and TfNSW Rail Safe Working (4TP-ST-014) and TfNSW Rail Safe Working Arrangements (4TP-PR-106), must be undertaken. The Worksite Protection Personnel is required to:

(a) Hold a minimum of Worksite Protection Personnel Level 2 accreditation (see TfNSW standard 60-ST-004);
(b) assess the safety of the Contractor's Activities and the potential of the Contractor's Activities to intrude on the Danger Zone;
(c) ensure a safe place exists or can be created in the Danger Zone;
(d) prepare and communicate worksite protection plans;
(e) ensure all work is carried out safely and in accordance with the RailCorp RailSafe Network Rules and RailCorp RailSafe Network Procedures; TfNSW Rail Safe Working Standard (4TP-ST-014) and TfNSW Rail Safe Working Arrangements Procedure (4TP-PR-106); and
(f) keep records about worksite protection arrangements.

When carrying out Contractor's Activities in the Rail Corridor the Contractor must ensure that its employees and those of Subcontractors comply with any direction given by Worksite Protection Personnel.
5.7 Arrangements during Track Possessions

The Contractor may not have exclusive access to any Rail Tracks or areas within the vicinity of Rail Tracks during a Track Possession. The Contractor must coordinate the Contractor’s Activities with those sharing the Track Possession, including parties involved in the operation or maintenance of the rail system and Other Contractors, in accordance with the Contract and the requirements of the RailCorp RailSafe Network Rules and RailCorp RailSafe Network Procedures, TfNSW Rail Safe Working Standard (4TP-ST-014) and TfNSW Rail Safeworking Arrangements Procedure (4TP-PR-106).

This includes where required, the Contractor allowing for RailCorp’s contractors and Other Contractors to pass through the worksite(s) during the Track Possessions. The extent of RailCorp’s 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 Co-ordination Meeting referred to in TSR Prelude Clause 5.4.

The Contractor must ensure that all persons invited or brought onto the Site by the 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.

Prior to the end of the Track Possession, an appropriately qualified inspector holding the appropriate competencies must approve Completion of the relevant Works and sign off on RailCorp Certificate of Practical Completion/Certification (W42F01).

Any defects listed on W42F01 must be rectified by the Contractor to the satisfaction of the Principal within 5 Business Days of the issue of the relevant W42F01.

The Contractor, must immediately comply with any instructions by the Principal’s Representative to vary the program described in Clause 5.85.8(b), or curtail the Contractor’s Activities if the Principal’s Representative considers that continuing with intended Contractor’s Activities will result in a delay to returning the Track Possession and/or delay to trains.

The Principal may alter, cancel or curtail any Track Possession at any time.

5.8 Planning and Managing Track Possessions

To ensure that Track Possessions are managed effectively and safely, the Contractor must:

(a) prepare, maintain and update policies and procedures for planning and managing Track Possession work in accordance with the RailCorp Possession Manual; and

(b) prepare and submit to the Principal’s Representative for review in accordance with the RailCorp Possession Manual, six (6) 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 RailCorp Possession Manual; and

   (ii) a program including:

      A. the elements of the Contractor’s Activities to be completed prior to the Track Possession;

      B. an hour by hour breakdown of the elements of the Contractor’s Activities 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 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 RailCorp 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 RailCorp operational and maintenance activities; and

G. progress/program review meetings scheduled during the Track Possession as requested by the Principal's Representative and/or RailCorp.

5.9 Certification of Work in Track Possessions

Before handover of an area at the end of any Track Possession the Contractor must provide to the Principal's Representative and, if required by the Principal's Representative, to RailCorp the following:

(a) for any form of civil or structural works that will support operating Rail Track, written certification by the Contractor's designers (including design Subcontractors) that the relevant works are safely able to support the operating rail infrastructure;

(b) for any adjustments to or interruptions of service to signalling, track, overhead wiring or high voltage infrastructure, written certification from the Contractor's designers (including design Subcontractors) that such infrastructure is suitable for operations and complies with the approved design;

(c) for any adjustments to or interruptions of service to signalling, overhead wiring or high voltage infrastructure, written certification from a RailCorp representative that such infrastructure is suitable for operations; and

(d) all infrastructure certification required by RailCorp, including the RailCorp Infrastructure Handover and Completion Certification (W42F05) and RailCorp Infrastructure Booking Authority (NRF 003).
6 PROPERTY MANAGEMENT

6.1 General Property Obligations

The Contractor is responsible for managing the Site, minimising the impact of the Contractor's Activities on adjoining owners during any investigations, early/enabling works, construction and rectification activities after the Date of Completion.

6.2 Design Requirements

Where the design of any part of the Works is part of the Contractor's Activities, the Contractor must comply with the property requirements appropriate to design processes set out in TSR T1.

6.3 Pre-construction Land Surveys

The Contractor must verify survey control for the Contractor's Activities and must:

(a) avoid, where reasonably possible, disturbance of existing survey marks and must re-establish any such marks disturbed or affected by the Contractor's Activities;

(b) carry out boundary and engineering surveys in accordance with the Surveying Act 2002 (NSW) and Surveying and Spatial Information Regulation 2006 (NSW);

(c) prior to commencing any activity which could affect existing infrastructure (including roads, railways, utility services and buildings), undertake a survey to identify and record the location of the construction site boundary in relation to existing infrastructure; and

(d) provide the Principal with reports on the location of the construction site boundary in relation to existing infrastructure prior to the Contractor commencing the relevant Contractor's Activity.

6.4 Post-construction Land Surveys

As a condition precedent to Completion of each Portion, the Contractor must issue a Survey Plan and a Survey Certificate for each Portion to the Principal's Representative in accordance with the Contract.

6.5 Property Management Plan

The Contractor must develop, maintain and implement a "Property Management Plan" or "PMP" which describes the procedures and processes the Contractor will implement to manage property issues.

As a minimum, the content of the Property Management Plan should address the headings listed in Table 1 below.

In addressing the requirements to prepare a Property Management Plan and in particular the Property Damage Management section, it is not acceptable for the Contractor to simply restate an obligation under TSR Prelude and provide an undertaking that the issue will be addressed. The Contractor must address each of the requirements with a high level of detail so that a reasonable person would understand how the Contractor intends to meet the Principal's requirements. In respect of those minimum "Sections" detailed in Table 1 below, the Contractor must explain in detail how it will:
(a) identify, manage and record risks/contingent liabilities, stakeholders, impacted adjoining land and assets;
(b) manage and mitigate those risks directly related to the potential damage of property as a consequence of the Works;
(c) identify actual damage, how it occurred and how that damage will be rectified;
(d) identify disputes in relation to damage and how each dispute will be processed, managed and resolved; and
(e) manage project relations with all adjoining owners and the Principal.

None of the requirements expressed in (a) to (e) above derogate from any other stated obligations or requirements under Clause 6 of TSR Prelude. The Contractor must comply with all stated requirements of the Property Management Plan.

Table 1: Minimum Property Management Plan content structure

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Definitions</td>
</tr>
<tr>
<td>2</td>
<td>Project Description</td>
</tr>
<tr>
<td>3</td>
<td>Objective</td>
</tr>
<tr>
<td>4</td>
<td>Key Resources and Management</td>
</tr>
<tr>
<td>5</td>
<td>Requirements</td>
</tr>
<tr>
<td>6</td>
<td>Property Condition Surveys</td>
</tr>
<tr>
<td>6.1</td>
<td>Pre-construction Condition Surveys</td>
</tr>
<tr>
<td>6.2</td>
<td>Refusal or Lack of Response for Condition Surveys</td>
</tr>
<tr>
<td>6.3</td>
<td>Compliance Review of Condition Surveys</td>
</tr>
<tr>
<td>6.4</td>
<td>Distribution of Property Condition Surveys</td>
</tr>
<tr>
<td>6.5</td>
<td>Condition Survey Register</td>
</tr>
<tr>
<td>6.6</td>
<td>Post-construction Condition Surveys</td>
</tr>
<tr>
<td>7</td>
<td>Property Damage Management</td>
</tr>
<tr>
<td>7.1</td>
<td>General Overview</td>
</tr>
<tr>
<td>7.2</td>
<td>Notification Process</td>
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<tr>
<td>7.3</td>
<td>Assessment Process</td>
</tr>
<tr>
<td>7.4</td>
<td>Damage Rectification</td>
</tr>
<tr>
<td>7.5</td>
<td>Unresolved Claims</td>
</tr>
<tr>
<td>7.6</td>
<td>The role of an independent Property Damage Assessor (PDA)</td>
</tr>
<tr>
<td>8</td>
<td>Ongoing Property Monitoring</td>
</tr>
<tr>
<td>8.1</td>
<td>Monitoring Frequency</td>
</tr>
<tr>
<td>8.2</td>
<td>Monitoring of Track and Structures</td>
</tr>
<tr>
<td>8.3</td>
<td>Distribution of Monitoring Data</td>
</tr>
<tr>
<td>9</td>
<td>Heritage</td>
</tr>
<tr>
<td>10</td>
<td>Communications</td>
</tr>
<tr>
<td>10.1</td>
<td>Communication Management Systems</td>
</tr>
<tr>
<td>10.2</td>
<td>Enquiries and Complaints</td>
</tr>
<tr>
<td>10.3</td>
<td>Evaluation and reporting</td>
</tr>
<tr>
<td>11</td>
<td>Self Verification Checklist</td>
</tr>
</tbody>
</table>
The Contractor must refer to TSR C1 for acceptable letter templates relating to accessing private property and requesting permission to conduct property Condition Surveys.

6.5.1 Property Damage Management

The Property Damage Management section of the PMP must detail the procedures and processes the Contractor will implement to minimise, detect, assess, mitigate and rectify damage to property caused by or as a result of the Contractor's Activities. This will require the Contractor to undertake a risk assessment prior to any Site works in order to identify property and items that could be affected or damaged by the Contractor's Activities. Factors to consider when determining an asset's susceptibility to damage must include, but are not limited to, maximum levels of movement or angular distortion, or strain, or settlement or deflection or groundwater draw down.

The Property Damage Management section of the PMP must cover all property (including assets above and below ground) on or adjacent to the Site and in the sphere of influence of the Contractor's Activities including, but not limited to, premises, access roads and their surroundings, buildings, structures, utilities and services, rail assets and systems (including all RailCorp property and rolling stock owned by others), roadways, footpaths, street furniture and gutters.

The plan must set out the following:

(a) the damage mechanisms, including trials of construction procedures and methods to help assess the risk of property damage;

(b) noise, vibration and settlement limits that will prevent the damage of existing property and items by the Contractor's Activities. The Contractor must transfer these criteria into method statements and inspection and test plans to ensure that any Contractor's Activities are within the above limits and minimise damage risks. The plan must include procedures for the review of, and change to, construction methodologies to minimise or prevent damage;

(c) a list of properties with the potential to be detrimentally or negatively affected by the Contractor's Activities; and

(d) a list of the properties and assets which will be subject to a Condition Survey by the Contractor. The Principal's Representative may direct the Contractor to include additional properties and assets if they have the potential to be damaged as part of the Contractor's Activities and a Principal nominated person may attend the undertaking of Condition Surveys.
6.5.2 Pre-construction property Condition Surveys

The Contractor must carry out pre-construction property Condition Surveys to record the existing condition of adjoining land and properties prior to construction and to assess the susceptibility of critical Services or structures or buildings to damage or unacceptable changes or alterations as a result of the Contractor's Activities.

The Property Condition Survey section of the PMP must describe the Contractor's proposed approach to performing Condition Surveys. The plan must as a minimum:

(a) set out the minimum standards of pre-construction and post-construction Condition Surveys;
(b) include a procedure for the use of an independent third party to ensure compliance against the minimum standard of Condition Surveys; and
(c) describe how the Contractor will minimise disruption to property owners and occupiers by completing single Condition Surveys in agreement with Other Contractors and Subcontractors.

In addition to the requirements set out in the Contract and the TfNSW Standard Requirements, the Contractor must comply with all requirements for Condition Surveys and ongoing monitoring set out in third-party agreements.

6.5.3 Condition Surveys of buildings

The Contractor must ensure that the processes and procedures for performing all Conditions Surveys on buildings are based on industry best practices. Examples of acceptable standards for Condition Surveys of buildings include:

(a) Sections 4 and 5 of the Royal Institute of Chartered Surveyors (RICS) Guidance Note 63/2010 Building Surveys and technical due diligence; and
(b) AS:4349 - Inspection of buildings - general requirements, and with specific regard to the heritage elements within the Site and Remote Sites.

The Contractor's reports on Condition Surveys of buildings must as a minimum record the following features:

(c) Major features of the buildings and developments including location, type, construction, age and present condition, including any defects or damage;
(d) type of foundations including columns, walls and retaining structures;
(e) an assessment of the susceptibility of the building to further movement or stress;
(f) an assessment of the effectiveness of water-proofing systems in basements to the anticipated movements caused by the Contractor's Activities; and
(g) an assessment of the susceptibility of the building to changes in water levels resulting from the Contractor's Activities.

Existing levels of aesthetic damage are to be recorded in accordance with the assessment requirements of "Building Damage Classification", by Burland et al., 1977 and Boscardin and Cording, 1989 or another similar or equivalent assessment method to the satisfaction of the Principal's Representative.
6.5.4 Construction Phase Monitoring

The Contractor must implement a monitoring and inspection regime for properties with the potential to be detrimentally or negatively affected during construction by the Contractor's Activities. The monitoring and inspection regime must address the requirements of the Contract, the Planning Approvals and third-party, property and Authority agreements. The Contractor must also comply with the project-specific requirements for the construction phase monitoring set out in TSR Prelude Annexure A and include these requirements in the Property Management Plan.

For activities in or adjacent to the Rail Corridor, the Contractor must implement specific monitoring regimes and emergency and response procedures for all Contractor's Activities close to or under, and likely to affect, live rail track in accordance with RailCorp monitoring standards.

The PMP must contain a clear statement that all Contractor's Activities causing any damage will cease until the construction methodology is reviewed and damage rectification agreed with the property owner and the Principal's Representative.

6.5.5 Post-construction property Condition Surveys

Within one month of Completion and again at times specified in TSR Prelude Annexure A, the Contractor must perform a post-construction Condition Survey on each property previously subject to a pre-construction property Condition Survey and construction phase monitoring.

The Contractor must ensure that post-construction property Condition Surveys are performed to the same standards as the pre-construction property Condition Surveys. The Contractor must ensure that the same surveyor performs both the pre and post construction Condition Surveys on a particular property.

The Contractor must submit all post-construction property Condition Survey reports to the Principal's Representative within 10 Business Days of the survey. Each report must contain a certificate from the engineer or surveyor who performed the survey certifying that the survey has been completed and is an accurate assessment of the property's condition.

The post-construction property Condition Survey report(s) must include a determination of the cause of any monitored change or damage identified (if any) since the pre-construction or previous construction survey(s) and the Contractor's proposed remedial works or activities. If any damage is found to have been caused by the Contractor's Activities, the Contractor must:

(a) provide the Principal's Representative with a proposal setting-out the remedial action required; and
(b) obtain the property owner's acceptance, in a form agreed to by TfNSW, of the compensation, repair or reinstatement work, and release from future claims and actions.

If no damage is found to have been caused by the Contractor's Activities, the Contractor must:

(c) write to the property owner and provide a copy of both reports for the property owner's records; and
(d) provide the Principal's Representative with a copy of all records for its future reference.

6.5.6 Communication and claims management

The Property Management Plan must set out the Contractor's procedures for communicating with property owners and for managing property damage claims including:
(a) provision of routine and regular advice to property owners and occupiers, about the Contractor’s Activities in close proximity and with the potential to detrimentally or negatively affect their property, in line with the Community Liaison Plan requirements set out in TSR C1;
(b) receipt and recording of reports of and/or claims relating to damage thought to be associated with the Contractor’s Activities, the Temporary Works and/or the Works, in line with the Community Liaison Plan requirements set out in TSR C1; and
(c) processes and procedures for the management and resolution of any property damage claims.

The Contractor must also provide an update on the status of claims in each monthly report (see TSR Prelude Clause 3).

6.5.7 Submission

The Property Management Plan must be submitted to the Principal’s Representative for review in accordance with the requirements of the Contract and TSR Prelude Annexure A.

6.6 Property Requirements as Part of Site Inductions

The Contractor must ensure its employees and the employees of Subcontractors engaged in carrying out the Contractor’s Activities on the Site are inducted and trained in any property requirements of the Contract to achieve a level of awareness and competence appropriate to their assigned activities.

The property requirements of the induction must include informing the relevant persons of Site boundaries, parking and vehicle delivery restrictions, limitation of access rights and access procedures to minimise all potential property impacts including property damage, disturbance and any other property matters.

6.7 Property Compliance Register

Without limiting the Contract, the Contractor acknowledges and agrees that during occupation of the Site, Remote Sites and Extra Land it must comply with all Laws applicable to the Site, Remote Sites and Extra Land, and any relevant Third Party Agreements. To assist the Contractor, the Principal has developed the non-exhaustive TfNSW Property Compliance Register (2TP-ST-175) which lists the applicable legislation. A copy of this document may be supplied to the Contractor upon request.

6.8 Control of Property Records

The Contractor must comply with the requirements of TSR Q1 for the control of all property records.
## Annexure A - Additional Project Requirements

### A1 Management Review

<table>
<thead>
<tr>
<th>Applies?</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Mentioned in TSR Prelude Clause 2.4.2</td>
</tr>
</tbody>
</table>

Management review of the CMP (including all sub Management Plans) every 6 months. (Note: “Yes” applies if “Applies?” is left blank)

### A2 Principal’s electronic document management tool

<table>
<thead>
<tr>
<th>Applies?</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Mentioned in TSR Prelude Clause 2.4.3.2</td>
</tr>
</tbody>
</table>

Principal’s electronic document management tool to be used for this Contract. (Note: “Yes” applies if “Applies?” is left blank)

### A3 Worksite Protection Personnel

<table>
<thead>
<tr>
<th>Applies?</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractor</td>
<td>Mentioned in TSR Prelude Clause 5.4</td>
</tr>
</tbody>
</table>

The nominated party will provide Worksite Protection Personnel.

### A4 Traffic Control Plan

<table>
<thead>
<tr>
<th>Applies?</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Mentioned in TSR Prelude Clause C19</td>
</tr>
</tbody>
</table>

The Contractor must prepare a detailed Traffic Control Plan generally in accordance with the RTA guideline Traffic Control at Worksites 3rd ed (September 2003) (Note: “Yes” applies if “Applies?” is left blank)
### A5 Timing for the initial submission of management plans

<table>
<thead>
<tr>
<th>Management Plan</th>
<th>Required for the Contractor’s Activities</th>
<th>Timing for Submission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset Management Information Delivery Plan</td>
<td>✓</td>
<td>T3</td>
</tr>
<tr>
<td>Commissioning Management Plan</td>
<td>✓</td>
<td>T5</td>
</tr>
<tr>
<td>Community Liaison Plan</td>
<td>✓</td>
<td>T3</td>
</tr>
<tr>
<td>Configuration Management Plan</td>
<td>✓</td>
<td>T3</td>
</tr>
<tr>
<td>Construction and Site Management Plan, including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Commuter and Passenger Management Plan;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Contractor Program;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Property Damage Management Plan;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Traffic Management Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction Environmental Management Plan</td>
<td>✓</td>
<td>T3</td>
</tr>
<tr>
<td>Contract Management Plan (framework)</td>
<td></td>
<td>Not Required</td>
</tr>
<tr>
<td>Contractor’s Commissioning Activity Plan</td>
<td>✓</td>
<td>T5</td>
</tr>
<tr>
<td>Emergency and Crisis Management Plan</td>
<td>✓</td>
<td>T3</td>
</tr>
<tr>
<td>Design Management Plan</td>
<td></td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Human Resources Management Plan including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Project Induction and Training Management Plan</td>
<td>✓</td>
<td>T3</td>
</tr>
<tr>
<td>-</td>
<td></td>
<td>T3</td>
</tr>
<tr>
<td>Industrial Relations Management Plan</td>
<td>✓</td>
<td>T3</td>
</tr>
<tr>
<td>Interface Management Plan</td>
<td>✓</td>
<td>T3</td>
</tr>
<tr>
<td>Project Safety Management Plan</td>
<td>✓</td>
<td>T3</td>
</tr>
<tr>
<td>Property Damage Management Plan</td>
<td>✓</td>
<td>T3</td>
</tr>
<tr>
<td>Quality Management Plan</td>
<td>✓</td>
<td>T3</td>
</tr>
<tr>
<td>Risk Management Plan</td>
<td>✓</td>
<td>T3</td>
</tr>
<tr>
<td>Safety Assurance Plan</td>
<td></td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Worksite Protection Plan</td>
<td>✓</td>
<td>T6</td>
</tr>
<tr>
<td>Defect Management Plan</td>
<td>✓</td>
<td>T3</td>
</tr>
</tbody>
</table>
T1  15 Business Days after the date of the Contract.
T2  15 Business Days prior to the commencement of design. If the Works do not involve any design activities prior to the commencement of construction then these plans are to be submitted under T3 timing requirements.
T3  15 Business Days prior to the commencement of Site mobilisation.
T4  14 days prior to the commencement of construction or investigations.
T5  9 months prior to the planned commencement of the first commissioning event, or 30 Business Days following the date of the Contract if the Date for Completion is less than or equal to 9 months after the date of the Contract.
T6  14 days prior to the commencement of construction in the Rail Corridor.

A6  Construction Phase Monitoring Requirements (mentioned in Clause 6.5.4)

No project specific requirements.
ANNEXURE B – List of Reference Documents
List of Reference Documents

AS1742.3:2009 Part 3 - Spoil Control Devices for Works on Roads
AS4292 Railway Safety Management Standard
NSW Government Aboriginal Participation in Construction Guidelines
NSW Government Industrial Relations Management Guidelines
NSW Government Training Management Guidelines
Protection of the Environment Administration Act 1991 (NSW)
Protection of the Environment Operations Act 1997 (NSW)
Rail Safety (Drug and Alcohol Testing) Regulation 2008 (NSW)
Rail Safety (General) Regulation 2008 (NSW)
Rail Safety Act 2008 (NSW)
RailCorp A guide to working in and around the rail corridor
www.railcorp.info/building_near_the_railway/guidelines
RailCorp Certificate of Practical Completion/Certification (W42F01)
RailCorp Infrastructure Booking Authority (NRF 003)
RailCorp Infrastructure Handover and Completion Certification (W42F05)
RailCorp Managing Project Interfaces (IMD-PR-032)
RailCorp Project Safety Agreement (PSA) (SMS-06-FM-1362)
RailCorp RailSafe Network Procedures
RailCorp RailSafe Network Rules
RICS Guidance Note 63/2010 Building Surveys and technical due diligence (Sections 4 and 5)
Roads Act 1993 (NSW)
TCA Risk Management Standard (CS-ST-018)
TfNSW Compliance Audit Standard (9TP-ST-020), Clauses 11, 12 and 13
TfNSW Monthly Safety Statistics and Incident Summary (90-FI-096)
TfNSW Property Compliance Register (2TP-ST-175)
TfNSW Rail Safe Working Standard (4TP-ST-014)
TfNSW Rail Safe Working Arrangements Procedure (4TP-PR-106)
TfNSW Scenario - Defect Management (4TP-PR-158)
Requirements for Discipline-Specific Management Plans

In addition to the general requirements for discipline-specific management plans described in TSR Prelude Clause 2.3, the Contractor must comply with the following standard requirements.

C1 Asset Management Information Delivery Plan

The Contractor must prepare, implement and maintain an Asset Management Information (AMI) Delivery Plan in accordance with TSR A1.

C2 Commissioning Management Plan

The Contractor must prepare, implement and maintain a Commissioning Management Plan in accordance with TSR C1.

C3 Community Liaison Plan

The Contractor must prepare, implement and maintain a Community Liaison Plan in accordance with TSR C1.

C4 Commuter and Passenger Management Plan (to be addressed in the Construction and Site Management Plan)

The Contractor must develop a "Commuter and Passenger Management Plan" that demonstrates how public movements will be accommodated during the various stages of the Contractor's Activities. The Commuter and Passenger Management Plan must include (without limitation):

(a) drawings showing, as a minimum, the layout of public areas, including facilities provided for rail staff and patrons and systems drawings at each stage of the Works;
(b) drawings showing proposed arrangement of the station clearly showing the position of hoarding and platform interchange provision. Clearances and free area of platforms to be clearly documented. Frui level of service diagrams shall accompany the drawings and they shall indicate the proposed level of service for the proposed arrangement;
(c) drawings showing proposed arrangement of signage covering existing signage and new temporary signage including location, size and wording of temporary and permanent way finding signage. Proposed modification to any existing signage must be clearly indicated;
(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) controlled Site access points;
(g) delineation lines and material to be used for delineation;
(h) access point from public modes of transport and general ingress and egress points; and
(i) identification of accommodation of level changes via ramps, stairs, and other means.

The Contractor must install signage and delineation as shown on the Commuter and Passenger Management Plan to clearly communicate to the public and others to safely and easily navigate around or through the Site. The Principal's Representative may direct the Contractor to include additional or alternative signage and delineation than that specified in the Commuter and Passenger Management Plan.
C5  Configuration Management Plan

The Contractor must prepare, implement and maintain a “Configuration Management Plan” which sets out procedures necessary to fulfil all requirements of RailCorp’s configuration management process further to TSR Prelude Clause 5.2.

C6  Construction and Site Management Plan

The Contractor must prepare, implement and maintain a “Construction and Site Management Plan” in accordance with the Contract including TSR Prelude. The Construction and Site Management Plan must describe the procedures and processes that the Contractor will undertake to plan and execute the construction of the Works. The Construction and Site Management Plan must:

(a) detail how the Contractor will comply with its obligations under the Contract 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 TfNSW, Other Contractors and any other person nominated by TfNSW;

(b) determine effective construction staging that will ensure the current railway operations and the associated transport facilities’ operational requirements are maintained and impact to these operations minimised during construction;

(c) describe procedures for the preparation and implementation of plans and work method statements before the start of related construction work;

(d) describe procedures for the management of Subcontractors and their plans and work method statements;

(e) describe the processes to ensure the compatibility of any necessary Temporary Works with each other and with the Works;

(f) where the works include tunnelling, detail specific measures in relation to construction practices to maintain safety during tunnelling works and to demonstrate compliance with Coroner’s recommendations coming out of the inquiry into the tunnelling fatality that occurred during the construction of the Cross City Tunnel project in Sydney;

(g) describe spoil management procedures, including identification of spoil disposal/reuse/recycling/reprocessing locations;

(h) include a schedule of all the inspection and test plans to be prepared and implemented for the acceptance of the Works, including those to be provided by Subcontractors, covering all plant, equipment and materials procurement, and inspections and tests to be conducted on and off the Site;

(i) identify all test facilities and tests to be used to ensure compliance with the technical requirements of the Design Documentation and the Contract;

(j) identify all the laboratories and other facilities to be used for quality control and compliance tests;

(k) describe procedures to ensure the prompt identification and recording of Defects, including process and other non-conformances, and system deficiencies, and for their rectification and the verification of the results;
(l) describe procedures to demobilise the Contractor's Activities and the Works, including demobilisation of personnel, plant and equipment and closeout of stakeholder communications;

(m) address the Contractor’s management of time related facets of the Contractor’s Activities, including the production and update of the Contractor Program;

(n) address the management of interfaces with all Authorities and Other Contractors including:
   (i) communication channels, processes for ensuring efficient information flow, communication protocols and meeting schedules;
   (ii) sequencing and timing of activities with the interfaces, including special programs;
   (iii) programming of works to be conducted during Track Possessions in conjunction with RailCorp as set out in Clause 5 of TSR Prelude;
   (iv) roles and responsibilities of personnel and organisations for key aspects of the interface;
   (v) technical and program requirements;
   (vi) work implications and applicable construction methodologies; and
   (vii) review of processes and timetables; and

(o) outline an incident reporting procedure with reference to the Contract, TSR S1, TSR E1 and TSR C1.

The Construction and Site Management Plan is to include the following discipline-specific management plans as set out in this TSR Prelude Annexure C:

(p) Commuter and Passenger Management Plan;

(q) Contractor Program;

(r) Property Management Plan; and

(s) Traffic Management Plan.

C7 Contractor Program (to be addressed in the Construction and Site Management Plan)

The Contractor must plan, establish, develop, implement and maintain the program using professional, qualified and suitably experienced practitioners. The Contractor must submit the Contractor Program (and any other programs) to the Principal's Representative for approval in accordance with the requirements set out in the Contract.

The Contractor is required to submit the Contractor Program to the Principal's Representative, in Primavera P6 by the date specified in TSR Prelude Annexure A and at the other times required by the Contract. The Program must include a summary program no longer than one (1) A3 sheet.

The Contractor must upload and develop the Contractor Program in Primavera P6 on TfNSW's network. The Contractor will be given access to the TfNSW planning environment via Citrix at no extra cost to the Contractor.
Without limiting the General Conditions, the Contractor must also provide the Contractor Program in hard copy form to the Principal's Representative. The hardcopy format of the Contractor Program and all other programs and schedules must be provided to the Principal's Representative as A3 sized paper prints in colour.

Without limiting the General Conditions, the Contractor Program and other programs must comply with the following requirements:

(a) be in a time scaled network form corresponding with the time to the Date of Completion, which clearly indicates which events control Completion;

(b) accurately represent the Contractor's intended method for carrying out the Contractor's Activities and intended approach to performing the work in the time to meet the Date for Completion;

(c) with the exception of Alliance contracts, group the Contractor's Activities and milestones in a work breakdown structure (WBS) which at the highest level is identical to the cost breakdown structure (CBS) presented in any schedule of relevant Contract Sum rates and prices in the Contract;

(d) indicate the lead times for supply of information, selection of subcontractors and suppliers, approvals, supply of equipment by the Principal, its agents or persons for whom the Contractor is not responsible. Each period must be represented separately from the site activity for the relevant items;

(e) be capable of showing, if required, all relevant information in respect of each activity, including (without limitation):

(i) the identification, description, duration and any early or late start times;

(ii) calendar, time or resource analysis dates;

(iii) floats, sorts and /or cost codes;

(iv) whether the activity is likely or not likely to affect the Contractor's ability to reach Completion by the Date for Completion;

(v) program variance from baseline; and

(vi) testing dates and certification activities required by authorities to coordinate Completion;

(f) provide start and finish dates for all elements of the Contractor's Activities (including design, procurement and construction activities), milestones, track possessions, external dependencies, other significant events and contractual completion dates. Generally, scheduled activities (excluding procurement duration) should be no longer than ten (10) Business Days in duration. If the duration of any activity exceeds ten (10) Business Days that activity, where applicable, must be broken down into sub-activities, each of which is to be separately identified in the Contractor Program;

(g) code activities, where applicable, to facilitate easy retrieval of aspects of the project such as element, location, equipment, trade etc;

(h) be detailed enough so that the duration of each activity has one time estimate expressed in working days or such other time interval as required by the Principal's Representative;
(i) show activities for Site mobilisation and establishment and demobilisation;
(j) identify the access requirements, including Track Possessions and any service outages;
(k) reflect scheduled and actual physical progress of the Works, and be consistent with all constraints on access, performance and co-ordination;
(l) show the logical relationship between activities and events shown in the Contractor Program, identify time leads and lags, resource and other constraints and the sequence of activities which constitute the critical path or critical paths;
(m) show total float which has been calculated for activities and milestones;
(n) show the dates when the Contractor will require information, documents, materials or instructions from the Principal's Representative and the dates when the Contractor will provide information or documents to the Principal's Representative. These dates are to be consistent with dates which the Principal could reasonably have anticipated at the date of the Contract;
(o) show review periods in accordance with the requirements set out in the Contract where the Principal's Representative may review, comment and where required approve information and documents submitted by the Contractor;
(p) show the procurement and appointment of Subcontractors. Subcontractor activities must be integrated into the Contractor Program;
(q) show major procurement activities, off-site activity and delivery dates of key Construction Plant and materials to Site;
(r) show commencement of substantial construction activities;
(s) show commissioning and hand-over activities, including the time allowed for testing and commissioning of major items. These activities should reflect the ten stages of commissioning as outlined in TSR 01;
(t) show significant activity dependencies;
(u) clearly identify the critical path activities and milestones;
(v) show allowance for weather and other event contingencies;
(w) show a contract calendar identifying the working and non-working days for the Contractor's Activities;
(x) be in such form and include such detail as the Principal's Representative reasonably requires, and be accurate, comprehensive and complete in all respects; and
(y) include units of measure, quantity and production rates for all works such as bulk earthworks, capping, structures including retaining structures, drainage, track etc.

The Contractor must ensure that within the Contractor Program, and its subsequent updates:
(z) The total float is not negative or excessive;
(aa) the use of constraint is kept to a minimum;
(bb) the critical path is clearly identified;
(cc) the lags are not excessive;
(dd) that successors and predecessor to all activities, excluding the Commencement Date and Completion, are provided;

(ee) project calendars are up to date and reflect changes to the available working periods; and

(ff) the slippage from the baseline programme is shown on periodic updates.

The Contractor must actively manage progress, anticipating and responding to events to stay on program and achieve the Contract requirements.

C8 Contractor's Commissioning Activity Plan

The Contractor must prepare, implement and maintain a Commissioning Activity Plan in accordance with TSR Q1.

C9 Design Management Plan

The Contractor must prepare, implement and maintain a Design Management Plan in accordance with TSR T1 and TSR Q1.

C10 Environmental Management Plan

The Contractor must prepare, implement and maintain a Construction Environmental Management Plan in accordance with TSR E1.

C11 Human Resources Management Plan

The Contractor must prepare, implement and maintain a "Human Resources Management Plan" which describes the Contractor's strategy and procedures for effective utilisation of human resources on the Project, including:

(a) the preparation of a resources program for the Contractor's team;

(b) the allocation of suitable trained and experienced competent personnel to plan, perform and verify work including, but not limited to, the requirements set out in TSR S1, TSR E1 and TSR T1;

(c) the management of staff, Subcontractors and suppliers;

(d) compliance with obligations in relation to all Laws, including:

(i) the NSW Industrial Relations Act 1996;

(ii) equal employment opportunity;

(iii) the NSW Government Aboriginal Participation in Construction Guidelines January (2007), Nominated Category 3;

(iv) the protection of employee records under the NSW Privacy and Personal Information Protection Act 1998; and

(v) Rail Safety (Drug and Alcohol Testing) Regulation 2003;

(e) the preparation of a "Project Induction and Training Management Plan" which:

(i) complies with the NSW Government Training Management Guidelines February (2009), Nominated Category 1; and

(ii) includes procedures for the induction and training of all on and off site personnel covering as a minimum:
Annexure C – Requirements for Discipline-Specific Management Plans

A. the project’s quality management system and work processes;
B. WHS;
C. community relations;
D. environmental and heritage management;
E. emergency management and incident reporting;
F. property requirements;
G. rail safety and RailCorp specific site inductions, if the Contractor’s Activities involves work in or adjacent to the Rail Corridor and the rail environment; and
H. in the case of an Alliance contract, business ethics and fraud and corruption prevention; and

(iii) describes processes for identifying competencies required of personnel, which personnel will be trained, when they will be trained, and how they will be trained. Furthermore, the Contractor must provide to the Principal’s Representative a project-specific training matrix;

(f) procedures for performance management of personnel; and

(g) in the case of an Alliance contract, allocation of responsibility between the Participants for the recruitment of personnel in accordance with each Participant’s conditions of employment.

The Contractor must ensure that all on site and off site personnel engaged in the Contractor’s Activities (including Subcontractors) have undergone all necessary inductions including the requirements of TSR Prelude, TSR S1, TSR E1 and TSR C1. Any person who has not undergone all necessary inductions must not work on the Site.

C12 Industrial Relations Management Plan

The Contractor must prepare, implement and maintain an Industrial Relations Management Plan in accordance with the NSW Government Industrial Relations Management Guidelines.

C13 Interface Management Plan

The Contractor must prepare, implement and maintain an Interface Management Plan in accordance with TSR T1.

C14 Project Safety Management Plan

The Contractor must prepare, implement and maintain a Project Safety Management Plan in accordance with TSR S1.

Note that a separate Rail Safety Management Plan is not specifically required. The Contractor may show compliance with the requirements of the Interface Agreement, the Rail Safety Act 2008 (NSW), Rail Safety (General) Regulation 2008 (NSW), Rail Safety (Drug and Alcohol Testing) Regulation 2008 (NSW), AS4292 Railway Safety Management Standard, and TSR S1 within the Project Safety Management Plan.

C15 Quality Management Plan
The Contractor must prepare, implement and maintain a Quality Management Plan in accordance with TSR Q1.

C16  Risk Management Plan

The Contractor must prepare, implement and maintain a "Risk Management Plan" that meets the requirements of AS/NZS ISO 31000:2009 (Risk management – Principles and guidelines) and addresses the management of risks applicable to the undertaking of the Contractor's Activities.

The Risk Management Plan must align with the requirements and guidance provided by TCA Risk Management Standard (CS-ST-018). The Contractor must adopt the Principal's risk criteria unless the Principal's Representative agrees to alternative risk criteria that are appropriate for the Contractor's Activities.

The Risk Management Plan must provide details of how a risk register will be used as a tool to manage risks related to the delivery of the Contractor's Activities. The risk register should identify, document and rank all risks related to the delivery of the Contractor's Activities and, as a minimum, must cover the following risk areas:

(a)  Cost control;
(b)  construction program and key timing constraints (such as booked Track Possessions and utility outages);
(c)  construction access;
(d)  buildability;
(e)  interfaces;
(f)  design, technical, quality, environmental and safety issues in delivery;
(g)  asset operability, durability, reliability, availability and maintenance;
(h)  safety in design, construction, operation and maintenance;
(i)  integration and operations of existing assets and services;
(j)  adjoining properties;
(k)  approvals;
(l)  community issues and interest (including media, commuters, residents and councils); and
(m)  co-operation and interface with works undertaken outside this Contract by other parties (including Other Contractors) or Authorities.

The Risk Management Plan must also:

(n)  include a template of the Contractor's proposed risk register;
(o)  include a process for the management of any risks that are identified by the Principal and the inclusion of any such risks in the Contractor's risk register;
(p)  identify key project timeframes and milestones where the Contractor will undertake risk workshops to identify and/or review risks and update the risk register;
(q)  include a process for the allocation of ownership of each risk and the responsibilities and accountabilities for the control and mitigation of each risk;
The Risk Management Plan must acknowledge that the Contractor will provide details of the implementation, operation and effectiveness of the Contractor's Risk Management Plan in the Contractor's monthly report in accordance with TSR Prelude Clause 3.

Upon request by the Principal's Representative, the Contractor must provide the Principal's Representative with access to the Contractor's full risk register. Where the Contractor's risk register is accessible electronically, and the Principal's Representative agrees, the Contractor may provide the Principal with access to project relevant parts of its electronic system in lieu of hard copies. At any time during the Contract, the Principal's Representative may request that the Contractor submit hard or electronic copies of the Contractor's risk register.

C17 Safety Assurance Plan

The Contractor must prepare, implement and maintain a Safety Assurance Plan in accordance with TSR T1.

C18 Traffic Management Plan (to be addressed in the Construction and Site Management Plan)

The Contractor must prepare, implement and maintain a "Traffic Management Plan" that addresses the Contractor's obligations and responsibilities relating to the management of traffic. The Traffic Management Plan must describe the Contractor's approach to satisfying the requirements in respect of:

(a) The Site Traffic Management Plan in TSR S1;
(b) Authority Approvals, including RTA/RMS, NSW Police, State Emergency and local councils;
(c) RTA Traffic Control at Worksite Manual;
(d) AS 1742.3-2009 Part 3 - Spoil Control Devices for Works on Roads;
(e) Roads Act 1993 (NSW) and all other Laws; and
(f) certificates, licences, consents, permits and approvals, including in respect of working hours.

The Traffic Management Plan must recognise, be consistent with and comply with the traffic configuration of the local road network as it exists at various stages during construction of the Works. The Traffic Management Plan must also describe as a minimum:

(g) detailed 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 construction traffic within the Site and outside the Site on the adjacent public road system;

(h) 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;
(i) safety of commuters, pedestrians, cyclists and site personnel;
(ii) changes to traffic usage patterns (average, low and peak flows as well as special events or traffic embargoes);
(k) programmed commencement and Completion dates;
(l) management of maintenance requirements, emergencies and incidents;
(m) requirements for occupation of, or access through, private properties in accordance with the requirements set out in TSR C1;
(n) coordination of traffic management procedures and plans with the Principal's Representative, Other Contractors and other parties;
(o) procedures for obtaining relevant certificates, licences, consents, permits and approvals;
(p) expected number of truck movements each hour, based on the predicted maximum monthly spoil generation amounts and hours of operation of worksites;
(q) roles and responsibilities of the Contractor's personnel and Subcontractors;
(r) review and reporting procedures; and
(s) procedures for regular updating of the Traffic Management Plan on an as needs basis or at the direction of the Principal's Representative.

Where nominated in TSR Prelude Annexure A, the Contractor must prepare a detailed Traffic Control Plan (TCP) generally in accordance with the RTA guideline Traffic Control at Worksites 3rd Ed (September 2003) for the Site. The TCP must be submitted to and approved by all relevant Authorities and the Principal's Representative prior to the commencement of any work on the Site. Thereafter, the Contractor must ensure that the approved TCP is available for inspection by the Principal's Representative or any officer of WorkCover NSW, NSW Police, an Authority or the RMS.

C19 Worksite Protection Plan
The Contractor must prepare, implement and maintain a Worksite Protection Plan which details Worksite Protection arrangements appropriate for the Contractor's Activities that comply with RailCorp RailSafe Network Rules, RailCorp RailSafe Network Procedures, TfNSW Rail Safe Working Standard (4TP-ST-014) and TfNSW Rail Safe Working Arrangements Procedure (4TP-PR-106) and TSR S1.

C20 Defect Management Plan
The Contractor must prepare, implement and maintain a "Defect Management Plan" that addresses the Contractor's obligations and responsibilities relating to the management of Defects. The Defect Management Plan must:

(a) address all contractual requirements for managing Defects;
(b) clearly specify the strategy for managing Defects raised internally by the Contractor, raised by the Principal and raised by RailCorp; and
(c) include a Defect management procedure which must include the utilisation of the Scenario 6 software (see Scenario - Defect Management (4TP-PR-158) ) - a tool provided by the Principal.
TfNSW Standard Requirements

TSR Q1 – Quality Management

50-FT-177/1.0

Standard Applicable to: Transport Projects Division

TPD Quality Management System

Status: Draft
Division: Transport Projects
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ANNEXURE A - Additional Project Requirements
ANNEXURE B - List of Reference Documents
1  Introduction

1.1  General

The purpose of this TSR Q1 is to describe the quality requirements and processes which the Contractor (including Subcontractors) must comply with under the Contract.

1.2  Terms and Definitions

Unless the context otherwise provides, wherever used in this TSR Q1, words and phrases defined in the TSR Prelude, the General Conditions, ISO9000 and ISO9001:2008 have the meaning given to them in those documents.

1.3  User instructions

For a contract other than Alliance contract, the definitions used in this TSR Q1 have the meanings as set out in the Contract and in TSR Prelude.

For an Alliance contract, the definitions used in this TSR Q1 have the meanings as set out in the Project Alliance Agreement and in TSR Prelude as well as below. Where a defined term below conflicts with a defined term in TSR Prelude the defined term below will apply:

"Contract" means "Agreement".

"Contractor" means "Alliance".

"Contractor's Activities" means "Alliance Activities".

"Design Documentation" means all design documentation (including design standards, design reports, construction descriptions, specifications, models, samples, calculations, drawings, digital records, computer software and all other relevant data) in computer readable and written forms, or stored by any other means, required to be produced by the Alliance to design and construct the Alliance Works.

"Principal" means "TfNSW".

"Principal's Representative" means "TfNSW Representative".

"Project Definition Documents" means any or all of the following:

(a) The Project Brief;
(b) The Business Requirements Specification (BRS);
(c) The System Requirements Specification (SRS); and
(d) any other Project Definition Phase documents provided by the Principal.

"Temporary Works" means "Alliance Temporary Works".

"Works" means "Alliance Works".
2 Contractor’s Quality Management System

The Contractor must have in place and maintain a quality management system compliant with ISO 9001:2008 and the NSW Government Quality Management System Guidelines.

Where the Contractor’s quality management system is accessible electronically, the Contractor may (subject to prior written approval from the Principal’s Representative) provide the Principal with access to project relevant parts of its electronic system in lieu of hard copies. At any time during the Contract, the Principal’s Representative may request that the Contractor submit hard or electronic copies of any and all documents relevant to the Contractor’s Activities and the Works.

3 Contractor’s Quality Management Plan

The Contractor must develop and implement a project-specific “Quality Management Plan” or “QMP” which describes how the requirements of ISO 9001:2008 will be implemented during the project. The Contractor must describe the method for preparing the QMP and include guidelines about how to determine project-specific requirements applicable to the Works.

The Contractor must fully address the requirements of both ISO 9001:2008 and TSR Q1 in the QMP. The quality assurance provisions contained within TSR Q1 and ISO 9001:2008 are in addition to any technical requirements prescribed in the Project Definition Documents.

3.1 Control of Documents

The Contractor must stipulate the processes and approval regime for the drafting, modifying and updating of the QMP.

In addition to the requirements of ISO 9001 Clause 4.2, the Contractor must provide access (to the Contractor’s personnel and the Principal’s Representative) at all times at the Site to copies of ISO 9001, the Contract and the Design Documentation required by the Contract or necessary to be produced by the Contractor to design and construct the Works and Temporary Works.

3.2 Control of Quality Records

The Contractor must retain all product and service conformance records including the Subcontractors’ service conformance records and certificates (together the “Quality Records”) for a period of no less than five (5) years from the Date of Completion. The Quality Records produced must satisfy the requirements of the Contract. TSR Q1 Annexure C includes a non-exhaustive list of Quality Records which are required by this TSR Q1. The Contractor must review this list and add any other Quality Records set out in the Contract.

All records must be made available to the Principal. Copies of these documents must be forwarded to the Principal for his own copy and record and the Contractor must ensure that the Principal’s copies are kept current and up-to-date. Where the Contractor is required to forward records to the Principal’s Representative, the Contractor must submit one original and three copies (one of which is unbound) of each document (including draft and final reports, specifications, drawings, plans, etc). In addition, the Contractor must also submit an electronic copy on CD/DVD in PDF and native formats (such as Microsoft Word, Microsoft Excel, CAD in *.dwg or *.dgn) of all relevant documents.
Upon request by the Principal's Representative, the Contractor must provide the Principal's Representative with copies of any Quality Records. Those Quality Records which are not required or not available on-site, must be forwarded to the Principal's Representative within three (3) Business Days of the request.

3.3 Submission

The QMP must be submitted to the Principal's Representative for review in accordance with the requirements set out in the Contract and TSR Prelude.

Where the Contractor's quality management system including the project QMP is not structurally comparable with the structure of ISO 9001:2008, the Contractor must include a matrix or equivalent in the QMP demonstrating how the Contractor's QMP addresses the requirements of TSR Q1 and ISO 9001:2008. An example compliance matrix is included in TSR Q1 Annexure C.

The Principal's Representative may at any time by written notice direct the Contractor to further develop, update or amend the QMP or any of its parts. Such direction will specify the reasons why such development, update or amendment is required. Whenever such a direction is issued, the Contractor must submit the revised QMP to the Principal's Representative for review in accordance with the requirements set out in the Contract and TSR Prelude.

3.4 Management Review

The Contractor must review and update the QMP in accordance with the requirements of ISO 9001 Clauses 5.6, 5.6.2 and 5.6.3:

(a) if the term of the Contractor's Activities exceeds 6 months; or
(b) if specified in TSR Prelude.

3.5 Internal Audit

The Contractor must proactively ensure that its quality management system through the QMP is implemented and effective at achieving conformity with all requirements of the Contract and the QMP. The Contractor must incorporate in the QMP an audit schedule for the Contractor's Activities. This schedule must include the following types of audit:

(a) audits of the operation of the quality management system to evaluate its effectiveness as applied to the project;
(b) product and service audits to assess the conformity of the product or service with the specified requirements; and
(c) audits of work process control, to evaluate how effectively work process controls are implemented in practice.

The Contractor's audit must include in its scope the activities and products of Subcontractors engaged to carry out any of the Contractor's Activities. The audit schedule must be periodically reviewed and adjusted by the Contractor during the performance of the Contractor's Activities to ensure that the frequency of audits and the areas targeted for audit are relevant to the stage of the Contractor's Activities at which they are undertaken. The Contractor must provide the
Principal's Representative with access to the audits, audit findings and audit action closeout progress.

The Principal will conduct audits of the Contractor’s QMP to verify compliance with the requirements of the Contract. The Contractor must make available all resources including documentation and personnel to support these audits. The audits will be carried out as collaborative audits as described in TSR Prelude.

4 Management Responsibility

4.1 Responsibility, Authority and Communication

The QMP must:

(a) include a description of the management structure for control of the Contractor’s Activities down to foreman/supervisor level including any support for work health and safety, environment and quality personnel;

(b) list the main responsibilities and authorities of persons identified in the management structure including responsibilities for:

(i) receiving, in-process and final inspection and testing;

(ii) identifying/recording quality problems;

(iii) ensuring corrective action is implemented and effective; and

(iv) controlling non-conforming products until they are rectified; and

(c) nominate persons to have the responsibility and authority for planning and implementing training and induction for the quality management system for the Contractor’s Activities, including establishing competence needs.

4.2 Management Representative

The Contractor must nominate in the QMP a “Management Representative” who is to have the responsibility and authority to enact the requirements of ISO 9001 Clause 5.5.2.

The Management Representative must be contactable by telephone and email at all times during the undertaking of the Contractor’s Activities and must be available to attend meetings at the Principal’s office or at the Site within 48 hours of notice by the Principal’s Representative.

5 Design and Development

Where the design of any part of the Works or Temporary Works is part of the Contractor’s Activities, the Contractor must develop and maintain a Design Management Plan in accordance with the requirements of TSR T1 for all design activities, including those of Subcontractors engaged for design work. Where a design Subcontractor does not have a quality management system which complies with the Contract requirements, the Design Management Plan must include the method of control and verification of the Subcontractors’ activities.
The Contractor may only commence construction activity once all conditions precedent to the commencement of construction activities, including receipt of the Approved for Construction drawings and all requirements under TSR T1, have been met. Drawings such as shop drawings, combined services layouts, structural electrical and mechanical drawings, and equipment installation drawings, which are typically produced during the construction phase, are to be submitted to the Principal's Representative for review in accordance with the requirements set out in the Contract.

6 Purchasing

6.1 Purchasing Process

The QMP must include a procedure which includes methods to systematically plan and conduct surveillance of Subcontractors' work and any plant, equipment and materials procured for the Works and/or the Temporary Works.

The Contractor must document in the QMP how the procurement requirements set out in the Contract will be included in Subcontracts where applicable.

6.1.1 Surveillance of Subcontractor's work

Where a Subcontractor is to carry out work or provide services that require process verification, the Contractor must evaluate each Subcontractor on its capability to perform this verification. The Contractor must document this evaluation.

With each request to the Principal's Representative for the subcontracting of any part of the Contractor's Activities to Subcontractors (for work that requires the Principal's Representative's approval), the Contractor must submit the following documentation to the Principal's Representative:

(a) a listing of the requirements that are applicable and an explanation of how these requirements have been conveyed to the proposed Subcontractor;

(b) the results and findings of the Contractor's evaluation of the proposed Subcontractor's capability to undertake the works effectively, and of the Subcontractor's method of process verification; and

(c) an explanation of how the Contractor plans to systematically conduct surveillance (inspect, monitor, audit and test) of the Works and Temporary Works once subcontracted to the proposed Subcontractor.

The Contractor must comply with TSR Q1 Clause 7 when receiving products from Subcontractors.

The QMP must include the Subcontractor's documentation used to control processes and to verify the purchased products.

The Contractor must plan and document the surveillance method that will be utilised for each Subcontractor including for the management of information and records generated by Subcontractors. The Contractor must review the documentation submitted by each Subcontractor to ensure that all requirements (including process control and inspection/testing) of the Project Definition Documents are addressed and include this documentation in the Quality Records. The Contractor's surveillance process must cover how nominated Hold Points will be released and
other activities to verify that the Subcontractor's output complies with the Principal’s requirements.

6.1.2 Procurement of plant, equipment and materials

The Contractor must incorporate any manufacturer and supplier recommendations and directions into its work process, checks and verification to ensure that items are purchased, stored, handled, installed and commissioned in a defect-free state so that the Contractor does not infringe any warranty conditions.

Purchased products and services must be compatible with other products and the Works and the Temporary Works and must be handled, stored, installed and used in accordance with the manufacturer’s recommendations.

The Contractor must control delivery schedules so as to minimise long-term storage of products at the Site, and overcrowding of construction spaces. In particular, the Contractor must provide delivery/installation coordination to ensure minimum holding or storage times for products and materials which are recognised to be flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other causes of loss.

The Contractor may only request that a material or work process specified in the Project Definition Documents be substituted, if there is a demonstrated advantage to the Principal for the substitution. Should the Contractor request a substitution, the request must:

(a) fully identify the product, method or material which is requested to be substituted, and include all information as elsewhere required which applies to the product, method or material to be substituted. The request must also clearly indicate how the proposed product, material or method satisfies the requirements of the Contract in full;

(b) include product data/drawings, description of methods, samples where applicable, a detailed comparison of significant qualities between the current and proposed items, coordination of proposed product, method, material with other affected work, cost information for the proposed product, material or method, and a statement from the Contractor to the effect that the proposed substitution will result in overall work equal to or better than work originally indicated; and

(c) state whether the use of the substitution will require alteration to any part of the Works or the Temporary Works.

The approval of any proposed substitution under the Contract is at the sole discretion of the Principal’s Representative.

6.1.3 Compliance with design

Where the design of any part of the Works or Temporary Works is part of the Contractor’s Activities, the Contractor’s Design Manager must certify that the quality documentation is adequate and sufficient to demonstrate compliance of the Contractor’s Activities with the design requirements.
7 Production and Service Provisions

7.1 Control of Production and Service Provisions

The Contractor must include in the QMP work method statements or equivalent process control documents.

The Contractor must prepare and update a schedule of all the proposed work method statements, with estimated dates of their submission to the Principal’s Representative. The schedule of proposed work method statements must also include any work method statements nominated by the Principal as required. If the QMP is to be submitted in stages in accordance with TSR Q1 Clause 3.3 then the initial schedule of proposed work method statements must be part of the first submission of the QMP. The Contractor must update the schedule of proposed work method statements for submission to the Principal’s Representative on a monthly basis, and seek the involvement of the Principal’s designers (to the extent that it is relevant to do so).

The Contractor must apply effective procedures to plan, document, implement and monitor the work process including:

(a) the sequence of operations;
(b) risk assessments and controls to manage the risks and hazards;
(c) actions for addressing quality, environmental protection and work health and safety requirements;
(d) types of equipment required, capability, maintenance and calibration;
(e) any special working environment aspects;
(f) competency and skills of personnel;
(g) work methods and materials to be used;
(h) product characteristics, tolerances and workmanship standards to be met;
(i) inspection, tests and control points;
(j) how the process will be implemented and monitored to ensure its continuing sustainability;
(k) records to be kept as evidence that the work process controls are and remain effective; and
(l) defining the responsibility for implementing and monitoring work process controls and rectifying any deficiencies.

Where the design of any part of the Works is part of the Contractor’s Activities, the Contractor’s Design Manager must certify that the work method statements adequately address the design requirements.

7.2 Validation of Processes Where Outputs Cannot be Verified

The Contractor must identify in the QMP any work process (including Subcontractor work) where the resulting output cannot be verified by subsequent monitoring and measurement. For these
work processes, control of the work must be documented and implemented in accordance with ISO 9001 Clause 7.5.2.

7.3 Identification and Traceability

The Works and the Temporary Works are to be subdivided into lots or discrete work areas. A lot or discrete work area must consist of a continuous portion of homogeneous and/or representative material or end product under essentially constant conditions.

The Contractor must document in the QMP the method(s) for subdividing the Works and the Temporary Works into lots or discrete work areas and for allocating lot numbers to uniquely identify each lot.

The Contractor must use the lot number as an identifier on all quality records. The lot number must be recorded on an appropriate register that indicates the three-dimensional location of the lot.

The Principal has the right to reject a lot or discrete work area that is visually non-homogeneous and/or non-representative.

7.4 Setting-Out and Survey

The Contractor must describe in the QMP how it will set-out and survey the Works.

The Contractor must:

(a) check and verify all dimensions and levels on Site and the location of existing services on and within the Site;
(b) set out and survey in accordance with the coordinate system specified in TSR Q1 Annexure A;
(c) verify positions of grids and levels from survey marks;
(d) verify and confirm its acceptance of the cadastral survey and all property boundaries provided by the Principal's Representative;
(e) set out the Works using permanent survey marks for the sole purpose of the Works. The permanent survey marks must be coordinated with the cadastral survey;
(f) preserve and maintain in their true position all survey marks;
(g) give the Principal's Representative not less than 2 Business Days notice of its intention to perform any part of the setting out or levelling, so that suitable arrangements can be made for review of the work by the Principal's Representative; and
(h) provide adequate recovery pegs in suitable locations within or adjacent to the Site.

7.4.1 RailCorp Detailed Site Survey

When conducting RailCorp detailed site surveys, the Contractor must comply with the RailCorp requirements set-out in the reference documents listed in TSR A1 Annexure B. The Contractor must ensure that the personnel performing the RailCorp detailed site surveys are competent and familiar with rail survey requirements.
7.4.2 Measuring equipment

The Principal’s Representative will accept certification for laboratory testing equipment from the National Association of Testing Authorities, Australia (NATA), as satisfying the requirements for calibration and verification of measuring equipment described in ISO 9001 Clause 7.6.

8 Quality Inspections, monitoring and reporting

8.1 General

The Contractor must carry out inspection and testing in order to demonstrate conformity of the product to specified requirements. This inspection and testing must be undertaken:

(a) before the product is used in the Works (receiving inspection and testing);
(b) progressively during construction of the Works (in-process inspection and testing); and
(c) as a final check to demonstrate conformity of the product with the Contract requirements (final or acceptance inspection and testing).

The QMP must describe the Contractor’s methodology for and processes of inspection and testing.

8.2 Inspection and Test Planning

The Contractor must prepare, maintain and update inspection and test plans in accordance with TfNSW Inspection and Test Plans – Minimum Requirements Standard (4TP-ST-068).

The Principal may supply the Contractor with specific requirements and inspection and testing regimes for inclusion within the Contractor’s ITPs (refer to TSR Q1 Annexure A). The Contractor must incorporate these requirements and inspection and testing regimes into its ITPs to ensure that they cover all acceptance criteria and design intent prior to the submission of the ITPs to the Principal’s Representative for review.

Where the design of any part of the Works or Temporary Works is part of the Contractor’s Activities, the Contractor must ensure that all design Subcontractors review and endorse the Contractor’s ITPs to ensure that they cover all acceptance criteria and design intent prior to the submission of the ITPs to the Principal’s Representative for review.

The Contractor must submit any ITPs, inspection, test and verification records to the Principal’s Representative for review in accordance with the requirements set out in the Contract. The Principal’s Representative will then nominate Hold Points and Witness Points in addition to the ones already nominated in TSR Q1 Annexure A.

8.3 Monitoring and Measurement of Product

8.3.1 General

The Contractor must implement the ITPs for the project, as established in TSR Q1 Clause 8.2.
Unless otherwise agreed by the Principal's Representative, independent laboratories with current registration under a Joint Accreditation System of Australia and New Zealand (JAS-ANZ) registered authority must perform all laboratory testing undertaken for the Works.

8.3.2 Hold Points and Witness Points

The Contractor must establish and maintain a register of all Contractor and Principal nominated Hold Points and Witness Points for undertaking the Contractor's Activities. The Principal's nominated Hold Points and Witness Points are listed in the table in TSR Q1 Annexure A. The register must clearly identify the Hold Points and Witness Points. The register must be updated on a monthly basis to include all Hold Points and Witness Points to be implemented in the following 3 months.

The register and details of the Hold Points and Witness Points must be submitted to the Principal's Representative for review in accordance with the requirements set out in the Contract initially at CDR stage of the detailed design and thereafter one (1) Business Day following each update. The Principal's Representative will undertake a review of the register and may nominate additional Hold Points and Witness Points.

The Contractor must not proceed beyond a Hold Point until the Principal has released the Hold Point. The Contractor must describe in the QMP the method of arranging for the release of Hold Points by the Principal.

8.3.3 Close out of Work Lots and Release of Products

Work lots must not be closed out or products released, dispatched, used or installed until the Contractor has fully verified their conformity. This may involve obtaining the Principal's approval or release if this is required in the Project Definition Documents and/or the QMP.

Where products or work fail to pass an inspection or test, the work lot must not be closed out until the non-conformity has been rectified and closed out in accordance with TSR Q1 Clause 8.4.

8.4 Control of Non-conforming Product

The Contractor must describe in the QMP how the requirements of this TSR Q1 Clause 8.4 will be implemented on the project.

The Contractor must identify and control all products that fail to meet the acceptance criteria. The Contractor must notify the Principal's Representative of the non-conformity and record it on an appropriate register. The Contractor must submit a non-conformity report within two (2) Business Days of detection, indicating the proposed disposition and when the disposition is proposed to be undertaken.

If the Principal, through its own surveillance or audit, identifies a non-conformance that has not been identified or satisfactorily addressed by the Contractor’s system, the Principal will issue a TfNSW System Improvement Observation (QTP-FT-033). This non-conformity must be dealt with in the same manner as if it had been identified by the Contractor.

All detected non-conformances constitute a Hold Point until a rectification method has been accepted by the Principal and implemented by the Contractor.
8.5 Corrective Action

The Contractor must establish and maintain a "Corrective Action Register" to record a summary of corrective actions. The Corrective Action Register must be established prior to the commencement of the Contractor's Activities.

If surveillance or any audit by the Principal indicates that the Contractor's quality management system does not comply with the provisions of the Contract then the Principal may issue a TfNSW System Improvement Observation (9TP-FT-033). The Contractor must rectify any non-conformities and issues notified by the Principal.

Hold Point: The process referred to in TfNSW System Improvement Observation (9TP-FT-033).
Submission Details: Details of the corrective action to be implemented.
Release of Hold Point: Upon evaluation, the Principal may provide its written authorisation for the release of the Hold Point.

8.6 Preventative Action

The Contractor must establish and maintain a "Preventative Action Register" to record a summary of preventative actions. The Preventative Action Register must be established prior to the commencement of the Contractor's Activities.

Cleaning and Protection of Work

Whilst undertaking the Contractor's Activities the Contractor must clean and protect the Works, the Temporary Works and the Site. The Site must be in a clean and tidy state at all times (including free from graffiti).

The Contractor must protect newly installed work to ensure no damage or deterioration occurs. The Contractor must also clean and perform maintenance on newly installed Works as frequently as necessary in accordance with the manufacturers' and other relevant cleaning, protection and maintenance requirements until Completion.

The Contractor must remove protection when directed by the Principal's Representative. The Contractor must clean and make good, re-work or re-build any Works soiled, marred or damaged.
9.1 Final Cleaning

The Contractor must provide final cleaning of any building works, immediately prior to Completion. This must consist of cleaning each surface of unit of work to a clean condition expected from a first class building cleaning and maintenance program.

The Contractor must comply with the manufacturer's instructions for cleaning operations.

The necessary building cleaning work includes, but is not limited to, the following:

(a) removal of labels that are not required as permanent labels;
(b) cleaning of exposed exterior and interior hard surfaced finishes to be free from dirt, fingermarks, films and any foreign substances and marks;
(c) except as otherwise indicated by the Project Definition Documents or as directed by the Principal's Representative, avoid disturbance of natural weathering of exterior surfaces;
(d) restore reflective surfaces to original and new reflective condition;
(e) wiping the surface of mechanical and electrical equipment clean, including lift equipment and similar equipment and remove excess lubrication and other substances;
(f) removal of debris and surface dust from limited access spaces, paying particular attention to concealed spaces such as plumbing ducts, shafts, pits, cupboards and false ceiling spaces;
(g) vacuum cleaning of floors, including concrete floors, in areas intended to be occupied;
(h) thorough sweeping, cleaning and where required vacuuming, of all floors to ensure a clean and dust free surface;
(i) cleaning light fixtures and lamps so as to function with full efficiency (re-lamp non functioning lamps); and
(j) cleaning signage.

The Contractor must employ experienced workmen or professional cleaners for final cleaning operations.
ANNEXURE A – Additional Project Requirements
Annexure A - Additional Project Requirements

A1 Coordinate System
Set out and survey in accordance with the coordinate system specified. Map Grid of Australia (MGA) Mentioned in Clause 7.4

A2 Inspection and Test Planning (Mentioned in Clause 8.2)
No specific requirements

A3 Notification of testing
For all tests to be witnessed by the Principal or its representative(s), the Contractor must provide the Principal’s Representative with at least five (5) Business Days written notice for any tests to be performed in Australia external to the Asset Lands, and at least 45 days written notice for tests to be performed overseas, or such other time as determined from time-to-time by the Principal’s Representative, to enable the Principal to make arrangements for attendance.

A4 Submission of inspection and testing records
The Contractor must submit all certificates, inspection records, test results/records and verification records to the Principal’s Representative for review under clause 9.14 of the General Conditions, no later than ten (10) Business Days following the certification, inspection or test date.
A5 Principal nominated Hold Points and Witness Points ((Mentioned in Clauses 8.2 and 8.3.2))

The Principal's nominated Hold Points and Witness Points are listed in the table below.

<table>
<thead>
<tr>
<th>ID</th>
<th>Witness Point / Hold Point</th>
<th>Element of Work</th>
<th>Process Held/ Process to be Witnessed</th>
<th>Submission Details</th>
<th>Release of Hold Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>Witness</td>
<td>Inspect bearing capacity of foundation.</td>
<td>Process to be witnessed</td>
<td></td>
<td></td>
<td>As advised by the geotechnical engineer</td>
</tr>
<tr>
<td>Hold</td>
<td>Inspection of lift shaft pit reinforcement.</td>
<td>Process held</td>
<td></td>
<td></td>
<td>As certified by the structural engineer</td>
</tr>
<tr>
<td>Hold</td>
<td>Inspection of steel reinforcement to concrete columns, beams and slabs.</td>
<td>Process held</td>
<td></td>
<td></td>
<td>As certified by the structural engineer</td>
</tr>
<tr>
<td>Hold</td>
<td>Submit work shop drawings for steelwork.</td>
<td>Process held</td>
<td>Shop drawings</td>
<td></td>
<td>As certified by the structural engineer</td>
</tr>
<tr>
<td>Hold</td>
<td>Inspection of fabricated steelwork prior to hot dipped galvanising.</td>
<td>Process held</td>
<td></td>
<td></td>
<td>As certified by the structural engineer</td>
</tr>
<tr>
<td>Witness</td>
<td>Erected Steelwork.</td>
<td>Process to be witnessed</td>
<td></td>
<td></td>
<td>As advised by the structural engineer</td>
</tr>
<tr>
<td>Witness</td>
<td>Items to be built in: located in their correct positions, including damp-proof course, flashings, bolts and structural steelwork.</td>
<td>Process to be witnessed</td>
<td></td>
<td></td>
<td>As advised by the Architect</td>
</tr>
<tr>
<td>Witness</td>
<td>Structural steel 50% Completion.</td>
<td>Process to be witnessed</td>
<td></td>
<td></td>
<td>As advised by the Architect</td>
</tr>
<tr>
<td>Witness</td>
<td>Structural steel 100% Completion.</td>
<td>Process to be witnessed</td>
<td></td>
<td></td>
<td>As advised by the Architect</td>
</tr>
<tr>
<td>Witness</td>
<td>Internal Finishes 100% Completion.</td>
<td>Process to be witnessed</td>
<td></td>
<td></td>
<td>As advised by the Architect</td>
</tr>
<tr>
<td>Witness</td>
<td>Cladding Painting 100% Completion.</td>
<td>Process to be witnessed</td>
<td></td>
<td></td>
<td>As advised by the Architect</td>
</tr>
<tr>
<td>Witness</td>
<td>25% Completion - Inspection of wiring prior to covering up.</td>
<td>Process witnessed</td>
<td></td>
<td></td>
<td>As advised by electrical engineer</td>
</tr>
<tr>
<td>ID</td>
<td>Witness Point / Hold Point</td>
<td>Element of Work</td>
<td>Process Held/ Process to be Witnessed</td>
<td>Submission Details</td>
<td>Release of Hold Point</td>
</tr>
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</tr>
<tr>
<td></td>
<td>Witness</td>
<td>50% Completion - Testing Electrical Switchboard.</td>
<td>Process witnessed</td>
<td></td>
<td>As advised by electrical engineer</td>
</tr>
<tr>
<td></td>
<td>Hold</td>
<td>100% Completion - Final Testing including RailCorp testing.</td>
<td>Process held</td>
<td></td>
<td>As advised by electrical engineer</td>
</tr>
<tr>
<td></td>
<td>Witness</td>
<td>25% Completion checking invert levels.</td>
<td>Process witnessed</td>
<td></td>
<td>As advised by hydraulic engineer</td>
</tr>
<tr>
<td></td>
<td>Hold</td>
<td>50% Testing Drainage.</td>
<td>Process held</td>
<td></td>
<td>As advised by hydraulic engineer</td>
</tr>
<tr>
<td></td>
<td>Hold</td>
<td>100% Completion and testing system.</td>
<td>Process held</td>
<td></td>
<td>As advised by hydraulic engineer</td>
</tr>
<tr>
<td></td>
<td>Hold</td>
<td>100% Completion and testing system.</td>
<td>Process held</td>
<td></td>
<td>As advised by mechanical engineer</td>
</tr>
<tr>
<td></td>
<td>Hold</td>
<td>As detailed in various trade sections</td>
<td>Process held</td>
<td>Shop drawings</td>
<td>As advised by architect</td>
</tr>
<tr>
<td></td>
<td>Hold</td>
<td>As detailed in various trade sections</td>
<td>Process held</td>
<td>Samples</td>
<td>As advised by architect</td>
</tr>
</tbody>
</table>
ANNEXURE B – List of Reference Documents
List of Reference Documents

NSW Government Quality Management System Guidelines
TfNSW System Improvement Observations (9TP-FT-033)
TfNSW Inspection and Test Plans – Minimum Requirements (4TP-ST-068)

The table below has four columns.

(a) Column 1 contains ISO 9001:2008 Elements, Sections and sub-sections
(b) Column 2 describes the minimum Contractor Requirements that TfNSW expects for each row of the Standard
(c) Column 3 indicates whether the document is to be submitted to the Principal.
(d) Column 4 - where the Contractor’s QMP is not structurally comparable with the structure of ISO 9001:2008 as described in column 1, the Contractor must identify in this column (called Alignment), where in its QMP it addresses the requirements of columns 1 and 2.
### Quality Management

<table>
<thead>
<tr>
<th>AS/NZS ISO 9001:2008</th>
<th>TfNSW Contractor Quality Requirements</th>
<th>Issue to the Principal</th>
<th>Alignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clause</td>
<td>Clause</td>
<td>Requirements</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>QUALITY MANAGEMENT SYSTEM (QMS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>General requirements</td>
<td>Refer to ISO 9001:2008 Standard</td>
<td></td>
</tr>
<tr>
<td>4.2</td>
<td>Documentation requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.2.1</td>
<td>General</td>
<td>Refer to QMS documentation requirements</td>
<td></td>
</tr>
<tr>
<td>4.2.2</td>
<td>Quality manual</td>
<td>Does it comply with NSW Govt. Guidelines?</td>
<td>*</td>
</tr>
<tr>
<td>4.2.3</td>
<td>Control of documents</td>
<td>Contractor procedure to define the controls needed</td>
<td>*</td>
</tr>
<tr>
<td>4.2.4</td>
<td>Control of records</td>
<td>List of all quality records, with a final list issued upon completion. Ensure this is the same as the Records Management Plan as a minimum.</td>
<td>*</td>
</tr>
<tr>
<td>5</td>
<td>MANAGEMENT RESPONSIBILITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1</td>
<td>Management commitment</td>
<td>Contractor Quality Policy</td>
<td>*</td>
</tr>
<tr>
<td>5.2</td>
<td>Customer focus</td>
<td>Contractor Quality Policy</td>
<td>*</td>
</tr>
<tr>
<td>5.3</td>
<td>Quality policy</td>
<td>Does it address TfNSW (customer) requirements?</td>
<td>*</td>
</tr>
<tr>
<td>5.4</td>
<td>Planning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.4.1</td>
<td>Quality objectives</td>
<td>Contractor to demonstrate how these will be met to the satisfaction of the Principal</td>
<td>*</td>
</tr>
<tr>
<td>AS/NZS ISO 9001:2008</td>
<td>TfNSW Contractor Quality Requirements</td>
<td>Issue to the Principal</td>
<td>Alignment</td>
</tr>
<tr>
<td>----------------------</td>
<td>---------------------------------------</td>
<td>------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td><strong>Clause</strong></td>
<td><strong>Requirements</strong></td>
<td><strong>Principal</strong></td>
<td><strong>Clause</strong></td>
</tr>
<tr>
<td>5.4.2 Quality management system planning</td>
<td>QMP, does it refer to the Contractor Quality Manual?</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>QMP, does it include and refer to all of the Contractor management system</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Procedures needed to undertake the Project?</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>QMP including other management Plans required under the contract, and stipulated in all TSR's</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>5.5 Responsibility, authority and communication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.5.1 Responsibility and authority</td>
<td>List of the responsibilities, authorisations and communications methodology within the project and with the Principal</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>5.5.2 Management representative</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.5.3 Internal communication</td>
<td>Explain how Contractor and Principal Communications will interface</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>5.6 Management review</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.6.1 General</td>
<td>What review arrangements are in place for the design/planning/construction stages?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.6.2 Review input</td>
<td>Records of management reviews, decisions and actions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.6.3 Review output</td>
<td>Records of decisions and actions undertaken</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 RESOURCE MANAGEMENT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AS/NZS ISO 9001:2008 Quality Management Clause</td>
<td>TfNSW Contractor Quality Requirements</td>
<td>Issue to the Principal</td>
<td>Alignment</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>--------------------------------------</td>
<td>------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>6.1 Provision of resources</td>
<td>Contractor invited comment on how this is managed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.2 Human resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.2.1 General</td>
<td>Personnel qualifications/skill records</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.2.2 Competence, training and awareness</td>
<td>Induction and training records, including subcontractors and evidence of implementation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.3 Infrastructure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.4 Work environment</td>
<td>Records of work environment controls, where applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 PRODUCT REALISATION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.1 Planning and product realisation</td>
<td>All Contractor Plans including but not limited to Drawings and Designs required to satisfy TfNSW</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Be prepared to demonstrate the application of WRA, AMS, ITP processes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.2 Customer-related process</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.2.1 Determination of requirements related to the product</td>
<td>Project delivery and post delivery activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Statutory and regulatory requirements applicable to the Project</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>any additional requirements considered necessary by TfNSW</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Annexure C - Alignment of the Contractor Quality Management Plan with ISO 9001:2008

<table>
<thead>
<tr>
<th>AS/NZS ISO 9001:2008</th>
<th>TfNSW Contractor Quality Requirements</th>
<th>Issue to the Principal</th>
<th>Alignment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quality Management</strong></td>
<td>All clauses need to be supported by systems and process which can be demonstrated or evidence provided.</td>
<td>The Contractor is to identify where its Quality Management Plan meets the requirements</td>
<td></td>
</tr>
<tr>
<td>Clause</td>
<td>Clause</td>
<td>Requirements</td>
<td>Clause</td>
</tr>
<tr>
<td>7.2.2</td>
<td>Review of requirements related to the product</td>
<td>All records and results of reviews including actions related to the Project through all stages</td>
<td></td>
</tr>
<tr>
<td>7.2.3</td>
<td>Customer communication</td>
<td>Minutes of tender/contract reviews</td>
<td></td>
</tr>
<tr>
<td>7.3</td>
<td>Design and development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.3.1</td>
<td>Design and development planning</td>
<td>Design and development planning records</td>
<td>*</td>
</tr>
<tr>
<td>7.3.2</td>
<td>Design and development inputs</td>
<td>Design and development input records</td>
<td>*</td>
</tr>
<tr>
<td>7.3.3</td>
<td>Design and development outputs</td>
<td>Design and development output records</td>
<td>*</td>
</tr>
<tr>
<td>7.3.4</td>
<td>Design and development review</td>
<td>Design and development review records</td>
<td>*</td>
</tr>
<tr>
<td>7.3.5</td>
<td>Design and development verification</td>
<td>Design and development verification records</td>
<td>*</td>
</tr>
<tr>
<td>7.3.6</td>
<td>Design and development validation</td>
<td>Design and development validation/certificate records</td>
<td>*</td>
</tr>
<tr>
<td>7.3.7</td>
<td>Control of design and development changes</td>
<td>Intermittent and final design reports</td>
<td>*</td>
</tr>
<tr>
<td>7.4</td>
<td>Purchasing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### ANNEXURE C – ALIGNMENT OF THE CONTRACTOR QUALITY MANAGEMENT PLAN WITH ISO 9001:2008

<table>
<thead>
<tr>
<th>Clause</th>
<th>ISO 9001:2008</th>
<th>TfNSW Contractor Quality Requirements</th>
<th>Issue to the Principal</th>
<th>Alignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.4.1</td>
<td>Purchasing process</td>
<td>Evaluation of subcontractor process and evidence</td>
<td>*</td>
<td>The Contractor is to identify where its Quality Management Plan meets the requirements</td>
</tr>
<tr>
<td>7.4.2</td>
<td>Purchasing information</td>
<td>What is the Contractor purchasing system especially for assuring product as supplied by sub-contractors?</td>
<td>*</td>
<td></td>
</tr>
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All clauses need to be supported by systems and process which can be demonstrated or evidence provided.
TfNSW Standard Requirements
TSR – S1 Safety Management

50-FT-178/1.0

Standard Applicable to: Transport Projects Division
TPD Quality Management System

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1 Introduction

1.1 General

The purpose of this TSR S1 is to describe the safety requirements and processes which the Contractor (including Subcontractors) must comply with under the Contract. All requirements of this TSR S1 also apply to Subcontractors unless otherwise specified.

1.2 User Instructions

For a contract other than an Alliance contract, the definitions used in this TSR S1 have the meanings as set out in the Contract and in TSR Prelude.

For an Alliance contract, the definitions used in this TSR S1 have the meanings as set out in the Project Alliance Agreement and in TSR Prelude as well as below. Where a defined term below conflicts with a defined term in TSR Prelude the defined term below will apply:

(a) “Contract” means “Agreement”;
(b) “Contractor” means “Alliance”;
(c) “Contractor’s Activities” means “Alliance Activities”;
(d) “Contractor’s Safety Management System” means the Safety Management System of the NOP specified as the Principal Contractor in the Agreement Particulars (refer to Clause 9.4 of the PAA).
(e) “Principal” means “TfNSW”;
(f) “Principal’s Representative” means “TfNSW Representative”;
(g) “Temporary Works” means “Alliance Temporary Works”; and
(h) “Works” means “Alliance Works”.

In the case of Section 7.10 (Security) reference to “Principal’s Representative” can also mean the “Alliance Leadership Team”.

2 General Safety Obligations

The Contractor must create a safe working environment for the undertaking of the Contractor’s Activities. The Contractor must ensure the health and safety of all workers, visitors and the general public on or within the vicinity of the Site and other work sites, and ensure that no unauthorised individuals gain access to the Site or other work sites. The Contractor must also ensure that noise, vibration and air pollution levels associated with the Contractor’s Activities are minimised and do not exceed the safety and environmental requirements for workers and the public as set out in TSR E1.
Without limiting any other obligations under the Contract, the Contractor must demonstrate compliance with:

(a) the WHS Legislation;
(b) the NSW Government OH&S Management System Guidelines;
(c) the NSW Government Guidelines for Auditing Project OHS Management Plans;
(d) the NSW Government Code of Practice for Procurement;
(e) its obligations as set out in any Interface Agreement (IA); and
(f) relevant standards and codes of practice.

Additionally, if the Contractor's Activities involve work in or adjacent to the Rail Corridor and the rail environment the Contractor must demonstrate compliance with:

(g) the Rail Safety Act 2008 (NSW) and Rail Safety (General) Regulation 2008 (NSW) (together the "Rail Safety Law");
(h) Rail Safety (Drug and Alcohol Testing) Regulation 2008 (NSW);
(i) RailCorp's RailSafe Network Rules;
(j) RailCorp's RailSafe Network Procedures;
(k) RailCorp's Safety Change Management Framework;
(l) the TfNSW Rail Safety Accreditation; and
(m) the AS 4292 Railway Safety Management.

The Contractor must have in place processes to:

(n) identify the requirements of the WHS Legislation and all other relevant WHS requirements;
(o) develop and implement actions to ensure compliance with paragraphs (a) - (m) above; and
(p) monitor compliance with paragraphs (a) - (m) above.

The Contractor and Subcontractors must comply with all work health and safety policies, procedures and measures which are implemented or directed by the Principal, or by occupiers of any premises within which the Contractor's Activities will be undertaken.

The Principal's Representative may issue the Contractor with Safety Alerts. The Contractor must comply with the direction and recommendations of any Safety Alert as issued by the Principal's Representative.

In the case of an Alliance contract, within four (4) weeks of the date of this Contract and prior to commencement of work within the Rail Corridor, the Contractor must seek to enter into an Interface Agreement with RailCorp and any other relevant party.
3 Contractor's Safety Management System

The Contractor's "Safety Management System" must remain accredited under the NSW Government Occupational Health and Safety System Guidelines whilst the Contractor's Activities are undertaken.

The Contractor must notify the Principal's Representative of any change to the Contractor's Safety Management System within five (5) Business Days of that change.

The Contractor must coordinate Subcontractors so that any safety matters are managed in accordance with the Contract and the Contractor's Safety Management System.

4 Contractor's Project Safety Management Plan

4.1 Scope

The Contractor must develop and implement a "Project Safety Management Plan" including Site-specific safety management plans and SWMS in accordance with:

(a) the NSW Government OH&S Management System Guidelines;
(b) the Contract (including this TSR S1);
(c) WHS Legislation;
(d) Rail Safety Law, if the Contractor's activities involves work in or adjacent to the Rail Corridor or the rail environment; and
(e) NSW Government Code of Practice for Procurement.

The Project Safety Management Plan must as a minimum:

(f) address the matters specified in Schedule 1 to the Contract and address all elements and objectives of the Contract (including this TSR S1) and the NSW Government OH&S Management System Guidelines;

(g) include processes and procedures for all safety elements and objectives within the Contract;

(h) identify who will be fulfilling the role of Senior Management Representative (as defined in the NSW Government OH&S Management System Guidelines Clause 4 "Management Responsibility"). This person will be responsible for implementing and maintaining the safety requirements of this TSR S1 (including monitoring the effectiveness of the Contractor's Safety Management System in complying with all safety requirements) and reporting to the Principal's Representative;

(i) identify the "Contractor's WHS Manager" who reports to the Contractor's senior management, is suitably qualified and experienced, and has defined authority and responsibility to ensure that the requirements of the Project Safety Management Plan are implemented and maintained. The Contractor's WHS Manager must be:

(i) based in the Contractor's site facilities for the duration of the Contractor's Activities at the Site; and
The Contractor must develop procedures to ensure that the Contractor’s Activities are undertaken in a controlled and safe manner. These safe working procedures must be regularly reviewed and updated by the Contractor to ensure that they are effectively implemented and improved where this is required to ensure compliance with the requirements of the Contract and the WHS Legislation.

All SWMS, regardless of whether they are authored by the Contractor or Subcontractors, must be listed on a consolidated SWMS register. An updated SWMS register must be attached to each submission of a SWMS to the Principal’s Representative. The Contractor must provide an electronic version of the SWMS register upon request by the Principal’s Representative. The Contractor must ensure that all SWMS are kept as required by the WHS Legislation.

4.2 Principal’s Project Safety Master Plan

The Principal’s Representative will issue the Contractor with a "Project Safety Master Plan" which is authored by the Principal. The Contractor must comply with all the requirements of the Project Safety Master Plan. Where nominated in TSR S1 Annexure A, the Principal will establish and manage a "Project Safety Leadership Team" for the Works. The Contractor must participate within this team as requested by the Principal.

4.3 Safety Risk Management

The Contractor must identify and treat safety risks in accordance with the Contractor’s Risk Management Plan and build upon the Principal’s Safety Hazard Logs. The requirements of Generic Rail Safety Risk Register (30-SD-038) are applicable if the Contractor’s Activities involve Railway Safety Work. The requirements of the Generic Work Health and Safety Operational Risk Register (30-SD-101) are also applicable.


These procedures must outline the method of hazard identification, the risk assessment processes and the control measures which will be applied for the Contractor’s Activities, including how the risks will be managed so far as is reasonably practicable.

In addition to the Engineering Safety requirements set out in TSR T1 the Contractor must maintain a "WHS Risk Register" which includes:

(a) a description of the risk/hazard and its likely impact;
(b) the risk level assessed for each hazard;
(c) specific control measures, including safe work methods to be implemented to eliminate or mitigate risks;

(d) the residual risks/hazards;

(e) methods to be used to monitor effectiveness of safe work methods and control measures;

(f) the person(s) responsible for monitoring implementation of the control measures;

(g) consultative processes employed by the Contractor in relation to the risk/hazard and the persons involved; and

(h) demonstrative application of hierarchy of controls undertaken to lessen the risks so far as is reasonably practicable.

4.4 Design

Where the design of the Works or the Temporary Works forms part of the Contractor’s Activities then the Contractor must also address the safety assurance requirements set out in TSR T1.

4.5 Safety Culture

The Project Safety Management Plan must document how the Safety Management System will be communicated to all persons associated with the Contractor’s Activities such that it is incorporated into the Contractor’s Activities.

The Contractor must develop and implement detailed procedures that promote a safer, healthier, more productive workplace. The procedures must establish and maintain an effective reporting system that facilitates the flow of information both within the Contractor’s organisation and between the Contractor’s organisation, Subcontractors and the Principal.

The Contractor’s procedures must address:

(a) the establishment of a culture that allows workers to adapt to their changing environment where required;

(b) hazard reporting;

(c) senior management safety tours;

(d) methods for providing feedback and set timeframes for such provision;

(e) methods to reduce the gap between “work as perceived” and “work as performed”, and what measures will be taken to bridge the gap;

(f) a method to communicate and share learning from successes and failures;

(g) the encouragement of teamwork and of employee involvement in promoting and maintaining a positive safety culture; and

(h) a method to demonstrate how site safety rules will be reflected in the practice on site and how such rules will be incorporated into the Contractor’s Activities.

If the duration of the Contractor’s Activities extends beyond 12 months, the Contractor must update its safety culture improvement procedures and submit these to the Principal's
Representative for review in accordance with the requirements set out in the Contract, 3 months prior to the expiry of the previous 12 month safety culture improvement procedures.

4.6 Submission

The Project Safety Management Plan must be submitted to the Principal’s Representative for review in accordance with the requirements set out in the Contract and TSR Prelude.

The Contractor must notify the Principal's Representative in writing of any change to the Project Safety Management Plan within 24 hours of that change.

**HOLD POINT:** Site mobilisation or site establishment.

**SUBMISSION DETAILS:** Submit the Project Safety Management Plan and associated documentation in accordance with the requirements set out in the Contract and TSR Prelude or at least 15 Business Days prior to the planned Site mobilisation or Site establishment commencement date (whichever occurs earlier).

**RELEASE OF HOLD POINT:** Within 15 Business Days of submission, the Principal's Representative will consider all submitted documentation to determine whether it adequately addresses the work health and safety requirements.

4.7 Auditing of Contractor’s Project Safety Management Plan

The Contractor must demonstrate to the satisfaction of the Principal’s Representative that it has implemented an effective self verification process for the Works which includes inspections and audits.

The Principal and regulatory agencies will conduct audits of the Contractor’s Project Safety Management Plan to verify its compliance with the requirements of the Contract.

The Contractor must make available all resources including documentation and personnel to support these audits. The audits will be carried out as collaborative audits involving the Contractor’s personnel and technical specialists.

In addition to the auditing requirements set out in the TSR Prelude and TSR Q1, the Contractor must comply with the requirements outlined in the NSW Government Guidelines for Auditing Project OHS Management Plans.

5 WHS Policy

The Contractor must document and endorse a work health and safety policy which complies with the NSW Government OH&S Management System Guidelines. The Contractor’s work health and safety policy must be consistent with the requirements of the TfNSW Safety Policy. In the case of an Alliance contract, the policy must be signed by all members of the Alliance Leadership Team. For all other contracts the policy must be signed by the Contractor's chief executive officer or appropriate delegated authority.

The policy must also be:

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TSR – 51 Safety Management

Representative for review in accordance with the requirements set out in the Contract, 3 months prior to the expiry of the previous 12 month safety culture improvement procedures.

4.6 Submission

The Project Safety Management Plan must be submitted to the Principal’s Representative for review in accordance with the requirements set out in the Contract and TSR Prelude.

The Contractor must notify the Principal's Representative in writing of any change to the Project Safety Management Plan within 24 hours of that change.

**HOLD POINT:** Site mobilisation or site establishment.

**SUBMISSION DETAILS:** Submit the Project Safety Management Plan and associated documentation in accordance with the requirements set out in the Contract and TSR Prelude or at least 15 Business Days prior to the planned Site mobilisation or Site establishment commencement date (whichever occurs earlier).

**RELEASE OF HOLD POINT:** Within 15 Business Days of submission, the Principal's Representative will consider all submitted documentation to determine whether it adequately addresses the work health and safety requirements.

4.7 Auditing of Contractor’s Project Safety Management Plan

The Contractor must demonstrate to the satisfaction of the Principal’s Representative that it has implemented an effective self verification process for the Works which includes inspections and audits.

The Principal and regulatory agencies will conduct audits of the Contractor’s Project Safety Management Plan to verify its compliance with the requirements of the Contract.

The Contractor must make available all resources including documentation and personnel to support these audits. The audits will be carried out as collaborative audits involving the Contractor’s personnel and technical specialists.

In addition to the auditing requirements set out in the TSR Prelude and TSR Q1, the Contractor must comply with the requirements outlined in the NSW Government Guidelines for Auditing Project OHS Management Plans.

5 WHS Policy

The Contractor must document and endorse a work health and safety policy which complies with the NSW Government OH&S Management System Guidelines. The Contractor’s work health and safety policy must be consistent with the requirements of the TfNSW Safety Policy. In the case of an Alliance contract, the policy must be signed by all members of the Alliance Leadership Team. For all other contracts the policy must be signed by the Contractor's chief executive officer or appropriate delegated authority.

The policy must also be:

---
(a) dated;
(b) displayed in prominent locations on site; and
(c) reviewed on an annual basis.

6 Emergency and Crisis Management Plan

The Contractor must develop, implement and maintain an "Emergency and Crisis Management Plan" in consultation with:
(a) the Principal;
(b) police, fire and ambulance services;
(c) any government agencies with emergency management functions in the area that the emergency plan applies;
(d) organisations that may be required to assist in implementing the emergency plan (e.g. service and telecommunications providers);
(e) Office of Environment and Heritage;
(f) local councils and relevant Authorities; and
(g) owners of neighbouring properties that affect or are affected by the Contractor’s Activities.

The Emergency and Crisis Management Plan must include:
(h) identification of reasonably foreseeable emergencies and measures to mitigate the consequences of these emergencies;
(i) an effective response to an emergency;
(j) the allocation of roles and responsibilities in case of an emergency;
(k) arrangements for medical treatment and assistance;
(l) procedures to ensure the effective communication between the emergency response coordinator and all persons at the workplace;
(m) procedures for the appointment of an adequate number of senior level first aid officers and fire wardens;
(n) a description of the medical equipment required, including first aid boxes and defibrillators;
(o) the location of safety equipment;
(p) the emergency evacuation arrangements;
(q) the location of assembly areas;
(r) response procedures to bomb threats;
(s) an explanation of how simulated emergency exercises will be undertaken;
(t) procedures on how a post-emergency review will be conducted;
an emergency call out procedure and contact list, which includes the contact details of:

(i) police, fire, local hospitals and ambulance services;
(ii) any government agencies with emergency management functions in the area that the emergency plan applies;
(iii) organisations that may be required to assist in implementing the emergency plan;
(iv) Office of Environment and Heritage;
(v) local councils;
(vi) owners of neighbouring properties that affect or are affected by the Contractor's Activities; and
(vii) Authorities and

the number of “Nurse Call” stations on high risk projects and the requirement to provide SMS or pager notification systems.

If the Contractor's Activities involves work in or adjacent to the Rail Corridor and the rail environment the Emergency and Crisis Management Plan must also include:

(a) a rail traffic plan, which covers:
   (i) emergency arrangements for hazards associated with local rail operations including rail freight which includes any Hazardous Materials;
   (ii) communications procedures; and
   (iii) Site control and coordination; and

(b) an emergency contact list which includes the contact details of:
   (i) train control and signalling locations;
   (ii) adjoining railway managers;
   (iii) transport authorities (rail and road);
   (iv) owners of neighbouring properties affected by rail activities; and
   (v) recovery procedures for restoration of railway operations.

The Contractor must comply with the requirements for emergency plans contained in the Rail Safety Law and WHS Legislation.

The Contractor must test the Emergency and Crisis Management Plan at least annually and request the Principal's Representative to attend and be included in the test.

Where indicated in TSR S1 Annexure A, the Contractor must run quarterly emergency drills which shall include an annual fire drill and other fitting scenarios building to the biennial event involving RailCorp, Ambulance, Police, Fire, energy providers and other responders to the potential crisis situations of the particular project.

The emergency drills shall not be limited to safety related scenarios but encompass environmental, community and other risks identified in the Emergency and Crisis Management Plan.
7 Implementation

7.1 Accountability, Competence, Induction and Training

7.1.1 ACCOUNTABILITY

The Contractor must provide clear safety accountabilities for all employees and Subcontractors undertaking the Contractor’s Activities. These safety accountabilities must address the requirements of the NSW Government OH&S Management System Guidelines. The Contractor must:

(a) provide specific accountabilities for management and other personnel who are responsible for and qualified to deal with safety matters (ranging from the Chief Executive (or equivalent) to foreman/team leaders);
(b) clearly identify all positions associated with the undertaking of the Contractor’s Activities; and
(c) develop and document position descriptions for all persons involved in undertaking Contractor’s Activities beyond those of management level listed above.

7.1.2 COMPETENCIES

The Contractor must have processes in place to ensure that competencies for all tasks have been identified and that personnel are assessed against these competencies prior to commencing work. Competencies in this regard refer to an individual’s skills, education, attitude and behaviour. The Contractor must produce matrices that identify the competence requirements for each position and the personnel filling those positions.

All persons undertaking work at the Site must be trained and have completed general construction induction training as required by the WHS Legislation.

Copies of all licences must be available for issue to the Principal’s Representative upon request prior to the commencement of the Contractor’s Activities. This includes:

(a) licences required under WHS Legislation for relevant Contractor’s Activities;
(b) trade licences (e.g. electricians, plumbers etc);
(c) certificates of competency for first aid and senior first aid officers; and
(d) certification of design staff to carry out Rail Safety Work in accordance with the Rail Safety Act 2008 (NSW).

7.1.3 INDUCTIONS

The Contractor must have processes in place to ensure that all persons undertaking the Contractor’s Activities (including Subcontractors) undergo site induction training prior to commencing work on the Site, and on any other areas where the Contractor’s Activities are undertaken. This includes an obligation to develop the content of and deliver:

(a) Project specific induction(s);
(b) Site specific induction(s);
(c) Task specific induction(s);
(d) Daily pre-start/pre-work briefing(s); and
(e) Visitor specific induction(s).

Project Specific Induction

The Contractor must develop a project specific safety induction and induction program for personnel undertaking the Contractor's Activities.

The project specific induction must include:

(f) a description of the Works and any Temporary Works;
(g) a description of the major Contractor's Activities;
(h) a description of major hazards and their controls for the Site and the Contractor's Activities;
(i) the Contractor's commitment to and implementation of the safety, quality, environmental and community requirements of the Contract and all relevant Law;
(j) the Principal's expectation in achieving the Beyond Zero safety culture and how this culture will be achieved by the Contractor;
(k) emergency and evacuation plans (including the role of wardens and assembly points);
(l) how to obtain first aid and the role of first aid officers;
(m) safety occurrence, near miss and hazardous reporting and investigations;
(n) fatigue management;
(o) the drug and alcohol policy on Site;
(p) the duties of people using or operating (as the case may be) Construction Plant on Site; and
(q) policies relating to personal protective equipment (including its use, maintenance and replacement).

Where appropriate, the project specific induction may also include a Site specific induction (see below).

Site Specific Induction

Site specific inductions must cover the requirements of site-specific safety plans. Each site specific induction must also cover hazards which are likely to be encountered and the control measures that have been developed to mitigate such hazards. Each site specific induction must include:

(r) Rail Safety, if the Contractor's Activities involves work in or adjacent to the Rail Corridor and the rail environment;
(s) communication and consultation processes;
(t) issue resolution processes;
emergency procedures, including evacuation procedures;
Site security procedures;
implementation of safety, quality, environmental and community procedures; and
any other issues relevant to the Site.
Site specific inductions must be regularly reviewed and updated by the Contractor so as to ensure
that they remain relevant to the work being undertaken on the Site.

Daily pre-start/pre-work briefing(s)
Daily pre-start/pre-work briefings (also known as “tool-box talks”) must be carried out and may
cover the following:
the progress of the project and specific work area;
any changes to work areas expected during the day (e.g. change in planning);
incidents and breaches;
complaints received that are applicable to the Site-specific activity and measures
implemented to address or minimise those complaints;
Construction Plant and traffic changes; and
introductions for new employees.

Task Specific Induction
The Contractor must develop and implement task specific inductions for all activities:
deemed as high risk under WHS Legislation; and
under Rail Safety Law, if the Contractor’s Activities involves work in or adjacent to the
Rail Corridor and the rail environment.

Visitor Specific Induction
The Contractor must develop a visitor specific induction program. The Contractor must ensure
that all visitors who are invited or brought onto the Site (including suppliers) undergo the visitor
specific induction when attending site. The visitor specific induction must include:
site safety rules;
personal protective equipment (PPE) that must be worn;
site-specific hazards and controls to be adhered to on site;
safe access, egress and amenities;
emergency evacuation procedures; and
safety occurrence, near miss and hazard reporting.
The Contractor must keep records of all visitor specific inductions which are undertaken and
ensure that visitors to the Site are at all times accompanied by a person who has undergone
either a site specific induction or a project specific induction.
The Contractor must keep records of all inductions given.
The Contractor must ensure that any visitors required to enter the Rail Corridor complete a Rail Industry Safety Induction (RISI).

**Keeping of Records**

Details of all inductions received by the Contractor's employees, its subcontractors and consultants engaged in the carrying out work on the Site and visitors invited or brought onto the Site must be recorded on each individual's "Project WHS Induction Card" or "Visitors Safety Induction Pass" as the case maybe.

**7.1.4 TRAINING AND RECORDS**

The Contractor must undertake a training needs analysis for each worker on site to identify any gaps and any additional training required to undertake the Contractor's Activities.

The Contractor must ensure that training records which document which personnel have satisfactorily completed training modules are maintained. The training records must also document certification and qualifications relevant to each person that has undertaken training. The training records must be kept up to date at all times.

**7.2 Alcohol and Other Drugs**

A policy of zero tolerance of alcohol and illegal drug use applies to projects carried out for or controlled or managed by the Principal. Alcohol and illegal drugs are not permitted on the Site or on premises controlled or managed by the Principal.

The Contractor must develop policies and procedures to ensure this policy of zero tolerance of alcohol and illegal drugs is adhered to at all times. The Contractor must develop and implement effective drug and alcohol testing procedures. If the Contractor's Activities involves work in or adjacent to the Rail Corridor and the rail environment, these procedures must be in line with the Rail Safety (Drug and Alcohol Testing) Regulation 2008 (NSW) and the testing regime must include prestart testing prior to Track Possessions.

The Contractor must ensure that all persons associated with the Contractor's Activities (including the Contractor's workers, visitors, Subcontractor workers and agents) are aware of their obligations to comply with all alcohol and drug requirements.

The Principal's Alcohol and Other Drugs Standard (60-ST-010), prohibits any persons affected by alcohol or drugs from working on any projects carried out for or 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 Principal will determine its policy in relation to prescription and over-the-counter drugs on a case by case basis.

A breach of the Principal's Alcohol and Other Drugs Standard will occur if:

(a) drug levels are at or above the cut off level stipulated by the Australian Standard AS/NZS 4308:2008 Procedures for Specimen Collection and the detection and quantitation of drugs of abuse in urine; or

(b) alcohol levels are at or above 0.02 grams (which is considered an above zero reading by the Principal) of alcohol in 210 litres of breath or 100 millilitres of blood.
Anyone that tests positive to alcohol or drugs or who refuses a drug or alcohol test must be removed from the Site immediately, and the Principal's Representative must be notified immediately.

The Contractor must take disciplinary action against a person associated with the Contractor's Activities who breaches the Principal's Alcohol and Other Drugs Policy or who refuses a drug or alcohol test. The nature of the disciplinary action to be taken must be agreed upon by the Principal's Representative.

A person associated with the Contractor's Activities who breaches the Principal's Alcohol and Other Drugs Standard may have their Rail Industry Safety Induction (RISI) card or any other competency cards removed. Rail Safety Workers who test positive to drug or alcohol tests or who tamper with, or refuse any test, may be subject to prosecution.

The Principal may have any person who is suspected of being under the influence of alcohol or drugs while carrying out the Contractor's Activities:

(c) excluded from carrying out the Contractor's Activities;
(d) tested by an authorised testing officer, medical practitioner or the New South Wales Police Service; and/or
(e) removed from the Site.

All of the Contractor's workers and workers of Subcontractors may be subject to drug and alcohol testing by an authorised testing officer of the Principal at any time whilst carrying out the Contractor's Activities (including within the Contractor's site amenities or facilities). Such testing will be in accordance with the Principal's Alcohol and Other Drugs Standard and, if the Contractor's Activities involves work in or adjacent to the Rail Corridor and the rail environment, the Rail Safety (Drug and Alcohol Testing) Regulation 2008 (NSW).

The Contractor must ensure that all such people co-operate with any person administering investigation and testing procedures on the Principal's behalf.

The Principal will determine a test program and will select work locations for random testing. The locations will be selected for random testing in order to achieve an annual test rate of at least 25% of Rail Safety Workers and 5% of non-Rail Safety Workers. Due consideration will be given to the hours of work and the number of persons at each work location. The test program schedule of Site visits will remain confidential and may be audited by officers of the Independent Transport Safety Regulator or "ITSR". ITSR officers may also conduct random testing.

The Contractor must provide the Principal's authorised testing officers with access to the Site and Subcontractor's places of work to conduct the alcohol and other drug testing as required. The methods of administering and processing alcohol and other drug tests will be in accordance with AS/NZS 4308:2008 and, if the Contractor's Activities involves work in or adjacent to the Rail Corridor and the rail environment, the Rail Safety (Drug and Alcohol Testing) Regulation 2008 (NSW).

In the event of an Incident, the Contractor's personnel on Site who were involved with or witnessed the Incident, may not leave the Site until they have undertaken drug and alcohol testing, and the Principal's Representative has agreed to their departure from the Site. If individuals involved in or witness to the Incident are taken by ambulance to hospital, then the drug and alcohol testing will be undertaken at the hospital.
Each individual that signs on at the commencement of each shift will be declaring themselves to be free of drugs and alcohol.

7.3 Fatigue Management

The Contractor must prepare, document and implement a fatigue management program for all employees and Subcontractors that is in accordance with WHS Legislation.

7.4 Personal Protective Equipment (PPE)

The Contractor must assess the personal protective equipment or "PPE" required to undertake the Contractor's Activities. The Contractor must:

(a) undertake PPE compliance monitoring;
(b) consider PPE replacement within its procedures;
(c) develop and implement a PPE testing and inspection regime (e.g. testing and inspection of breathing apparatus, safety harness); and
(d) provide the necessary instruction and training to ensure that the PPE effectively protects against the risk for which it is provided.

The Contractor must ensure that each person, including Subcontractors, carrying out work at the Site:

(e) is provided with, and wears at all times, PPE that satisfies the following criteria:
   (i) high visibility orange clothing (including high-visibility vest or shirt, and wet weather/winter upper body apparel) which:
      • is compliant with section 8 (Class D/N Garments) of AS 4602 High Visibility Safety Garments and the label clearly states that the clothing meets this standard and any others standards applicable;
      • is approved by the Principal;
      • all high visibility vests/shirts must cover the entire torso above the waist. The front of the garment must extend at least 100mm below waist level, and the back must cover the buttocks (to ensure visibility when bending forward in a stooped position); and
      • has flame-retarding properties where the activities to be undertaken involve working on or near hot work;
   (ii) lace up, ankle length, steel capped safety footwear (elastic sided boots are not permitted on site) compliant with AS/NZS 2210 Occupational Protective Footwear;
   (iii) a safety helmet compliant with AS/NZS 1801 Occupational Protective Helmets and appropriate to the environment in which they work or enter;
   (iv) safety eye wear and/or face protection which is appropriate to the task and environment. Eyewear must be compliant to AS 1337 Eye Protectors for Industrial Applications;
(v) sleeved shirts (shoulders covered) with collars
(vi) long trousers; and
(vii) full-fingered gloves (the type of glove is to be determined by the task and/or by a risk assessment);

(f) is provided with and wears, where required by the nature of the task and the environment, all necessary and appropriate PPE including:

(i) respiratory protection (including particulate respirator, gas filter respirator and supplied air respirator) appropriate to the environment to the task;
(ii) hearing protection appropriate to the environment to the task; and
(iii) sun protection; and

(g) is provided with storage and hanging locations to allow PPE to be aired and dried.

Red, green or yellow PPE or clothing is not permitted to be worn at any time on the Site or in the Rail Corridor.

Where the minimum PPE does not create the most suitable control for the task a risk assessment must be undertaken and defined controls incorporated into the SWMS (e.g. the use of steel capped gumboots during concrete pours).

7.5 Communication and Consultation

The Contractor must develop communication and consultation procedures for the Contractor's Activities. These procedures must cover the requirements of the SafeWork Australia Work Health and Safety Consultation, Co-operation and Co-ordination Code of Practice.

The Contractor’s communication and consultation procedures must include:

(a) a process for managing WHS consultation and WHS issue resolution at the Site;
(b) a process for consulting, cooperating and coordinating activities with all other persons who have a work health and safety duty in relation to the same matter;
(c) strategies to communicate the Contractor's issue resolution and safety breach management procedures, to all persons undertaking the Contractor's Activities;
(d) identification of statutory mandated notices that are to be displayed on Site, including locations of these notices;
(e) strategies to communicate safety and emergency protocols and procedures to all persons undertaking the Contractor’s Activities; and
(f) processes on how pre-start meetings (including tool-box talks and toolbox meetings) will be organised, managed implemented, and closed out including:

(i) the contents and timing of meetings. This must take into consideration the fact that there may be multiple shifts;
(ii) management of shift handover meetings (taking into account if there is more than one shift); and
(iii) a schedule of safety meetings that will be held (e.g. site, project, senior management).

7.6 Safety Change Management

7.6.1 SAFETY CHANGE MANAGEMENT
The Contractor must make all endeavours to not modify the organisational structure of its project team as agreed with the Principal as at the Commencement Date, unless such modification has been requested or authorised by the Principal's Representative. This includes changes to:

(a) roles and responsibilities;
(b) reporting and communication lines; and
(c) individuals nominated for each position.

Any changes to the Contractor's organisational structure must be approved by the Principal's Representative. A request must be made to the Principal's Representative for a change to be made to its organisational structure at least 10 Business Days prior to the date the change is proposed to occur.

The Contractor must develop and implement procedures for the management, control, authorisation and recording of changes to the safety procedures on the Site. This includes:

(d) changes to safe working requirements;
(e) changes as a result of amendments to relevant Law;
(f) changes in technology; and
(g) procedures and processes that are covered under safety change management.

The Contractor must not bring any plant or equipment to Site that has been modified in any way unless approval has been received from the respective regulatory or certification Authority.

If the Contractor's Activities involves work in or adjacent to the Rail Corridor and the rail environment, the Contractor must develop and implement change management procedures in line with AS 4292.1 (2006) Railway Safety Management.

7.7 Safety Related Procurement

The Contractor must develop and implement a procedure addressing work health and safety issues in procurement related processes that complies with the NSW Government OH&S Management System Guidelines and the NSW Government Code of Practice for Procurement.

7.7.1 SUBCONTRACTORS
The Contractor must ensure that:

(a) Subcontractors have work health and safety management systems in place that comply with all relevant requirements of the Contract;
the Project Safety Management Plan identifies all risks associated with the work of each Subcontractor and any mitigation measures that are necessary; and

each Subcontractor complies with the Contractor's Project Safety Management Plan and submits SWMS to the Contractor before work commences for all high risk work.

The Contractor must review and approve all SWMS submitted by Subcontractors prior to submission to the Principal's Representative for review in accordance with TSR S1 Clause 4.6.

7.7.2 PRODUCTS AND MATERIALS

The Contractor must ensure that upon its arrival at the Site, all product and materials are quarantined within a designated lay down area, where they can be checked against relevant specifications. Products and materials must remain in quarantine area until they are either:

(a) signed-in as compliant; or

(b) assessed as non-compliant and tagged with an "OUT OF SERVICE" tag for removal from the Site.

7.8 Permits and Licences

The Contractor must obtain all permits and licences which are required to undertake the Contractor's Activities and to deliver the Works. The Contractor must develop and implement procedures and processes that enable it to identify all required permits and licences (including design permits that are required for undertaking the Contractor's Activities), and detail how and when they will be procured. The Principal may direct the Contractor to obtain additional permits and licences to ensure that the TfNSW Rail Safety Accreditation is not compromised. Copies of the permits and licences must be available for issue to the Principal's Representative upon request prior to the commencement of the Contractor's Activities that relate to the licence or permit.

Without limiting the above requirement, the following activities are not permitted to commence without a permit/licence:

(a) hot work including underground locations or outdoor locations;

(b) work within "no-go zones" and "Accredited Persons Zone" associated with overhead power lines or other electrical equipment including RailCorp's electrical infrastructure;

(c) work in a confined space (including tunnels);

(d) work on public roads;

(e) demolition involving mobile cranes, a wrecking ball or the pulling down of a building with ropes or chains;

(f) asbestos removal; and

(g) excavation work.

The Contractor must ensure that all applicable staff sign on and off the relevant permit when required to work in areas to which the permit applies.
All licences and permits must be available for inspection by the Principal's Representative at all times.

7.9 Site Amenities

The Contractor must provide amenities as defined for Type 1 Major Construction workplaces as detailed in the WorkCover (NSW) Code of Practice Amenities for Construction Work, with the exception of the use of open closet portable toilets. All toilet facilities on Site must be either connected to the main sewer system or have self-contained freshwater flushing. No open closet portable toilets are to be used. All portable toilet facilities shall contain hand washing facilities. The amenities must be kept in clean and tidy condition.

The Contractor must provide cold water for drinking in hot weather, especially for employees working away from site amenities.

7.10 Security

The Contractor is responsible for the care and security of the Contractor's Activities. The Contractor must develop and implement a procedure to manage the security of the Contractor's Activities and of the Site in accordance with the General Conditions and the WHS Legislation.

The Contractor's security procedure must be developed by a person with the relevant knowledge and experience. The Contractor must:

(a) document the security measures and audits to be implemented;
(b) document the security responsibilities and accountabilities for all position descriptions;
(c) manage access to the Site including access points, perimeter security and rail gates within the Site, lay down areas, Construction Plant, and any site buildings and its contents. All gates must be either locked or attended at all times;
(d) have methods of securing all areas and things on the site including Construction Plant, excavations and water ponds;
(e) institute a register with respect to keys to the Site and keys for Construction Plant;
(f) ensure that the security management of the Works reflects the National Counter Terrorism Alert Levels;
(g) develop procedures to communicate and respond to changes in the National Counter Terrorism Alert Levels;
(h) 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; and
(i) document the procedures for the management of graffiti on Site.

The Principal's Representative may require the Contractor to undertake security drills, exercises and audits at any location involved with the delivery of the Works.

The Principal's Representative may direct the Contractor to undertake police criminal record checks for any of the Contractor's and Subcontractor's employees. The Contractor must develop procedures on how such checks will be undertaken and how the results will be treated in
confidence. The Principal’s Representative must be promptly notified of the results of these checks if any offences have been recorded. If in the Principal’s Representative opinion the results of the checks pose a potential risk to the Works or any person on Site, the relevant person must be immediately removed from Site and prevented from continuing to undertake any Contractor’s Activities.

The Contractor must ensure that the overall presentation of the Site is neat and clean, with uniform hoardings and fencing that is safe and that clearly and neatly delineates the Site from the public and adjoining areas.

7.11 Lighting

The Contractor must provide and maintain efficient and effective lighting for the Contractor’s Activities as necessary and to ensure the safety of any person involved in the Contractor’s Activities and any member of the public. Lighting must be positioned and screened so that it does not distract the vision of train drivers and car drivers.

Lighting in close proximity to the Rail Corridor must be white in colour. Any lighting must be selected and installed in a manner to avoid glare or other impact to adjacent properties, wherever feasible.

7.12 Walking Surfaces

The Contractor must provide walking surfaces on Site that meet the following requirements:

(a) walkway surfaces must be evenly formed with no trip hazards. Concrete or tarmac finished paths with formed edges are preferred;

(b) walkways made from fill must be adequately compacted to give a plane surface with falls designed to shed water and avoid puddling and deterioration;

(c) the minimum clear width of a footpath is to be 1.2m to allow two persons to walk side-by-side or to pass safely where possible;

(d) boards used on scaffold platforms or bridges must be free from warp, large knots or damage and secured in position. Where there is any overlap, a fillet piece should be installed to prevent tripping. Refer AS 1577 Scaffold Planks and AS/NZS 4576 Guidelines for Scaffolding;

(e) scaffold ramps with a gradient of 1 in 4 or greater must be fitted with stepping lathes or non slip surfaces with handrails;

(f) formed steps within a walkway are to be constructed with a rise of approximately 190mm and 300mm treads with adequate handrails; and

(g) nosings to temporary steps, with a non-slip surface are to be provided. These must be highlighted in a contrasting colour in poorly lit areas.
7.13 Walkway Barriers

The Contractor must provide walkway barriers that meet the following requirements:

(a) walkways are to be delineated where possible with solid rails or surfaces (such as scaffold tubes, proprietary fencing panels, jersey barriers or hoarding);

(b) where scaffolding is used as a walkway barrier:
   (i) mid-rails are to be provided to discourage persons from leaving the route at unauthorised points;
   (ii) transom couplers are to be used in preference to right angle couplers; and
   (iii) where the use of transom couplers is not practical and right angle couplers are used, right angle couplers are to have protective coverings;

(c) due to high maintenance demands and untidy appearance, the use of road pins and netting is discouraged except when forming very transient access routes;

(d) in large floor areas, designated access routes are to be identified by painted lines or hatching and clearly identified as walkways;

(e) sufficient numbers of formal access points are to be provided and sign posted to allow entry and exit; and

(f) walkway barriers must be kept clean, safe and in a state of repair.

7.14 Secondary Accesses

The Contractor must determine the requirements for secondary access on the Site. This must include the type of secondary access to be used, in what situation it will be used, and the responsibility for approval of its use. The determination must be based on a hazard identification, a risk assessment and the relevant standards.

Secondary access must be provided by the Contractor that meets the following requirements:

(a) access down batters or into excavations must be planned. Where stair towers cannot be used, steps must be formed in the bank in concrete, or scaffold or proprietary components may be used; and

(b) mats (walkway) are to be provided for walking across re-bar to gain access to the work location. The walkway should be constructed by providing a 1.2 metre wide platform from scaffold boards or staging. Fillet pieces are to be installed to prevent trip hazards from lapping of the boards.

7.15 Restricted Areas

The Contractor must identify and designate restricted areas. The Contractor must develop and implement a procedure to determine how access to restricted areas will be prevented, the type of barriers to be used, the signage that will be displayed and the persons who are authorised to enter.
Restricted areas must be clearly signed and delineated with physical barriers. The Contractor must obtain prior approval from the Principal’s Representative or, in the case of an Alliance contract, the Alliance Manager, for the following:

(a) use of barrier tape as a form of delineation; and
(b) use of star pickets.

Where existing access and escape routes are likely to be affected by restricted areas, alternative safe access and escape routes must be established prior to the relevant work commencing.

7.16 Signage

In addition to the requirements of clause 308 of the Work Health and Safety Regulation 2011, the Contractor must provide signage that is securely fixed and clearly visible to define formal access routes. All signage must be cleaned, maintained and remain visible at all times. Mandatory signage is to be displayed at all entry gates and must contain, as a minimum:

(a) PPE requirements for the Site;
(b) relevant advisory and danger signs related to the Contractor’s Activities on the Site;
(c) notification of any Hazardous Materials; and
(d) emergency contact numbers.

7.17 Construction Plant

The Contractor must ensure that all Construction Plant is properly operated and maintained so as to ensure that it poses no risk to the health and safety of any person on the Site or on land adjoining the Site.

The Contractor must:

(a) develop and maintain as current, a Site assets register;
(b) ensure that daily or shift inspections (as applicable) of Construction Plant are carried out and record the results;
(c) identify potential hazards associated with the use of Construction Plant, and assess and control the risks associated with the use of such Construction Plant;
(d) make available for issue to the Principal’s Representative upon request copies of all risk assessments undertaken on mobile and stationary Construction Plant prior to its arrival on Site;
(e) make available for issue to the Principal’s Representative upon request copies of the inspection record and testing regime for lifting devices, prior to their arrival on Site;
(f) have copies of any licences and permits relevant to the operation of Construction Plant, including as required by WorkCover NSW at the Site, and provide these to the Principal’s Representative on request;
(g) maintain the Construction Plant in accordance with the manufacturer’s standards;
(h) ensure that all Construction Plant including site vehicles/trucks entering the Site have:
(i) proper functioning orange flashing lights;
(ii) non-tonal beepers; and
(iii) reversing cameras (a camera positioned so as to eliminate blind spots of the vehicles/plant);

(i) ensure that inspections, servicing, cleaning and maintenance on Construction Plant is performed by appropriately qualified and competent persons;
(j) maintain records of inspections, service, cleaning and/or maintenance of Construction Plant, and provide these to the Principal's Representative on request;
(k) provide its employees with adequate information about the safe use of Construction Plant;
(l) ensure that prior to any crane lifts, a lift study is undertaken and the relevant calculation carried out;
(m) remove from operation any piece of Construction Plant when so directed by WorkCover NSW or by the Principal's Representative;
(n) ensure that no person enters any areas where mobile Construction Plant is operating unless authorised by the Principal's Representative or, in the case of an Alliance contract, the Alliance Manager, to do so; and
(o) ensure that where spotters are used for all reversing movements, these spotters are dedicated solely to performing the task of spotting and are not permitted to perform other tasks (such as labouring and cleaning). Spotters that are required to ensure that safe approach distances from electrical equipment are maintained at all times, must be trained in electrical safety to at least the same level as the operator of the item of mobile plant.

If the Contractor's Activities involves work in or adjacent to the Rail Corridor and the rail environment, the Contractor must:

(p) implement the use of slew restrictors where the plant is capable of slewing within three (3) metres of the Danger Zone; and
(q) ensure that all Construction Plant complies with RailCorp's Safety Requirements for Plant.

The Principal may inspect any Construction Plant that the Contractor brings on to the Site for compliance with the requirements of the Contract.

7.18 Traffic Management on Site
The Contractor must develop and implement a site traffic management plan for the use of mobile Construction Plant. All persons involved in the Contractor's Activities at the Site must be briefed on the site traffic management plan and the plan must be posted in relevant prominent positions around the Site. The plan must include:

(a) marked walkways;
(b) speed limits;
(c) directions of travel;
(d) reversing arrangements, including the mandatory requirement for spotters to be used for all reversing movements;
(e) parking locations;
(f) signage and markings;
(g) the location of Hazardous Materials; and
(h) the location of fire prevention/fighting equipment.

7.19 Excavation and Earthworks

The Contractor must develop and implement a procedure to manage excavation and earthworks. This procedure must include:
(a) a signing on/off process for access to excavations;
(b) inspection regimes;
(c) time frame of permits; and
(d) a system for managing associated breaches related to excavation and earthworks.

The Contractor must manage risks to health and safety associated with excavation in accordance with the requirements of the WHS Legislation.

All work involving excavation or earthworks which can be categorised by the following criteria must be in accordance with either an excavation work plan or SWMS:
(e) to a depth greater than 1.5 metres;
(f) within five (5) metres of underground services; or
(g) within three (3) metres of overhead wires,

In addition, excavation can only take place after a detailed site survey of underground services has been conducted. The excavation must comply with TfNSW Working Near Utilities Standard (4TP-ST-107), TfNSW Procedure for Management of Working Near Utilities (4TP-PR-159) and TfNSW Guide to Management of Work Near Utilities (4TP-SD-043).

Any permits required with respect to excavation or earthwork must be current and must be signed and approved by the Contractor prior to the commencement of any excavation or earthwork.

All plans and service searches must be validated by potholing (or other non-destructive methods which are approved by the Principal's Representative) before mechanical excavation can begin.

All excavations deeper than 1.5 metres or where there is a risk of either structural damage or collapse, must be shored, battered, or benched unless written advice is provided from a geotechnical engineer stating that all sides of the trench are safe from collapse. Shoring systems must be designed and certified by a Competent Person. Trenches are to be assessed by a Competent Person before any person enters. In addition, the work area is to be secured from unauthorised access (including inadvertent entry).
Appropriate controls must be implemented to prevent persons falling into excavations proposed to be deeper than 1.5 metres. The controls must be inspected by a Competent Person at intervals determined by the risk assessment.

Ladder access must be provided for all excavations deeper than one (1) metre. The ladder must be set at 1:4 angle, must be secured and must protrude at least one (1) metre above the top of the excavation.

For advice and information to locate external underground services contact Dial Before You Dig (DBYD) on 1100 or www.dialbeforeyoudig.com.au

7.20 Management of the risk of falls

The Contractor must develop and implement a procedure for working where there is a risk of a fall by a person from one level to another. So far as reasonably practicable any work that involves the risk of a fall is to be carried out on the ground or on a solid construction.

Ladders

The Contractor must discourage the use of ladders on Site. Where ladders are to be used the Contractor must undertake a risk assessment and hazard identification to implement adequate control measures.

Scaffolding

Scaffolding must only be erected by appropriately trained and competent staff in accordance with AS/NZS 1576 Scaffolding. Any scaffold over four (4) metres must be erected by a WorkCover NSW licensed scaffolder. All scaffolds must be erected in accordance with either engineer designed drawings or the scaffolding manufacturer's instructions (whichever is appropriate). The Contractor must implement a Scafftagg system requiring scaffolds to be inspected and certified as safe for use by a Competent Person before use, and every 30 days.

7.21 Working Adjacent to or Over Water

The Contractor must develop and implement a procedure in relation to how work adjacent to or over water will be managed.

The procedure must implement the following requirements:

(a) any work over water requires a minimum of two people;
(b) if there is a risk of drowning, workers must wear either a buoyancy aid or use a fall arrest system; and
(c) rescue equipment (either a boat or a lifebuoy) must be provided and workers that cannot swim must be discouraged from working near a deep water body.

This procedure must also cover the development of stable grounds for the placement of lifting devices (e.g. cranes or excavation equipment) if this is not already covered by the management procedures of Construction Plant in such areas.
7.22 Working on or near Public Roads

The Contractor must develop a Traffic Management Plan as set out in TSR Prelude which will include a procedure for working on or near public roads. This procedure must include methods of dust suppression.

Where a Traffic Control Plan is nominated in TSR Prelude, the following safety requirements apply:

(a) traffic controllers must hold the RMS Blue Card (Stop / Slow bat) and must wear high visibility clothing;
(b) traffic controllers are not permitted to operate on roads where the speed limit is 60 km/hr or higher;
(c) traffic controllers and workers on the road must be provided with protection from the risk of being struck by out-of-control vehicles (e.g. safety barriers, shadow vehicles, distance from moving traffic);
(d) signs must be installed in accordance with the TCP and must be periodically checked throughout the work;
(e) there must be sufficient traffic controllers to allow them to rotate and have breaks; and
(f) traffic controllers working at night must carry illuminated wands to direct traffic and wear clothing with reflective stripes in accordance with Section 8 of AS 4602 High Visibility Safety Garments.

7.23 Electrical Safety

The Contractor must develop and implement a procedure in relation to electrical safety which accords with all relevant standards and Laws. This procedure must include the following requirements:

(a) all portable electrical equipment must be tested and tagged on a monthly basis. Items that are not tagged or are out-of-date are not to be used and must be removed from the Site;
(b) earth leakage devices/residual-current devices (RCDs) must be provided and used for all portable electrical equipment including welders;
(c) cords and leads must be elevated out of the way using insulated stands and hooks. All electrical equipment must be visually inspected for damage before use;
(d) work on low voltage electrical installations must only be done by a qualified electrician. Live work is not permitted. Isolated circuits are to be treated as live until they have been proven dead by testing;
(e) the use of tag out/lock out permit system and of isolation locks, wherever possible;
(f) safe approach distances (SADs) to electrical equipment must be maintained at all times in accordance with the WorkCover (NSW) Code of Practice - Work Near Overhead Power Lines. These SADs may be increased for certain activities such as using scaffolding and use of plant. For people that have been specifically trained, the SAD’s may be reduced. Metal ladders must not be used; and
(g) if there is any chance that SADs cannot be maintained at all times, then the work must not commence, or must stop immediately if it has already commenced.

7.24 First Aid, Defibrillators and Return to Work

The Contractor must develop and implement a procedure for managing the provision of first aid for the Contractor's Activities in accordance with the WHS Legislation.

The Contractor must provide Nurse Call stations or similar systems on high risk projects to ensure a quick response to an incident requiring first aid assistance. The number of stations will be determined in accordance with the Emergency and Crisis Management Plan which will also determine whether SMS and pager notifications are to be incorporated.

The Contractor must provide a defibrillator (and suitable training in its use for its senior first aiders), at each major first aid location, and must ensure that the Project Safety Management Plan addresses the provision of such defibrillators and training. Persons trained in the use of the defibrillator must be on Site at all times.

The Contractor must identify and nominate a local medical practitioner equipped to provide appropriate return to work advice based on the Contractor's own return to work programs.

8 Additional Safety Requirements for Working In and Adjacent to the Rail Corridor and Rail Environment

8.1 General

This TSR S1 Clause 8 describes additional Project Safety Management Plan requirements for any Contractor's Activities in and adjacent to the Rail Corridor and rail environment.

8.2 Accountability, Competence and Inductions

8.2.1 ACCOUNTABILITY

The Contractor must develop position descriptions for personnel carrying out the Contractor's Activities. The Contractor must provide the Principal's Representative with a list of position descriptions which identifies each position description as either:

(a) the position is deemed not to be a Rail Safety Worker in accordance with the Rail Safety Act; or

(b) the position is deemed to be a Rail Safety Worker in accordance with the Rail Safety Act.

The Principal's Representative may alter the list of Rail Safety Workers as nominated by the Contractor.
8.2.2 COMPETENCIES

The Contractor must consult with the Principal’s Representative to obtain a determination as to when the Rail Industry Safety Induction (RISI) Identification Card is required for the Contractor’s Activities. See TSR 51 Clause 8.4 for further information.

The Contractor must ensure that no person undertakes Rail Safety Work unless they have been issued with a certificate of competency under the Rail Safety Act. The Contractor shall develop and implement a "Competence Management System" or "CMS" that is supported by Goal Structured Notation. The CMS forms part of a Safety Management System and shall provide procedures to assure that each of the following issues are sufficiently managed:

(a) identification of Rail Safety Work and Workers;
(b) selection and recruitment of Rail Safety Workers;
(c) competence assessment criteria and methods;
(d) assessment of suppliers and contractors;
(e) register of Rail Safety Workers and certification;
(f) Rail Safety training and development;
(g) verification and audit of the Competence Management System;
(h) review and feedback of safety performance data and information;
(i) record keeping;
(j) management of sub-standard performance;
(k) safety validation of organisational change;
(l) maintaining subject matter expert’s competence; and
(m) fitness of Rail Safety Workers.

The Contractor must keep an up-to-date register of persons who hold certificates of competency for Rail Safety Workers. This register must include the issue date and expiry date of the certificate and comply with all regulatory requirements and Laws. The Contractor must submit the register to the Principal’s Representative on a monthly basis or at other intervals as indicated by the Principal’s Representative.

The Contractor must ensure that only personnel (including visitors) that hold a RISI card issued by RailCorp are permitted to enter the Rail Corridor.

8.3 Rail Safety

The Contractor must develop and implement processes to ensure that:

(a) any person supervising the Contractor’s Activities on or in the vicinity of the Rail Corridor has the qualifications required by RailCorp and the Principal;
(b) any person setting up safe work arrangements for Contractor's Activities on or in the vicinity of the rail environment has the qualifications required by RailCorp and the Principal;
all Contractor's Activities must be assessed for safety including its potential to intrude on the Danger Zone;

without limiting the obligations under sub-paragraphs (a) and (b), any person who is to perform Rail Safety Work holds appropriate certificates of competency as required under the Rail Safety Act;

SWMS are prepared for any activities on or adjacent to the Rail Corridor that have the potential to impact on the rail infrastructure, train operations, station platforms or RailCorp facilities. The Contractor must process the review of all SWMS associated with or adjacent to the Rail Corridor through the WAA (using the TfNSW Work Activity Advice (4TP-FI-105)) and the meetings held pursuant to the Interface Agreement;

WAAs and associated SWMS are submitted to the Principal's Representative for review in accordance with the requirements set out in the Contract at least six (6) weeks prior to the commencement of the activity and addresses the requirements of the Interface Agreement;

a WAA includes a risk assessment performed by a Competent Person. This risk assessment is in addition to the risk assessments undertaken as part of the production of SWMS. A WAA risk assessment is to ensure that all safety hazards have been identified and that the safety risks associated with the combination of the proposed SWMS are effectively managed;

compliance is achieved with the Principal's Rail Safeworking Arrangements, based upon (without limitation) the following principles:

(i) people must have a safe place immediately available when on track;

(ii) when on track and in the Danger Zone people must be protected;

(iii) people and trains must be separated at all times;

(iv) if trains cannot be separated from people, they must be managed to ensure the safety of people on the track;

(v) a safety assessment must be completed before entering the Danger Zone;

(vi) all relevant information must be provided to people;

(vii) workers must be competent in rail safeworking;

(viii) workers must be warned about the hazards within the Rail Corridor;

(ix) rail traffic must meet technical and operational standards; and

(x) safe routes must be established for all rail traffic;

the Contractor's employees and Subcontractor employees working in or adjacent to the Rail Corridor attend a pre-work safety briefing each day (or more frequently if work practices dictate) with a qualified work supervisor. This briefing must detail the agreed nature of the work, the effect of the work on the rail operations and the methods of safe working that must be employed. Pre-work safety briefings must be in accordance with all RailCorp and Principal requirements;
(j) the Contractor obtains the Principal’s Representative’s approval for the introduction of new or modified rolling stock onto the Site; and

(k) the Contractor obtains the Principal’s Representative’s approval for the introduction of new or modified rolling stock maintenance activities.

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

8.4 Work on Track Methods for Working Safely

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:

<table>
<thead>
<tr>
<th>Site</th>
<th>Specification</th>
<th>Method of Worksite Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Site</td>
<td>A site under construction without any rail traffic movements, or traction power systems being installed.</td>
<td>Nil</td>
</tr>
<tr>
<td>TfNSW Rail Site</td>
<td>A TfNSW managed and controlled rail site which has no interface access with other rail sites or rail systems.</td>
<td>RISI Identification is not required.</td>
</tr>
<tr>
<td></td>
<td>Note:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Should a TfNSW rail site encroach on the Danger Zone of any other adjoining Rail Transport Operator (RTO) rail sites, adjacent line protection must be implemented and managed in accordance with the rules of the adjoining RTO.</td>
<td>If further clarification is required refer to the Principal’s Representative.</td>
</tr>
<tr>
<td></td>
<td>• An access interface is considered removed if points that allow entry and exit to the site are secured and a physical barrier is established at the limits of the TfNSW rail site.</td>
<td>Work within or potential to impact the Danger Zone requires TfNSW’s Local Possession Authority (TLPA).</td>
</tr>
<tr>
<td>Other RTO Rail Sites</td>
<td>A rail site managed and controlled by another accredited RTO.</td>
<td>Other RTO’s Network Rules and Procedures</td>
</tr>
</tbody>
</table>

Before returning infrastructure affected by the Contractor’s Activities back into service, the Contractor must submit to the Principal’s Representative, for review in accordance with the...
requirements set out in the Contract, certification that completed track work is fit for its intended purpose from:

(a) the Contractor’s designers (including relevant Subcontractors carrying out such design); and

(b) persons who hold RailCorp track inspector qualifications of Maintain Track Geometry (00188), Visually Inspect and Monitor Track (00191), and Record and Analyse Track Parameters (00185).

8.5 Swing Arm Plant

The Contractor, in determining whether there is a requirement for the use of restrictors for swing arm plant, must consider the following factors:

(a) the work environment including weather conditions where the work is to be undertaken (e.g. clearances to the overhead wires or Danger Zone);

(b) the topography where the work is to be undertaken (e.g. width of the corridor);

(c) whether the restrictors afford the highest level of protection to make the task safe;

(d) whether an alternative item of plant can be used;

(e) whether the use of restrictors introduce additional hazards to the process;

(f) whether the operator is trained, competent and certified to operate the plant and restrictor (e.g. computer based);

(g) the restrictor type and relevant usability factors (e.g. audio, mechanical, electronic, laser, GPS with laser technology, radius indicators, etc.);

(h) the size of the plant and its potential radius / reach capability;

(i) if the plant is dependant upon hydraulics to lift and navigate the swing arm, whether it is fitted with a hydraulic failure controlled descent device; and

(j) whether the restrictor complies with Australian Standards and designed for the plant that is being used.

In planning for Contractor’s Activities to be undertaken with Construction Plant using restrictors, the Contractor must complete a safety assessment of all of the Contractor’s Activities to be performed within the Rail Corridor, including for the potential to encroach into the Danger Zone.

The Contractor’s Site supervisor and plant operator, and the Protection Officer must be involved in any safety assessment which involves swing arm plant. The safety assessment must consider the following:

(k) risks have been identified, documented and controlled where plant is utilised out of the Danger Zone;

(l) whether plant used in the work will intrude into the Danger Zone;

(m) the effect of the formation of the railway line and the topographical location on the Contractor’s Activities;

(n) whether the level of noise from equipment and rail traffic will be excessive;
(o) managing risk of plant rolling over;
(p) identification and protection of electrical infrastructure; and
(q) resources required to undertake the Contractor’s Activities safely.

The Contractor’s construction planning process must include the validation of the proposed method of work to be carried out on the day. This validation process must include the completion of a site specific risk assessment and development of a plant working diagram by the Contractor’s site supervisor or construction engineer in conjunction with the project rail safeworking coordinator and any other required project personnel. All potential safety hazards and control measures must be documented in SWMS before work is to commence.

The Contractor’s Site supervisor must conduct a pre-work briefing with all personnel involved, including the Protection Officer, prior to commencing the work. The Site supervisor’s pre-work briefing must include the following items:

(r) description of swing arm plant and equipment being used, including the type of restrictor(s) being used;
(s) 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);
(t) arrangements for the provision of a spotter;
(u) 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 developed for the Contractor’s Activities.

8.6 Use of Rolling Stock, Hi-Rail Vehicles and Work Trains

Rolling stock and rail traffic is not permitted to travel or operate on the Site without the approval of the Principal’s Representative.

The Principal’s Representative may also impose requirements, limitations and constraints on rail traffic travelling or operating on the Site.

To the extent that any part of the Contractor’s Activities requires the use of hi-rail vehicles or work trains, the Contractor must:

(a) 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 Act);
(b) ensure that hi-rail vehicles are duly checked and certified as being fit for their intended use at the start of each shift;
(c) ensure that the utilisation of hi-rail vehicles or work trains is appropriately addressed in the Contractor’s procedures to ensure safe operations, to prevent injury and damage to infrastructure and to ensure that responsibilities are identified and documented;
(d) assess the past record of potential Subcontractors to ensure that they comply with the Rail Safety Law and relevant rail accreditation requirements. The results of these assessments must be made available to the Principal upon request;

(e) set out and carry out regular reviews of the performance of train and hi-rail operators engaged for the undertaking of the Contractor’s Activities (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 upon request; and

(f) only use plant authorised on the rolling stock register.

8.7 Fatigue, Medical and Health Management

For workers carrying out Railway Safety Work the 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 Law and TSR S1 Clause 7.3;

(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 between the 13th and 16th hour;

(iii) includes periods of 11 hours rest away from work;

(iv) restricts the maximum number of work days to 12 work days in 14 consecutive days;

(v) minimises to five consecutive occasions where eight (8) hours are worked at night (i.e. after normal office hours) or four (4) consecutive occasions where 10 hours are worked at night or three (3) consecutive occasions where 12 hours are worked at night without a 48 hour rest break;

(vi) ensures employees receive a minimum of 48 consecutive hours free of work in a 14-day period; and

(vii) 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).
8.8 Safety Related Procurement

The Contractor must, as part of the procurement and management processes for Subcontractors, ensure that:

(a) the Subcontractors have appropriate systems and practices in respect of all Railway Safety Work and that they comply with those systems and practices at all relevant times;

(b) the Subcontractor’s employees are qualified and competent to undertake Railway Safety Work as required by Rail Safety Law; and

(c) the Subcontractor’s employees are trained and inducted on any Site specific Rail Safety procedures.

8.9 Subcontractor management:

The Contractor’s processes for managing subcontractors must ensure that:

(a) subcontractors have appropriate systems and practices in respect of Rail Safety and that they comply with those systems and practices;

(b) subcontractors personnel are qualified to undertake Rail Safety Work as required; and

(c) subcontractor personnel are trained and inducted on site specific Rail Safety procedures.

8.10 Audit and review

8.10.1 RAIL SAFETY ACCREDITATION AUDITS

The Contractor must develop and implement an internal audit program that ensures compliance of its activities and those of its subcontractors with the TfNSW Rail Safety Accreditation requirements and the requirements of the Rail Safety Act 2008 (NSW).

The minimum frequency of audits to be conducted by the Contractor is:

(a) Track Possession work: an audit must be conducted prior to each track possession or closedown period to ensure that all procedures, processes and arrangements required for effective management and completion of the possession are in place;

(b) Competency Assessment: a minimum of 2 audits per year must be conducted of processes in place to assess the competence of the Contractor’s personnel, including subcontractors and their personnel;

(c) Engineering Authority: a minimum of two audits per year of the process for obtaining authority to undertake design tasks and assuring that the design meets all necessary legislative, safety and operating requirements;

(d) Drug and Alcohol Policy: a minimum of one audit per year of the policy and processes for ensuring that personnel involved in Rail Safety Work are drug and alcohol free;

(e) Fatigue Management: a minimum of two audits per year of processes in place for managing and monitoring fatigue in Contractor personnel, including subcontractors and
their personnel. Additional audits may be required where there are major works occurring during weekend track possessions, or close down periods; and

(f) Incident Reporting: a minimum of two audits per year of Incident reporting processes to determine if they satisfy the requirements of the Rail Safety Act 2008 (NSW) and the Work Health and Safety Act 2011 (NSW) and other relevant Laws.

8.10.2 AUDITS BY TFNSW

The Principal's Representative reserves the right to conduct audits of the Contractor's Activities covering the above issues from time to time during the Contract. The Contractor must make available all resources including documentation and personnel to support these audits. The audits will be carried out as collaborative audits involving the Contractor's personnel and technical specialists.

8.11 Security

The Principal will develop, in conjunction with the Contractor, a "Security Management Plan" in accordance with Section 16 of the Rail Safety Act. The Contractor is responsible for ensuring that the Contractor's Activities, including its obligations as set out in TSR S1 Clause 7.10, are compliant with the Security Management Plan.

9 Safety Incident Investigation, Reporting and Recording

9.1 General

The Contractor must notify the Principal's Representative of any Incident in accordance with TSR C1, and must develop processes which address these requirements. The Contractor must:

(a) document the processes for communication in relation to safety issues and emergencies;
(b) maintain a current list of relevant names, telephone numbers (all-hours), email addresses and facsimile numbers; and
(c) document details of emergency services.

9.2 Investigation of Occurrences

The Contractor must develop and implement a procedure for the investigation of all Incidents, including WHS and Rail Safety occurrences, with the purpose of ascertaining the cause of the Incident and ensuring that appropriate actions are taken to prevent recurrence. This procedure must reflect two types of investigation; a minor investigation and a major investigation. Minor investigations can be used if the severity or potential severity is low/medium. Major investigations are normally used:

(a) if the severity or potential severity is high;
(b) for any serious injury or occurrence (WorkCover defined); or
(c) for any notifiable occurrence excluding alcohol & drug failures (ITSR defined).
The procedure must describe the investigation methods to be used, the timing of investigations, the various levels of investigations to be undertaken and the composition of the various investigation teams, and the training that must be undertaken by the investigation team. The incident investigation undertaken must be free from all bias.

For each incident and subsequent investigation, the Principal's Representative will notify the Contractor whether the investigation of an incident is a major investigation or a minor investigation.

The Contractor must undertake an investigation into all near-miss or actual incidents and implement controls to prevent recurrence. The Principal's Representative may direct the Contractor to undertake an investigation into an incident or potential incident. The Principal's Representative may also participate in any investigation being undertaken by the Contractor or initiate its own investigation. If the Principal's Representative initiates its own investigation the Contractor must provide the Principal's Representative with all assistance reasonably required for the purposes of the investigation.

The Contractor must use the following forms to record the results of investigations:

(d) TfNSW Minor Investigation Report (90-FT-001)
(e) TfNSW Major Investigation Report Template (90-FT-178)

Both minor and major investigations must be submitted to the Principal's Representative in draft form for approval before finalizing.

Minor investigations must be provided to the Principal's Representative within 28 days of the occurrence of the relevant incident. Major investigations must be provided to the principal within 42 days of the occurrence of the relevant incident.

The Contractor must progressively record the results of all investigations that it undertakes. The Contractor must provide the Principal's Representative with an interim investigation report within 24 hours of a request from the Principal's Representative. The Contractor must attach any necessary statutory notifications forms, statutory notices and notice of any fines received to this interim report.

9.3 Reporting of Incidents

The Contractor must notify the Principal's Representative of any incidents in accordance with TSR C1 on Safety and Environmental Incident Report (90-FT-002) and transmit this electronically to the Principal's Representative within the given timeframes set out in TSR C1.

All WHS Notifiable Incidents and Rail Safety Notifiable Occurrences must be reported by telephone to the Principal's Representative and in the case of an Alliance contract the Alliance Manager, within two (2) hours of the Contractor becoming aware of the occurrence.

For WorkCover defined Notifiable Incidents the person with management or control of a workplace must take measures to ensure so far as reasonably practicable, that the site where the incident occurred is not disturbed until an inspector arrives at the site or any earlier time that an inspector directs.

For WHS Notifiable Incidents refer to sections 35, 36 and 37 of the WHS Act 2011. WorkCover should be telephoned immediately on 13 10 50, in order that WorkCover may instigate its own
investigations. Reporting can also be by electronic communication (using a mode of electronic communication approved by WorkCover) providing the information requested by WorkCover. The Contractor must also provide the Principal's Representative, and in the case of an Alliance contract the Alliance Manager, with a copy of this electronic communication notice within two (2) hours of the Incident occurring.

Where any type of notice, infringement or fine by WorkCover NSW or the Independent Transport Safety Regulator (ITSR) has been issued to the Contractor whilst undertaking the Contractor's Activities, the Contractor must immediately notify the Principal's Representative and in the case of an Alliance contract the Alliance Manager, and must provide the Principal's Representative with a copy of the notice, infringement or fine within two (2) hours of receiving it.

10 Safety Inspections, Monitoring and Reporting

10.1 Safety Inspections

The Contractor must develop and implement a system for conducting regular safety inspections which complies with the requirements outlined in the NSW Government OH&S Management System Guidelines for inspection and testing. The Contractor may incorporate these inspection requirements into the ITPs developed by the Contractor in accordance with TSR Q1. The Contractor must provide the Principal's Representative with a Site inspection regime and must participate in collaborative safety inspections with the Principal's Representative.

The Contractor must:

(a) maintain inspection registers of assets, activities and systems that require formal inspection. These registers are to be made available on Site at all times;
(b) perform and document daily pre-start inspections of all Construction Plant and any rolling stock;
(c) conduct safety inspections at least weekly, or more frequently if the Contractor's Activities warrant. Inspections should also identify hazards associated with the Contractor's Activities;
(d) include in its safety inspections all work undertaken by Subcontractors;
(e) record the results of all safety inspections indicating, as a minimum, the date, the person(s) undertaking the inspection, the items/activities inspected, the findings, actions required, by whom and when;
(f) participate in collaborative safety inspections with the Principal on a monthly basis (or more frequently if required by the Principal's Representative);
(g) record the results of and the parties present at all consultative safety inspections addressing the requirements of parts (c) and (f) above;
(h) record any non-compliances that were discovered during safety inspections and treat these non-compliances in accordance with TSR Q1; and
(i) ensure that appropriate and timely action is taken to eliminate or reduce hazards and non-compliances.
Each non-compliance must be addressed and the party being inspected must be provided with the corrective actions. Corrective actions must detail:

(j) the corrective action required;
(k) priority and date for corrective action close out; and
(l) person accountable for the corrective action.

10.2 Safety Performance Reporting

In the case of an Alliance contract, the safety performance reporting requirements are set out in the Alliance TSR.

For all other contracts, the Contractor must provide monthly safety statistics electronically to the Principal’s Representative, by the first Business Day of the following month, using TfNSW Monthly Safety Statistics and Incident Summary (90-FT-096). It must include but not be limited to:

(a) number of employees on site and hours worked;
(b) lag indicators;
(c) proactive safety indicators for Contractor’s Activities (the Contractor must develop 5 project specific lead indicators and obtain the Principal’s Representative’s concurrence on the lead indicators which are to be reported monthly);
(d) list of proactive activities undertaken; and
(e) list of inspections, audits and number of corrective actions open and closed.

If required, the Contractor must also provide data into an electronic system as determined by the Principal’s Representative.

10.2.1 NON-CONFORMANCES AND CORRECTIVE ACTIONS

The Contractor must develop and implement procedures to manage non-conformances and corrective actions in accordance with TSR Q1. The Contractor must also identify the consultative process that has been applied and how the non-conformance will be treated.
ANNEXURE A – Additional Project Requirements
Additional Project Requirements

A1 Project Safety Leadership Team
The Principal will establish a Project Safety Leadership Team. (Yes / No) Yes  
Mentioned in clause 4.2
("Yes" applies if not filled in)

A2 Emergency and Crisis Management Drills
The Contractor must run quarterly Emergency and Crisis Management drills. (Yes / No) Yes  
Mentioned in clause 6
("Yes" applies if not filled in)
ANNEXURE B – List of Reference Documents
List of Reference Documents

General
AS 4602 High Visibility Safety Garments
AS/NZS 1576 Scaffolding
AS 1577 Scaffold Planks
AS/NZS 4576 Guidelines for Scaffolding
AS/NZS 2210 Occupational Protective Footwear
AS/NZS 1801 Occupational Protective Helmets
AS 1337 Eye Protectors for Industrial Applications
NSW Government Code of Practice for Procurement
NSW Government Guidelines for Auditing Project OHS Management Plans
NSW Government Occupational Health and Safety Management System Guidelines
Work Health and Safety Act 2011 (NSW)
State Records Act
TfNSW Alcohol and Other Drugs Standard (60-ST-010)
TfNSW Working Near Utilities (4TP-ST-107)
TfNSW Guide to Management of Work Near Utilities (4TP-SD-043)
TfNSW Safety and Environmental Incident Report (9TP-FT-002)
TfNSW Monthly Safety Statistics and Incident Summary (90-FT-096).
TfNSW Minor Investigation Report (90-FT-001)
TfNSW Major Investigation Report Template (90-FT-178)
TfNSW Procedure for Management of Working Near Utilities (4TP-PR-159)
TfNSW Safety Policy
TfNSW Work Activity Advice (90-FT-105)
WorkCover (NSW) Code of Practice Amenities for Construction Work
WorkCover (NSW) Code of Practice Occupational Health and Safety Consultation
WorkCover (NSW) Code of Practice Work Near Overhead Power Lines
WorkCover (NSW) Code of Practice Work Near Underground Services
Additional References for Working In and Adjacent to the Rail Corridor and Rail Environment

AS 4292 Railway Safety Management

AS/NZS ISO 31000:2009 - Risk Management National Standard for the Health Assessments of Rail Safety Worker

National Standard for Health Assessments of Rail Safety Workers

RailCorp Project Safety Agreement (PSA) (SMS-06-FM-1362)

Rail Safety (Drug and Alcohol Testing) Regulation 2008 (NSW)

Rail Safety Act

Rail Safety Regulation 2008 (NSW)

RailCorp RailSafe Network Procedures

RailCorp RailSafe Network Rules

Railway applications. The specification and demonstration of reliability, availability, maintainability and safety (RAMS) (EN50126)

TfNSW Generic Rail Safety Risk Register (30-SD-038)

TfNSW Safety Risk Management (90-PR-126)
TfNSW Standard Requirements

TSR E1 – Environmental Management

Standard Applicable to: Transport Projects Division

TPD Quality Management System

Status: Draft
Division: Transport Projects
Version: 1.0
Date of issue: 31 January 2012
Effective date: 31 January 2012
Review date: 31 January 2013
Document owner: Technical Director Commercial
Security classification: Open Access

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1 Introduction

1.1 General

TSR E1 describes the environmental requirements and processes which the Contractor must comply with under the Contract. The Contractor must ensure that the requirements of the NSW Government Environmental Management System Guidelines and AS/NZS ISO 14001:2004 are implemented as they apply to the Contractor’s Activities.

Where the design of any part of the Works is part of the Contractor’s Activities, additional environmental requirements appropriate to design processes are detailed in TSR T1.

The environmental requirements contained within TSR E1 are in addition to any requirements prescribed in the Project Definition Documents or any Authority Approval.

1.2 User instructions

For a contract other than an Alliance contract, the definitions used in this TSR E1 have the meanings as set out in the Contract and in TSR Prelude.

For an Alliance contract, the definitions used in this TSR E1 have the meanings as set out in the Project Alliance Agreement and in TSR Prelude as well as below. Where a defined term below conflicts with a defined term in TSR Prelude the defined term below will apply:

“Authority Approval” means “Approval”.

“Contract” means “Agreement”.

“Contractor” means “Alliance”.

“Contractor’s Activities” means “Alliance Activities”.


“Contractor’s Project Manager” means “Alliance Manager”.

“Environmental Representative” means “Environmental Management Representative”.

“Principal” means “TfNSW”.

“Principal’s Representative” means “TfNSW Representative”.

“Project Definition Documents” means any or all of the following:

(a) The Project Brief;
(b) The Business Requirements Specification (BRS);
(c) The System Requirements Specification (SRS); and
(d) Any other Project Definition Phase documents provided by the Principal.

“Site” means “Project Site” or “Alliance Site” as applicable.

“Temporary Works” means “Alliance Temporary Works”.

“Works” means “Alliance Works”.

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2 Environmental Representative

The Principal may engage an Environmental Representative or "ER" for the Project. The Contractor must work with the ER and provide the ER with access to the Site and all environmental records including those listed in TSR E1 Annexure C.

Any findings by the ER from site inspections or document reviews must be acted upon within the timeframes reasonably required by the ER. The Contractor must provide written notification to the Principal's Representative that the findings of the ER have been closed out within the timeframes specified in the Contractor's Environmental Management Plan or in the inspection reports.

3 Contractor’s Environmental Management System

The Contractor's "Environmental Management System" or "EMS" must remain accredited under AS/NZS ISO 14001:2004 whilst the Contractor's Activities are undertaken. In the case of an Alliance contract, the Alliance may elect to adopt the accredited EMS from TfNSW, the accredited EMS from one of the NOPs or develop its own EMS. Notwithstanding, the EMS utilised must be consistent with the TfNSW EMS. For the avoidance of doubt, Subcontractors are required to work under the Contractor's EMS, unless otherwise specified.

The Contractor must, in collaboration with the Principal’s Representative, complete a gap analysis in order to demonstrate consistency between the Contractor's EMS and the environmental requirements of the Contract. The gap analysis must be undertaken within 40 days of the date of the Contract unless otherwise agreed by the Principal's Representative. The Contractor's Environmental Management Plan must address all findings of the gap analysis.

The Contractor must include a matrix or equivalent on how the Contractor's EMS and Construction Environmental Management Plan address the requirements of TSR E1, the Authority Approvals and any other relevant Contract requirements.

4 Construction Environmental Management Plan

4.1 Scope

The Contractor must prepare, implement, maintain and comply with a project, site-specific "Construction Environmental Management Plan" or "CEMP" that covers all the work necessary for the Contractor to fulfill its environmental obligations under the Contract. The Contractor must prepare, implement, maintain and comply with multiple CEMPs if the Site is comprised of areas in more than one location, unless otherwise agreed with TfNSW.

The CEMP(s) must comply with the NSW Government Environmental Management System Guidelines and be consistent with the requirements of the Contract. The CEMP(s) should be consistent with all Authority Approvals, Environmental Assessment (EA) or Environmental Impact Statement (EIS) or Review of Environmental Factors (REF), Conditions of Approval and Statement of Commitments and must address all aspects and impacts identified in the Environmental Risk Assessment (TSR E1 Clause 7.1).

The Contractor must regularly review and update the CEMP(s) and implement additional environmental protection measures if the protection measures in the CEMP(s) are not adequate in achieving compliance with the environmental obligations under the Contract.
Each CEMP must:

(a) indicate the names, responsibilities and authorities of the site management personnel for implementing the CEMP, monitoring its effectiveness, environmental input to design, rectifying any environmental deficiencies and keeping environmental records;

(b) nominate a member of the site management team who is the authorised contact person for the Principal and the OEH for all environment related issues;

(c) identify the Contractor’s Environmental Manager who reports to the Contractor’s senior management, is suitably qualified and experienced, and has defined authority and responsibility to ensure that the requirements of the CEMP are implemented and maintained; and

(d) detail the working relationship between the designated Contractor’s Environmental Manager and other persons involved with the implementation of the CEMP including commercial, quality, program/planning, design, safety, community, construction etc.

4.2 Submission

The CEMP(s) must be submitted to the Principal’s Representative in accordance with the requirements set out in the Contract including TSR Prelude.

HOLD POINT: Commencement of any construction work (which includes Temporary Works).

SUBMISSION DETAILS: Submit the CEMP(s) documentation addressing the Contract requirements in accordance with the time frames specified in the Contract including TSR Prelude.

RELEASE OF HOLD POINT: The Principal will consider the CEMP(s) documentation and determine whether the submission adequately addresses the requirements of the Contract prior to authorising release of the Hold Point.

5 Policy

The CEMP(s) must include a Contract-specific environmental policy which commits the Contractor to meet the environmental requirements of the Contract. In the case of an Alliance, the policy must be signed by all members of the Alliance Leadership Team. For all other contracts the policy must be signed by the Contractor’s Chief Executive Officer or a person with suitable delegated authority. The policy must complement the TfNSW Environmental Policy (1TP-PO-002) and support the achievement of sustainability requirements of TSR E1 Annexure A and the Project Definition Documents.

The policy must be explained to and understood by the employees of the Contractor and Subcontractors.

6 Planning Approvals

For a contract other than an Alliance contract, the Contractor must fulfil all the conditions and requirements of the Planning Approval ("Conditions of Approval" and "Statement of Commitments") except to the extent that the Contract allocates responsibilities to the Principal.
Where the Contractor is responsible and a submission to an approval Authority is required, the Contractor must provide TfNSW with a submission for review in accordance with the requirements set out in the Contract prior to issue to the relevant approval Authority. TfNSW will provide comments to the Contractor within the timeframe specified in the Contract. The Contractor is to address any comments and provide a final submission to TfNSW with a request to forward to the relevant Authority. It should be noted that TfNSW reserves the right to provide additional comments to the Contractor should the previous comments not be adequately addressed or additional information has been provided. The Contractor is not to communicate (phone, mail, email etc) directly with approval Authorities unless written consent is provided by TfNSW, and a communications protocol has been established.

In the case of an Alliance contract, the Alliance must fulfil the requirements set out in the PAA and TSR E1 Annexure A with respect to the following:

(a) Identifying and obtaining all necessary Approvals; and
(b) fulfilling all the conditions and requirements of the Planning Approval (Conditions of Approval and Statement of Commitments).

For all contracts, the following requirements also apply:

(c) Consistency checklists, in the format provided by TfNSW unless otherwise agreed, are to be completed by the Contractor and provided to TfNSW for approval in circumstances where project works are likely to deviate from the approved project.
(d) Should the Works be found not to be consistent with the approved project, the Contractor may request TfNSW seek a project modification. Under such circumstances, it is the Contractor's responsibility to provide the necessary reports, studies and final submission to TfNSW to justify the modification.
(e) Compliance with Planning Approvals will be tracked through PECOMS (refer Section 12).

7 System planning

7.1 Environmental Risk Assessment

The Contractor must undertake a comprehensive and site-specific "Environmental Risk Assessment" in conjunction with the Contractor's construction personnel and the Environmental Representative, prior to the commencement of early works (including pre-construction works). Note that a staged risk assessment may be considered on agreement with TfNSW. This risk assessment must identify the environmental aspects and actual and potential environmental impacts of the Contractor's Activities and the control measures that are required to be implemented in order to provide environmental protection in accordance with the requirements of the Contract. With respect to the Site (and where the Site is at more than one location, for each part of the Site), this risk assessment is to include:

(a) noise and vibration;
(b) air quality, including dust;
(c) soil and water management;
(d) waste management;
(e) contamination;
(f) Aboriginal and non-Aboriginal heritage;
(g) flora and fauna; and
(h) traffic and pedestrian management.

7.2 TfNSW Sustainability requirements

The Contractor must:
(a) comply with the TfNSW Sustainable Design Guidelines (7TP-ST-114) as applicable to the Contractor's Activities;
(b) comply with the Project-Specific Sustainability Requirements listed in TSR E1 Annexure A;
(c) submit a completed checklist provided in electronic format (supplied by TfNSW) confirming compliance with the requirements of the TfNSW Sustainable Design Guidelines (7TP-ST-114) and/or the Project Specific Sustainability Requirements at the intervals listed in TSR E1 Annexure A;
(d) ensure that the Contractor's Activities are consistent with the principles of Ecologically Sustainable Development as outlined in the Protection of the Environment Administration Act 1991;
(e) prepare a greenhouse gas inventory report in accordance with TfNSW's Greenhouse Gas Inventory Guide for Construction Projects at SDR stage of the detailed design (refer to TSR T1) calculating the total estimated carbon footprint for all construction activity associated with the Works. The inventory report must nominate all the initiatives that will be implemented to reduce the Project's overall carbon footprint (examples include the selection of construction materials and the creation of suitable offsets). Where the Project Definition Documents specify that renewable energy initiatives are required as part of this Contract, the estimated savings in greenhouse gas emissions during construction may be nominated as an appropriate initiative. The information provided in the inventory report will be used to inform the development of a Climate Change Impact Assessment Report to be produced by the Principal. The inventory report must be updated at CDR stage of the detailed design and upon Final Completion; and
(f) implement a greenhouse gas reporting regime tracking Scope 1, 2 & 3 emissions generated during construction in accordance with Australian Standard 14064.1-2006 and the Greenhouse Gas Protocol at the commencement of construction and submitted to the Principal on a six (6) monthly basis.

7.3 Environmentally Sensitive Areas

The Contractor must ensure that the details and locations of environmentally sensitive areas are clearly identified and specific protection measures communicated through:
(a) use of Environmental Control Maps (TSR E1 Clause 7.4);
(b) use of Environmental Design Constraints Map (TSR E1 Clause 7.5);
(c) site inductions and site-specific training (e.g. toolbox talks); and
More regular and rigorous monitoring and inspection may be required to ensure that environmental protection measures are effective for environmentally sensitive areas. Environmentally sensitive area monitoring must be included in a project-wide environment monitoring program.

7.4 Environmental Control Maps

The Contractor must develop, implement and maintain "Environmental Control Map(s)" or "ECM(s)" in accordance with TfNSW Guide to Environmental Control Maps (3TP-SD-015). An ECM is a document prepared to assist in the planning and delivery of construction works. An ECM must be specific to a work area and/or work activity. The ECM is to identify the location of physical environmental protection measures, work method controls and monitoring requirements to minimise the impact of construction activities on the environment and community in and adjoining a specific work area or work activity.

Each ECM must be prepared as a map, suitably enlarged (e.g. A0 size) for mounting on the wall of a site office. Training in the interpretation and use of the ECM by all site personnel must be included in site inductions.

The Contractor must submit to the ER draft copies of the ECMs for review and approval prior to the implementation of the ECM.

The Contractor must regularly review and update the ECMs to incorporate works progression and changing site characteristics and implement additional environmental protection measures if the protection measures in the ECMs are not adequate in achieving compliance with the environmental obligations under the Contract.

7.5 Environmental Design Constraints Map

The Contractor must develop an "Environmental Design Constraints Map(s)" or "EDCM(s)" in accordance with TfNSW Guide to Environmental Design Constraints Map (4TP-SD-018) clauses 1, 2 and 3.

The Contractor must submit to the ER draft copies of the Environmental Design Constraints Maps for review and approval prior to the implementation of the Environmental Design Constraints Maps.

The Contractor must regularly review and update the EDCMs to incorporate works progression and changing site characteristics and implement additional environmental protection measures if the protection measures in the EDCMs are not adequate in achieving compliance with the environmental obligations under the Contract.

8 Implementation

8.1 Resources and Responsibilities

The Contractor must provide sufficient resources on-site and off-site to ensure effective implementation of the CEMP(s).
The Contractor's Environmental Manager is to be based on site and be present during all inspections undertaken by the ER.

8.2 **Environmental Requirements as Part of Site Inductions**

The Contractor must ensure its employees and the employees of Subcontractors engaged in carrying out the Contractor's Activities on the Site are inducted and trained in the environmental requirements of the Contract to achieve a level of awareness and competence appropriate to their assigned activities.

The Contract-specific environmental policy and ECM(s) must form part of the site induction.

The environmental requirements of the induction must include training of relevant persons in the efficient use of plant and materials to minimise all potential environmental impacts including noise, air pollution, water pollution, waste, contamination and hours of work and any other medium to high aspects identified by the risk assessment.

Any person who has not been inducted must not work on the Site.

8.3 **Competence, Training and Awareness**

The CEMP(s) must include a site-specific training program (e.g. toolbox talks). The site-specific training is to cover all relevant environmental issues and must include direction on the proper implementation and maintenance of erosion and sedimentation controls, out-of-hours works, sensitive receivers and environmental sensitive areas/aspects.

The CEMP(s) must include a training plan (or cross reference to a separate training plan) that describes the minimum level of training, experience and qualifications required for employees of the Contractor and Subcontractors, scheduled dates for training and procedures for training.

The Contractor must establish and maintain a register of environmental training carried out including dates, names of people who have completed the training and details of the trainer.

8.4 **Notification of Incidents**

All environmental incidents and non-compliances must be reported to the Principal's Representative in accordance with Environmental Incident Classification and Reporting procedure (9TP-PR-105).

8.5 **Emergency Planning and Response**

In respect to emergency planning and response the Contractor must comply with AS/NZS ISO 14001:2004 (specifically Clause 4.4.7) and the relevant parts of TSR S1 and TSR C1. A program of environmental incident simulation drills should be prepared, with an environmental scenario drill to be run at least annually. The environmental scenario drill may be undertaken in conjunction with the requirements to test the Site Emergency and Crisis Management Plan as set out in TSR S1.

Each CEMP must also include the following details:

(a) a list of emergency response personnel with contact details and a 24 hour contact number;
8.6 Subcontractor Requirements

The Contractor must comply with the requirements of TSR Q1 for the engagement of Subcontractors.

The Contractor must:

(a) include environmental management requirements and conditions consistent with the Contract in the planning, selection and management of Subcontractors;

(b) ensure Subcontractors are advised in writing of the relevant Planning Approval conditions or requirements and, if relevant to the Works, the EPL conditions and any other applicable Authority requirements prior to commencing any work;

(c) undertake a review of Subcontractors' documentation to verify compliance with the requirements of the Contractor's Activities to be subcontracted and ensure that the documentation complies with the CEMP(s); and

(d) undertake appropriate monitoring of each Subcontractor's environmental protection measures to ensure that the specified environmental protection requirements are effectively implemented and maintained.

8.7 Out-of-Hours Work

The standard construction hours for the Project are as set out in the Project Approval and the EPL (if applicable) for the works or in the General Conditions.

The Contractor is responsible for ensuring that any changes to the working hours comply with all relevant Authority Approvals and requirements of an EPL (if applicable).

The Contractor must include in the CEMP(s) a procedure for notifying the Principal, the community, OEH (if this is a requirement), and all relevant Authorities in advance of any proposed additional hours of work.

The Contractor is to comply with and incorporate the requirements of the TfNSW Construction Noise Strategy (7TP-ST-157) and TfNSW Out-of-Hours Assessment (3TP-PR-065) in the Contractor’s procedure, and the applicable Out-of-Hours Work Application Form (9TP-FT-079 or 9TP-FT-080) is to be used.
The Contractor must also develop and maintain an Out-of-Hours Work Application register.

8.8 Dust and Air Management

The Contractor must take all reasonable steps to minimise dust and air pollution arising from the Contractor’s Activities. Mitigation measures must be implemented and may include, but are not limited to:

(a) ensuring that all loads entering or leaving the Site are covered;
(b) ensuring that adequate truck and equipment washing facilities are in place;
(c) ceasing works when conditions are excessively dusty until dust suppression can be adequately carried out;
(d) maintaining vegetation as long as possible prior to clearing;
(e) revegetating as soon as possible after or, where possible, during works, including use of interim sterile cover crops; and
(f) regular watering of substrates and temporary access roads.

The preferred mitigation measures must be documented in the CEMP.

8.9 Water, Erosion and Sediment Management

The Contractor must supply, install and maintain adequate stormwater and runoff controls in accordance with “The Blue Book” (Managing Urban Stormwater: Soils and Construction 2004 - 4th Edition (Landcom/Department of Housing)), which may include:

(a) appropriate erosion controls;
(b) appropriate sediment controls;
(c) appropriate water management controls; and
(d) strict containment of washed-down concrete trucks and pumps.

Proposed mitigation measures must be implemented and documented in the CEMP. The Contractor must undertake daily inspections to verify the adequacy of its environmental control measures, document these inspections and retain a record at the Site.

The Contractor’s Project Manager and Environmental Manager must attend a half-day training session undertaken by the Principal’s Representative associated with water, erosion and sediment management.

The Contractor must include in the CEMP a procedure for water discharge and reuse. The procedure must be consistent with TfNSW Water Discharge and Reuse Guideline (PE-ST-146).

8.10 Aboriginal and Non-Aboriginal Heritage Management

Any identified Aboriginal or non-Aboriginal heritage/archaeological items on the Site and the requirements to mitigate any construction impacts to them are described in TSR E1 Annexure A.

If previously unidentified Aboriginal or non-Aboriginal heritage/archaeological items are uncovered during the Contractor’s Activities, the Contractor must immediately cease all works in the vicinity of the find and advise the Principal’s Representative of the find. The Contractor must erect a
fence/barrier around the area if the Contractor proposes to continue the construction of any other works on the Site. Contractor’s Activities within the fenced/barricaded area defining the find must not re-commence until clearance has been received from the Principal’s Representative.

8.11 Flora and Fauna

Trees and vegetation within the Site area which may be removed are described in TSR E1 Annexure A.

Prior to any clearing, trimming, cutting, pruning or removal of any vegetation, the Contractor is to appropriately mark all vegetation proposed for removal and retention (respectively) in accordance with TSR E1 Annexure A. Clarification is to be sought from the Principal’s Representative regarding the removal/retention status of any unmarked residual vegetation not identified in TSR E1 Annexure A prior to any removal of such unmarked residual vegetation.

Where required, the Contractor must protect any vegetation and trees to be retained in accordance with measures set out in the CEMP. Trees in close proximity to the Contractor’s Activities must be protected with timber post and wire, or other sturdy protective measure.

In the event of physical damage to any tree to be retained, the Contractor must promptly engage the services of a qualified arborist to inspect the damage and recommend a progressive course of action to be taken by the Contractor to rectify the damage.

If the Contractor considers it necessary to trim, cut, prune or remove any vegetation which does not have planning approval for removal shown or is listed as being retained, the Contractor must obtain written approval from the Principal’s Representative prior to carrying out the work using TfNSW Application for Removal or Trimming of Vegetation (9TP-FT-078).

8.12 Storage and Use of Hazardous Materials

Construction hazard and risk issues associated with the use and storage of hazardous materials must be addressed in the CEMP and be consistent with TfNSW’s Chemical Storage and Spill Response Guidelines (9TP-SD-066). These measures must include:

(a) recognition and compliance with applicable Australian/ISO Standards, and relevant guidelines issued by OEH.

(b) the storage of hazardous materials, and refuelling/maintenance of Construction Plant and equipment to be undertaken in clearly marked designated areas that are designed to contain spills and leaks;

(c) spill kits, appropriate for the type and volume of hazardous materials stored or in use, to be readily available and accessible to construction workers. Kits to be kept at hazardous materials storage locations, in site compounds and on specific construction vehicles. Where a spill to a watercourse is identified as a risk, spill kits to be kept in close proximity to potential discharge points;

(d) all hazardous materials spills and leaks to be reported to the Principal’s Representative and actions to be immediately taken to remedy spills and leaks; and

(e) training in the use of spill kits to be given to all personnel involved in the storage, distribution or use of hazardous materials.
8.13 Construction Noise Strategy

The Contractor must ensure that its programming, planning, work methods, equipment and processes comply with the noise and vibration requirements specified in the Authority Approvals and Section 3 of TfNSW Construction Noise Strategy ("CNS").

The Contractor must predict and monitor the construction noise and vibration impacts of the Contractor's Activities in accordance with the CNS and any requirements of the Planning Approval and the EPL (if applicable). In the event that these impacts are predicted to exceed the noise or vibration objectives defined in Section 5.2 of the CNS, then the Contractor must design and implement mitigation measures in accordance with Section 5 of the CNS.

8.14 Waste Management Reduction and Purchasing

Wastes created during the Works must be managed in accordance with all applicable law. Measures to be implemented by the Contractor must include:

(a) management of wastes during construction in accordance with the NSW Government's Waste Reduction and Purchasing Policy (WRAPP);

(b) application of the waste minimisation hierarchy principles of avoid/reduce/re-use/recycle/dispose;

(c) disposal of any waste material that is unable to be re-used, re-processed or recycled at a facility approved to receive that type of waste;

(d) procedures for classifying waste in accordance with OEH's Waste Classification Guidelines July 2009;

(e) procedures for the recovery of resources from waste where this is beneficial and does not harm the environment or human health, in accordance with the 'resource recovery exemptions' under clause 51 of the Protection of the Environment Operations (Waste) Regulation 2005;

(f) installation of segregated bins for recyclable materials and provision for material to be reused or recycled wherever possible;

(g) the disposal of chemical, fuel and lubricant containers and solid and liquid wastes in accordance with applicable OEH guidelines; and

(h) reporting biannually, in the first two weeks of July and of January for the proceeding 6 month period (i.e. January to June and July to December respectively) to the Principal's Representative on the amount of material generated, the amount recycled and the amount purchased with recycled content as part of the Project using the format and tables contained in Part C and Part D of the NSW Government Waste Reduction and Purchasing Policy (WRAPP) - Guidelines to Assist Reporting WRAPP progress for 2005-2007.

The CEMP must document proposed waste management measures and must demonstrate the manner in which a target of at least 90% of construction waste generated during site preparation and construction of projects must be diverted from landfill and either recovered, recycled or reused. In addition, the CEMP must address how 100% of usable spoil material will be recovered for beneficial use.
8.15 Complaints

Complaints received by the Contractor from any source in relation to environmental issues are to be handled, recorded and reported in accordance with TSR C1 and the project EPL (if applicable). The Contractor must also notify the Principal's Representative (or nominated delegate) and the ER of any environmental complaints received.

8.16 Pre-Construction Minor Works Approval

Using the TfNSW form Pre-Construction Minor Works Approval (9TP-FT-202) the Contractor must submit the details of any pre-construction works to the Principal’s Representative for review and approval at least 10 Business Days prior to the commencement of such works. All supporting documentation must be attached and pre-construction activities must comply with the requirements of the Authority Approval. Pre-construction works may not commence until approval is given by the Principal's Representative.

9 Environmental Inspections, Monitoring and Reporting

The CEMP(s) must document a procedure to verify that the Works are compliant with the requirements of the Contract and all Authority Approvals.

The Contractor must:

(a) include daily surveillance and periodic and planned inspections (both physical and desktop type reviews) to verify the adequacy of controls for all environmental aspects of the Works and document these via inspection records;

(b) include planned internal reviews environmental documents that make up the EMS, e.g. management plans, procedures, forms etc;

(c) include planned reviews of Subcontractor systems and works, including off-site inspections as appropriate;

(d) document ITPs and ITP forms (or equivalent to the satisfaction of the Principal’s Representative) for all inspections and testing required for the Works in accordance with TSR Q1; and

(e) immediately notify the Principal's Representative in writing of any breach or nonconformity as a result of the Contractor’s Activities.

10 Principal Raised Nonconformity, Corrective Action and Preventative Action

The Principal’s Representative may raise a TfNSW Environmental Non-Compliance Report (9TP-FT-101) or TfNSW System Deficiency Notice (9TP-FT-032). Upon issue of a TfNSW Environmental Non-Compliance Report or TfNSW System Deficiency Notice, the Contractor must deal with and close-out the non-compliance or deficiency under its own system. The TfNSW Environmental Non-Compliance Report or TfNSW System Deficiency Notice must be completed by the Contractor and returned to the Principal’s Representative within 24 hours and 48 hours respectively, unless otherwise agreed with the Principal’s Representative.
The requirements of AS/NZS ISO 9001 and TSR Q1 (clauses relating to control of nonconforming product and improvement) apply to TSR E1 for the identification, management and addressing of environmental nonconformance, corrective action and preventative action.

11 Control of Environmental Records

The Contractor must comply with AS/NZS ISO 14001:2004 Clause 4.5.4 Control of Records.

The Contractor must demonstrate compliance with its contractual environmental obligations through concise and appropriately detailed environmental records that include (without limitation):

(a) details of qualifications of personnel;
(b) design review records (where applicable);
(c) monitoring and inspection reports;
(d) induction and training records;
(e) reports of environmental issues, incidents and complaints and action taken to rectify these;
(f) internal and external audit reports;
(g) evidence of action taken as a result of a recommendation from such meetings;
(h) records of subcontractors monitoring their own activities;
(i) records of the Contractor monitoring the subcontracted activities;
(j) non-conformance and corrective action records; and
(k) risk management records.

The Contractor must retain all environmental records for a period of no less than 5 years from the Date of Completion.

The Contractor must provide the Principal’s Representative with copies of the environmental records stated at TSR E1 Annexure C. For those records not required to be stored on-site, they must be forwarded to the Principal’s Representative within 3 Business Days of the request.

12 Planning and Environmental Compliance Monitoring System (PECOMS)

The Planning and Environmental Compliance Monitoring System (PECOMS), is the system developed and used by the Principal to monitor compliance with the conditions of all licences, permits and approvals of its projects.

Where nominated in TSR E1 Annexure A, the Contractor is required to use PECOMS to undertake self-regulation to confirm that project activities are compliant with the Authority Approval, OEH Licence and the conditions of any other approvals. Where nominated in TSR E1 Annexure A, the Contractor must implement a PECOMS reporting structure in addition to any other reporting requirements for the Contract and follow the applicable parts of TfNSW Guide to Compliance Monitoring and Reporting Using PECOMS Procedure (9TP-SD-012).
ANNEXURE A – Additional Project Requirements
Additional Project Requirements

A1 Planning and Environmental Compliance System (PECOMS)

<table>
<thead>
<tr>
<th>Applies?</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>TSR E1 Clause 12</td>
</tr>
</tbody>
</table>

Implement and utilise a PECOMS reporting structure in addition to any other reporting requirements (Note: “Yes” applies if “Applies?” is left blank)

A2 Project-Specific Sustainability Requirements (TSR E1 Clause 7.2)

- The Contractor must submit to the Principal’s Representative for review in accordance with the requirements set out in the contract the following:
  - A report which records the quantities of waste diversion (including spoil) and of energy and water consumption arising from the Contractor’s Activities at 3 monthly intervals during construction and with a final report upon Completion;
  - A minimum of 20% of all energy used during construction activities to be sourced from an accredited Greenpower renewable energy supplier.
  - Make sure that construction is being undertaken in a manner that is considerate to local neighbourhoods, residents, visitors and the environment.
  - Protect sensitive assets (e.g. lifts) from the effects of climate and weather.
  - Use Material Safety Data Sheets (MSDS) to avoid the use of dangerous goods and hazardous materials.
  - Minimise graffiti risks during design, such as: treatment of fencing and other surfaces with anti-graffiti paint or coatings, vegetation cover to deter graffiti or providing designated walls for graffiti.
  - The following requirements as referenced in TSR E1 are not applicable to this contract:
    – Section 7.2 (a) – Sustainable Design Guidelines
    – Section 7.2 (c) – Sustainable Design Guidelines checklist
    – Section 7.2 (e) – Greenhouse gas inventory report
  - For avoidance of doubt, the greenhouse gas reporting regime referenced in Section 7.2 (f) of TSR E1 will require the submission of a report at project completion covering the period since the previous report. (If less than 6 months)
A3 Compliance with the Project-Specific Sustainability Targets (TSR E1 Clause 7.2)

(a) Ensure that at least 90% of construction waste generated during site preparation and construction is diverted from landfill and either recycled or reused.

(b) Ensure that 100% of usable spoil material is reused.

A4 Additional Project-SpecificReporting Requirements

Contractor’s Environmental Management System
Section 3 is not relevant to this contract.

Policy
Section 5 is not relevant to this contract.

Construction Environmental Management Plan (CEMP)
As per Section 4, prepare a CEMP for the project. Also note any additional inclusions as part of the CEMP from REF Condition No. 5 (also refer Annexure B for allocation of responsibility of the REF Conditions).

Noise & Out of Hours Works

Refer to the Construction Noise Strategy (7TP-ST-157). When out of hours works are required, complete an Out-of-Hours Work Application Form (9TP-FT-079) & TCA Out-of-Hours Assessment (3TP-PR-065)

Any audible out of hours works, including possessions, must be approved through the submission of an Out of Hours Application Form which may require the development of a Construction Noise and Vibration Impact Statement by an acoustic consultant. Noisy works should only be carried out outside of normal business hours (i.e. Monday to Friday 0700 to 1800 and Saturday 0800 to 1300) where there is strong justification, reasonable and feasible work practices are applied and community negotiation is potentially carried out.

The Out of Hours application must be submitted to the TCA Environmental Team for approval no later than 10 business days prior to the anticipated commencement date of the works.

PECOMS

PECOMS is to be completed quarterly in accordance with TCA Guide to Compliance Monitoring and Reporting Using PECOMS Procedure (9TP-SD-012)

Environmental Protection Licence (EPL)
Any rail systems works, as defined in the *Protection of the Environment Operations Act 1997*, required for the project will be undertaken in accordance with the RailCorp EPL (No. 12208)

**Environmental Design Constraints Map**
As referenced in Section 7.3 (b) and 7.5 of TSR E1, Environmental Design Constraints Maps are not required for this contract.

**Emergency Planning and Response**
As referenced in Section 8.5 of TSR E1, an annual environmental scenario drill is not required for this contract. Note, environmental incident simulation drills are still required.

**Control of Environmental Records**
As referenced in Section 11 (b) of TSR E1, design review records are not required for this contract.

---

**A5 Aboriginal and Non-Aboriginal Heritage Management (TSR E1 Clause 8.10)**
The Contractor may assume there are no known Aboriginal or non-Aboriginal heritage/archaeological items on the Site.

---

**A6 Vegetation Protection (TSR E1 Clause 8.11)**
For any vegetation removal or trimming, complete the TCA Application for Removal or Trimming of Vegetation (9TP-FT-078)

Four (4) trees are to be removed as identified on drawing numbers CV 0420730 & CV 0420728. Noting 2 trees have already been removed during Stage 1 works. Trees within the construction footprint and site compound to be retained shall be marked and protected appropriately to avoid accidental damage/harm.

A landscape plan is to be developed in conjunction with Lake Macquarie City Council to offset the trees removed.
ANNEXURE B – List of Reference Documents
List of Reference Documents

NSW Government Environmental Management System Guidelines
NSW Government Waste Reduction and Purchasing Policy
Protection of the Environment Administration Act 1991
Protection of the Environment Operations (Waste) Regulation 2005
TfNSW Application for Removal or Trimming of Vegetation (9TP-FT-078)
TfNSW Approval to Discharge or Reuse Water Form (9TP-FT-207)
TfNSW Chemical Storage and Spill Response Guidelines (9TP-SD-066)
TfNSW Construction Noise Strategy (7TP-ST-157)
TfNSW Environmental Incident and Non-Compliance Report (9TP-FT-101)
TfNSW Environmental Incident Classification and Reporting (9TP-PR-105)
TfNSW Environmental Policy (1TP-PO-002)
TfNSW Guide to Compliance Monitoring and Reporting Using PECOMS Procedure (9TP-SD-012)
TfNSW Guide to Environmental Control Maps (9TP-SD-015)
TfNSW Guide to Environmental Design Constraints Map (4TP-SD-018), clauses 1, 2 and 3
TfNSW Out of Hours Assessment (3TP-PR-065)
TfNSW Out of Hours Work Application Form (9TP-FT-079)
TfNSW Out of Hours Work Application Form (EPL Requirements) (9TP-FT-080)
TfNSW Safety and Environmental Incident Report (9TP-FT-002)
TfNSW Sustainable Design Guidelines (7TP-ST-114)
TfNSW System Deficiency Notice (9TP-FT-032)
TfNSW Water Discharge and Reuse Guideline (7TP-ST-146)
TfNSW Approval to Discharge or Reuse Water Form (9TP-FT-207)
Waste Classification Guidelines (OEH 2008)
Environmental Records

The following lists the environmental records required by TSR E1. All records must be made available to the Principal’s Representative. The documents identified below with a "*" must be forwarded to the Principal’s Representative and the Contractor must ensure that the Principal’s Representative has the latest version of the records at all times. Where the Contractor is required to forward records to the Principal’s Representative, the Contractor must submit one original and three copies (one of which is unbound) of each document (including draft and final reports, specifications, drawings, plans, etc) for the Principal’s review. In addition the Contractor must also submit an electronic copy on CD/DVD in PDF and native formats (such as Microsoft Word, Microsoft Excel, CAD in *.dwg or *.dgn) of documents.

<table>
<thead>
<tr>
<th>Required Record or Reference</th>
<th>Principal Issued</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Manual, Policy, Contractor’s Environmental Management Plan, and applicable</td>
<td></td>
</tr>
<tr>
<td>environmental management system procedures</td>
<td></td>
</tr>
<tr>
<td>List of who holds issued documents on a register of current document issue/revisions</td>
<td></td>
</tr>
<tr>
<td>Index of all environmental records (prior to Completion)</td>
<td></td>
</tr>
<tr>
<td>Records of management reviews for the project</td>
<td></td>
</tr>
<tr>
<td>Personnel qualifications/skills records</td>
<td></td>
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<tr>
<td>Induction and training records</td>
<td></td>
</tr>
<tr>
<td>Environmental Control and Constraints Maps</td>
<td></td>
</tr>
<tr>
<td>Records of work environment controls</td>
<td></td>
</tr>
<tr>
<td>Minutes of tender/Contract reviews</td>
<td></td>
</tr>
<tr>
<td>Evidence of environmental inputs/outputs and outputs into the design process</td>
<td></td>
</tr>
<tr>
<td>including sustainability initiatives</td>
<td></td>
</tr>
<tr>
<td>Surveillance, audit of subcontractors environmental performance and controls</td>
<td></td>
</tr>
<tr>
<td>Procedures describing how to control work processes and continual demonstration of</td>
<td></td>
</tr>
<tr>
<td>effective environmental controls</td>
<td></td>
</tr>
<tr>
<td>Register of equipment</td>
<td></td>
</tr>
<tr>
<td>Calibration frequency and certificates</td>
<td></td>
</tr>
<tr>
<td>Work method statements</td>
<td></td>
</tr>
<tr>
<td>Schedule of Inspection and Test Plans</td>
<td></td>
</tr>
<tr>
<td>Inspection and Test Plans</td>
<td></td>
</tr>
<tr>
<td>Customer satisfaction records and actions taken to improve customer satisfaction</td>
<td></td>
</tr>
<tr>
<td>Audit reports</td>
<td></td>
</tr>
<tr>
<td>Records/checklists of inspection and testing</td>
<td></td>
</tr>
<tr>
<td>Contractor’s Non-conformance Reports and register</td>
<td></td>
</tr>
<tr>
<td>TfNSW Environmental Non-Compliance Reports</td>
<td></td>
</tr>
<tr>
<td>Records of analysis of data generated during the Contract</td>
<td></td>
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<tr>
<td>Corrective action reports and register</td>
<td></td>
</tr>
<tr>
<td>TfNSW System Deficiency Notices</td>
<td></td>
</tr>
<tr>
<td>Preventive action reports and register</td>
<td></td>
</tr>
</tbody>
</table>
ANNEXURE D – Planning Approval
Planning Approval
Cardiff Railway Station Accessibility Upgrade REF, Stages 2 & 3
As determined by RailCorp on 29 April 2011

Note:
- Where 'RailCorp Project Manager' is referenced please replace with 'TfNSW Project Manager'
- Where 'RailCorp Projects Division Environmental Unit' is referenced please replace with TfNSW Director Environment
- Where 'RailCorp Projects Division Program Manager and Environmental Unit' are referenced please replace with 'TfNSW Project Manager and Environment Planning Manager respectively'.

<table>
<thead>
<tr>
<th>No.</th>
<th>REF Conditions</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Project must be undertaken in accordance with the description of the activity and environmental control measures listed in this Review of Environmental Factors (REF)</td>
<td>Contractor</td>
</tr>
<tr>
<td>2</td>
<td>Prior to the commencement of any works on-site, the RailCorp Project Manager must complete any outstanding consultation as described in Section 3 of this REF</td>
<td>Principal</td>
</tr>
<tr>
<td>3</td>
<td>A Construction Environmental Management Plan (CEMP) identifying the potential risks of the activity and how these will be managed must be prepared to the satisfaction of the RailCorp Projects Division Environmental Unit</td>
<td>Contractor</td>
</tr>
<tr>
<td>4</td>
<td>As a minimum the risks and mitigation/controls measures provided in Section 4 and Section 6 of the REF must be included in the CEMP</td>
<td>Contractor</td>
</tr>
<tr>
<td>5</td>
<td>The CEMP must include the following sub-plans:</td>
<td>Contractor</td>
</tr>
<tr>
<td></td>
<td>a. Traffic and Pedestrian Management Plan</td>
<td></td>
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<tr>
<td></td>
<td>b. A Sediment and Erosion Control Plan, which complies with Managing Urban Stormwater: Soils and Construction (Landcom, 2004) and incorporates a site diagram showing the position of controls</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. A Construction Noise and Vibration Management Plan as described in Section 4.1 of this REF</td>
<td></td>
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<tr>
<td></td>
<td>d. A Waste Management Plan that includes:</td>
<td></td>
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<tr>
<td></td>
<td>i. Details of, and the waste management plan action proposed for, each type of waste;</td>
<td></td>
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<td></td>
<td>ii. Procedures that ensure the waste is transported to a lawful place; and</td>
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<tr>
<td></td>
<td>iii. A description of the roles and responsibilities of everyone who manages the waste, including the site supervisor and sub-contractors</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Construction hours for this project are between 7am and 6pm Monday to</td>
<td>Contractor</td>
</tr>
</tbody>
</table>

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Friday, and 8am and 1pm Saturday. Residents and other sensitive receivers must receive at least 5 days prior notification of any works that are:

a. to be conducted outside these hours, namely during weekend possessions; and/or

b. any works that are likely to be noisy.

Any works scheduled to be carried out outside of the above construction hours must be approved as an addendum to this REF.

| 7 | A copy of this REF and the CEMP are to be retained on-site and produced upon request. | Contractor |
| 8 | Ensure relevant control measures are in place before work commences and that they are regularly monitored. | Contractor |
| 9 | Brief personnel during site inductions on the location of sensitive areas and control measures identified. | Contractor |
| 10 | Stop work and immediately notify the relevant Railcorp Projects Division Program Manager and Environmental Unit if you encounter anything which was not identified adequately or was previously unknown. | Contractor |
| 11 | Prepare a preliminary waste classification and contamination assessment to accurately define the nature and extent of contamination at the site, for the purpose of disposal and potential on-site reuse of excavated material. Where contaminated soils are identified, specific strategies and control measures must be formulated via an EMP in order to manage any risks posed by the identified contamination to site workers, the public and the environment during the site works. | Contractor |
| 12 | An acoustic specialist will be engaged post commissioning of the new system to assess the environmental noise impact of the PA system announcements at the nearest residential receivers. The assessment will involve noise measurements (L_Aeq15min and short-term background noise monitoring) between 7:00pm and the latest train, plus the earliest train to 6:00am (as shown in the CityRail timetable). The specialist will make recommendations (if necessary) in order to meet the noise goal of less than or equal to background plus 5dB(A) at the nearest residential receivers. | Contractor |
| 13 | This REF expires after five (5) years from the date of Determination unless works have physically commenced within that period. | Principal |
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ANNEXURE B – List of Reference Documents

ANNEXURE C – Principal's Communications Quality Checklist

ANNEXURE D – Principal's Process for Approval of Routine Correspondence (flyers, notices, advertisements etc)

ANNEXURE E – Procedure for Accessing Private Property
1 Introduction

1.1 GENERAL

TfNSW Standard Requirements C1 describes the requirements and processes which the Contractor must implement as a minimum to ensure communications and community relations activities are appropriately managed and designed to engage positively with the community, minimising disruption to the adjacent residents, property owners and all transport users. TSR C1 includes the requirements for incident management and reporting.

For the avoidance of doubt, all requirements of this TSR C1 also apply to Subcontractors unless otherwise specified.

1.2 USER INSTRUCTIONS

For a contract other than an Alliance contract, the definitions used in this TSR C1 have the meanings as set out in the Contract and in TSR Prelude.

For an Alliance contract, the definitions used in this TSR C1 have the meanings as set out in the Project Alliance Agreement and in TSR Prelude as well as below. Where a defined term below conflicts with a defined term in TSR Prelude the defined term below will apply:

(a) “Contract” means “Agreement”.
(b) “Contractor” means “Alliance”.
(c) “Contractor’s Activities” means “Alliance Activities”.
(d) “Principal” means “TfNSW”.
(e) “Principal’s Representative” means “TfNSW Representative”.
(f) “Project Definition Documents” means any or all of the following:
   (i) The Project Brief;
   (ii) The Business Requirements Specification (BRS);
   (iii) The System Requirements Specification (SRS); and
   (iv) any other Project Definition Phase documents provided by the Principal.
(g) “Temporary Works” means “Alliance Temporary Works”.
(h) “Works” means “Alliance Works”.

2 General Community Liaison Obligations

The Contractor must:

(a) appoint suitably qualified and experienced community relations personnel to fulfil the communications requirements of the Contract;
(b) ensure timeframes and resources for community notification and consultation are incorporated into project planning and programs;
(c) develop a "Community Liaison Plan" or "CLP" in accordance with TSR C1 Clause 3;
(d) record and maintain records in the project's communications management system or "CMS" in accordance with the requirements of TSR C1;
(e) ensure its employees, Subcontractors and agents comply with the CLP and meet the CMS record keeping requirements;
(f) be proactive in providing the community with accurate and adequate information on the status of Contractor's Activities and the Works and any associated impacts;
(g) make available appropriate senior personnel (for example environmental manager, design manager, construction manager, technical experts) to attend meetings with the community or other stakeholders, as required; and
(h) prior to taking any unilateral action that may impact on the community, consult the Principal's Representative.

3 Community Liaison Plan (CLP)

The CLP must provide a clear framework, including policies, processes, and procedures for proactive communications management, which complies with the community liaison obligations of the Contract.

The CLP must be submitted to the Principal's Representative in accordance with the Contract including TSR Prelude. The Contractor is responsible for implementing and maintaining the CLP. The Contractor must review and update the CLP in accordance with the Contract including TSR Prelude.

The CLP must include the following as a minimum:

(a) details of the community relations resources, including personnel, to be employed by the Contractor whilst carrying out the Contractor's Activities;
(b) a comprehensive, project-specific analysis of issues to be managed prior to and during construction, including proposed strategies to manage these issues;
(c) a comprehensive stakeholder list, highlighting issues/interests and strategies for dealing with each audience;
(d) details of Contractor specific key messages to be used in information materials and when responding to enquiries and complaints;
(e) details of proposed Contractor specific communication and consultation tools to be used;
(f) details of requirements of the project environmental assessment and the conditions of the Planning Approval for community and stakeholder consultation and proposed methodologies and timeframes for undertaking this consultation;
(g) policies and procedures for handling community complaints and enquiries, and for handling of media enquiries;
(h) details of the Contractor’s nominated 24 hour contact for management of complaints and enquiries;
(i) policies and procedures for incident management and reporting;

(j) an indicative program for the implementation of community liaison activities. This program should include key dates for the commencement and conclusion of construction activities, associated impacts to the community and the Contractor's proposed strategy for minimising impacts and informing the community. The community liaison program must be regularly updated for discussion at the communications meeting with the Principal's Representative;

(k) policies and procedures for ensuring Subcontractors comply with the communications requirements of the Contract;

(l) details of activities which will be undertaken to monitor and evaluate the effectiveness of the community liaison program;

(m) 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; and

(n) details of proposed 'marketing' activities planned to be undertaken by the Contractor regarding its activities, including procedures for obtaining approval from the Principal's Representative prior to planning and implementing any such activities.

A summary CLP is required for upload on to the Principal's website.

4 Communications Management System (CMS)

The Principal has a web-based CMS for the collection and recording the details of all project contact and correspondence with the community and stakeholders. The Contractor must complete formal training to become familiar with the CMS. The Contractor must update and maintain the CMS with accurate contact details to ensure easy identification and rapid distribution of information when required.

The Contractor must record all contacts with the community and actions resulting from these contacts in the CMS within 24 hours of the contact/activity occurring or receiving correspondence.

Monthly reports on community contacts (detailing issues and frequency) must be sent to the Principal's Representative in accordance with the Contract including TSR Prelude.

5 Communications Management Control Group

A "Communications Management Control Group” or “CMCG” will be convened by the Principal's Representative prior to the commencement of any Contractor's Activities at the Site. From then, the CMCG will meet fortnightly or less frequently if approved by the Principal's Representative.

The Contractor must attend all CMCG meetings and provide all relevant information regarding any potential impact the Contractor's Activities may have on the community including local residents, property owners, businesses and transport users.

At each meeting the Contractor is required to provide the following information:

(a) a summary of current and upcoming Contractor's Activities, likely impacts, and proposed communication strategies to address these;
6 Meetings with the Community and Other Stakeholders

The Contractor must coordinate consultation activities with the community and other stakeholders. This includes organising meetings with the community or with key stakeholders (or accompanying the Principal's Representative where such meetings are organised by the Principal's Representative) to discuss the Contractor's Activities (including work in progress and work upcoming) or any issues in connection with the Contractor's Activities. Where required by the Principal's Representative, the Contractor must provide relevant materials for presentation and/or distribution at such meetings. The Contractor must provide the Principal's Representative with a minimum of 3 Business Days notice prior to any meeting with the community or stakeholders.

The Contractor must ensure that suitable persons are available to attend such meetings (including after-hours). Such persons must be adequately informed and suitably qualified to participate and be able to take the lead during the meeting in detailing the progress of the Works, and in the resolution of community issues (where possible).

The Contractor must comply with all reasonable suggestions and requests of the community.

The Contractor must ensure that the details of all meetings held with the community and key stakeholders are recorded in the CMS within 24 hours of such meetings taking place.

7 Community Notification

The Contractor must proactively notify the community and key stakeholders of current and upcoming development in connection with the Contractor's Activities including any activities with the potential to impact on the community. The Contractor must comply with TSR C1 Annexure C and Annexure D when preparing and distributing community information.

In particular, for any activity with the potential to impact on any member of the community, the Contractor must advise the community between 10 and 14 days prior to such activity being undertaken.

At least 5 Business Days prior to the 10 to 14-day community notification period, the Contractor must submit to the Principal's Representative for approval its proposed notification materials in accordance with the process described in TSR C1 Annexure D. All materials must be consistent with the requirements of the checklist contained within TSR C1 Annexure C.
In addition to notifying of works with the potential to impact the community, the Contractor is responsible for updating the community on a monthly basis on the status of current and upcoming Contractor’s Activities. The Contractor must submit the draft construction-update content to the Principal’s Representative for approval at least 5 Business Days prior to distribution (as per the requirements above).

Means of advising the community may include, but are not limited to, flyers, newsletters, door knocks, signage, posters, telephone calls, meetings and advertisements.

The Contractor must not implement any communication strategies to the community or stakeholders without the approval of the Principal’s Representative. This includes any means of communicating with the public through the use of flyers, newsletters, door knocks, signage, posters, telephone calls, meetings, advertisements and the like.

All information materials must be sufficiently detailed, accurate and targeted to the appropriate audience. All information materials must be of a professional quality, printed in colour (unless otherwise agreed by the Principal’s Representative) and designed in accordance with the TCA Corporate Identity Style Guide for Contractors and Consultants (CO-ST-100) and the quality checklist contained within TSR C1 Annexure C.

For complex or potentially contentious issues, or where directed by the Principal’s Representative, a communications strategy must be developed to adequately consider, address and manage the communications process. Communications strategies must be submitted to the Principal’s Representative for approval at least 5 Business Days prior to implementing the strategy.

The Contractor must ensure that details of communication with the community and key stakeholders are recorded in the CMS.

8 Information to the Principal’s Representative

The Contractor is required to provide (and explain) accurate communications information to the Principal’s Representative regarding current and upcoming Contractor’s Activities (including works of Subcontractors) and all associated community impacts as follows:

(a) Prior to Site establishment: a program of the Contractor’s Activities, scheduling, and details of the planned community impact minimisation measures;

(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);

(c) Quarterly: the works completed and upcoming Contractor’s Activities, including any associated community impacts (in a format suitable for inclusion in the Principal’s project updates); and

(d) As required: information to allow the Principal’s Representative to be kept abreast of the Contractor’s Activities, construction activities and/or community impacts, and to allow timely responses to community and media enquiries and/or complaints.

The Contractor must be contactable on a 24-hour basis (as required).
9 Marketing and Promotional Opportunities

The Contractor must not unilaterally commit to a marketing or promotional opportunity or develop marketing or promotional materials that relate to the project or the Contractor's Activities (including but not limited to signage, displays, media articles, advertisements, presentations at conferences, technical papers, photographs, sponsorships, website text and graphics, case studies or other corporate materials) without the prior written approval of the Principal's Representative.

Any marketing and promotional opportunities and draft marketing/promotional materials must be submitted to the Principal's Representative for approval at least 5 Business Days prior to the activity occurring or the distribution date or print deadline of any materials.

The Contractor must proactively identify positive media and/or community relations opportunities and inform the Principal's Representative of these opportunities in a timely manner.

10 Complaints and Enquiries Management

The Contractor is responsible for responding to complaints and enquiries received regarding the Contractor's Activities and impacts associated with the Contractor's Activities. Complaints and enquiries may be received through a variety of avenues including TfNSW's 24-hour construction response line or project infoline, in writing (letter or email), direct to TfNSW via telephone, or direct to the Contractor or Subcontractors.

In responding to complaints the Contractor must:

(a) record details of every complaint received and how it was managed and closed out in the CMS;
(b) investigate and determine the source of the complaint immediately, including an immediate call to the complainant where the complaint was received by telephone. Should the Contractor determine that the complaint does not relate to the Contractor's Activities, the Contractor must immediately notify the Principal's Representative;
(c) provide at least an oral response to the complainant regarding what action is proposed as soon as possible and within a maximum of 2 hours from the time of the complaint (unless the complainant requests otherwise). If a phone number is provided, complaints received by email and letter must be responded to orally within a maximum of 2 hours from time of receipt. If no phone number is provided, the complaint must be responded to within a maximum of 24 hours for emails and one week for letters from time of receipt.
(d) forward information on any complaints received, including response times and details of any actions undertaken or proposed or investigations occurring, to the Principal's Representative in writing each Business Day to meet the Principal's reporting requirements and requirements of the EPL;
(e) provide a detailed written response to the complainant within 7 Business Days, outlining the details of the issue and the remedial action that has been taken. A draft written response is to be provided to the Principal's Representative for approval within 5 Business Days of receipt of the complaint;
In responding to enquiries the Contractor must:

(f) forward a scanned signed copy of the approved written response to the Principal's Representative on the day it is sent; and

(g) provide the Principal's Representative with details in writing of complaint close out actions and the date action was implemented.

The table below illustrates the required complaints handling and reporting process.
Principal's Complaint Resolution Process

1. Complaint received by project 1800 complaints line or email and forwarded to TfNSW

2. TfNSW determines works package where complaint originated and the Principal forwards details of the complaint to the relevant Contractor.

3. Contractor records details into the CMS and investigates complaint and determines appropriate action.

4. Contractor verbally confirms the action to be undertaken with the complainant and update details in the CMS.

5. CMS report forwarded to the Principal's Representative.

6. Complaints logged in the Principal's Complaints Register.

7. The Principal to forward details of complaints to Environmental Representative.

8. Contractor to provide draft written response to Principal's Representative for approval.

9. Once approved, Contractor issues the written response to complainant and provides Principal's Representative with a scanned signed copy of the approved letter and logs into the CMS.

10. Contractor provides the Principal's Representative with details in writing of complaint close out actions and the date action was implemented.

11. Complaints register forwarded to Principal's Representative.
11 Media and Government Relations

The Contractor must:

(a) immediately make any enquiry/contact by the media or elected government representative known to the Principal's Representative;

(b) not make any statement (oral or written) or provide any photographs or illustrations to the media or elected government representative regarding the Contractor's Activities without the prior written approval of the Principal's Representative;

(c) not permit any media or elected government representative on a worksite without the prior written approval of the Principal's Representative;

(d) provide the Principal's Representative 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

(f) record all contact with the media and elected government representatives, and project related articles (paper and web based) and online discussions (blogging) into the CMS and send copies of articles or web link to the Principal's Representative.

12 Incident Management and Reporting

The Contractor must immediately notify the Principal's Representative 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 WHS issue the Contractor must also comply with the notification provisions of TSR S1. Where the incident is in respect of the environment the Contractor must also comply with the notification provisions of TSR E1.

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's Representative. The Contractor must make available senior personnel to respond to the community, the media and other stakeholders when required by the Principal's Representative.

As required, the Contractor must provide the Principal's Representative with all necessary communications materials that may need to be disseminated as a result of such incidents.

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;
(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 (9TP-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 TSR Q1, and submitted to the Principal’s Representative within 5 Business Days of the incident occurring.

The Contractor must ensure that all details of an incident or issue are recorded in the CMS.

13 Site Inspections by Visitors and Photography

The Contractor must not organise any site visits by community members or other stakeholders without approval from the Principal’s Representative. The Contractor must provide the Principal’s Representative with at least 48 hours prior written notice of all proposed visits.

The Contractor must accommodate regular, periodic visits to the Site by the Principal’s Representative for the purpose of photography or videography for promotional purposes. Any photographs or film footage taken by the Contractor or the Principal’s Representative becomes the property of the Principal who may, without the Contractor’s approval, use the photographs and/or film footage for whatever purpose the Principal deems necessary or appropriate.

14 Construction Hoardings and Fences

Hoardings and fencing, including shade cloth or other material on the external face of any hoarding or fence, must be provided in a colour and texture approved/specifed by the Principal’s Representative.

The Contractor must submit plans for any proposed hoardings or fencing, including shade cloth or other material on the external face of any hoarding or fence, to the Principal’s Representative for review and written approval.

15 Signage, Graffiti and Bill Posters

The Principal will provide the Contractor with signage to be installed by the Contractor on hoardings at the Site to provide the community with details of the 24-hour construction response line. This is in addition to the Contractor’s responsibilities with regard to workcover legislation.
(and any other Laws) to provide out of hours contact details. The Contractor must provide, as requested, the resources required to assist the Principal with the provision and/or installation of any other signage or graphics required on the hoardings or fencing.

The Contractor must not place any signage, advertising or branding (other than safety signage) on the external face of any hoarding or fence without the prior written approval of the Principal's Representative.

The Contractor must prepare and install any way finding signage to direct pedestrians/commuters/vehicles around the Site as appropriate.

Hoardings, site sheds, fencing, acoustic walls around the perimeter of the Site and any structures built as part of the Works are to be maintained free of graffiti and advertising not authorised by the Principal's Representative during the construction period.

The Contractor must carry out daily inspections for graffiti and unauthorised advertising must be removed or covered with the following timeframes:

(a) offensive graffiti will be cleaned or covered within 24 hours;
(b) highly visible yet non-offensive graffiti will be cleaned or covered within 1 week;
(c) graffiti that is neither offensive nor highly visible will be cleaned or covered during normal operations within one month; and
(d) any advertising material will be removed or covered within 24 hours.

16 Communication Requirements as Part of Site Inductions

The Contractor must ensure its employees and the employees of Subcontractors are adequately inducted and trained on the communication requirements of the Contract, with particular focus on incident management, incident reporting procedures, community enquiries or complaints, and media enquiries prior to commencing work on the Works.

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

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

17 Accessing Private Property

The Contractor must adhere to the Principal's procedure (TSR C1 Annexure E) for accessing private property.
ANNEXURE A – Additional Project Requirements
### Additional Project Requirements

<table>
<thead>
<tr>
<th>C1</th>
<th>User Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add clause 1.2 (i):</td>
<td></td>
</tr>
<tr>
<td>(i)</td>
<td>“CMS” means the “Communications Management System” in the form of the excel spreadsheet required under clause 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C2</th>
<th>Communications Management System (CMS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amend clause 4 as follows:</td>
<td></td>
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<tr>
<td>“For the Cardiff Station Upgrade project, the Principal will provide the Contractor with a CMS in the form of an excel spreadsheet for the collection and recording the details of all project contact and correspondence with the community and stakeholders. The Contractor must update and maintain the CMS with accurate contact details to ensure easy identification and rapid distribution of information when required.</td>
<td></td>
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<tr>
<td>The Contractor must record all contacts with the community and actions resulting from these contacts in the CMS within 24 hours of the contact/activity occurring or receiving correspondence.</td>
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</tr>
<tr>
<td>Monthly reports on community contacts (detailing issues and frequency) must be sent to the Principal’s Representative in accordance with the Contract including TSR Prelude.”</td>
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<table>
<thead>
<tr>
<th>C3</th>
<th>Meetings with the Community and Other Stakeholders</th>
</tr>
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<tbody>
<tr>
<td>Delete clause 6 and replace with:</td>
<td></td>
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<tr>
<td>“The Principal will coordinate consultation activities with the community and other stakeholders. This may include organising meetings with the community or with key stakeholders to discuss the Contractor’s Activities (including work in progress and work upcoming) or any issues in connection with the Contractor’s Activities. Where required by the Principal’s Representative, the Contractor must provide relevant materials for presentation and/or distribution at such meetings. The Principal’s Representative must provide the Contractor with a minimum of 3 Business Days notice prior to any meeting with the community or stakeholders.</td>
<td></td>
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<tr>
<td>The Contractor must ensure that suitable persons are available to attend such meetings (including after-hours). Such persons must be adequately informed and suitably qualified to</td>
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</table>
participate and be able to take the lead during the meeting in detailing the progress of the Works, and in the resolution of community issues (where possible).

The Contractor must comply with all reasonable suggestions and requests of the community."
ANNEXURE B – List of Reference Documents
List of Reference Documents

TCA Corporate Identity Style Guide for Contractors and Consultants (CO-ST-100)
TfNSW Corporate Communications Guidelines
TfNSW Editorial Style Guidelines
TfNSW Safety and Environmental Incident Report (9TP-FT-002)
ANNEXURE C – Principal’s Communications Quality Checklist
Principal's Communication Quality Checklist

This quality checklist must be completed and attached with all draft written communication provided to Principal's Representative for review/approval.

Communication title:
Objective of communication (i.e. general update, advise of out-of-hours work etc):

Date of submission to Principal's Representative: ___________ Date distribution to commence: ___________
Proposed start date of any new works requiring 10 to 14 days notice: ___________ Time period notification covers: ___________

Review/approval

<table>
<thead>
<tr>
<th>Name/Position</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author</td>
<td></td>
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<tr>
<td>Reviewed by</td>
<td></td>
</tr>
<tr>
<td>Approval by Principal's Representative</td>
<td></td>
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</tbody>
</table>

Checklist

<table>
<thead>
<tr>
<th>Content and context</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content: Does the communication clearly provide:</td>
<td></td>
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<tr>
<td>• A description of each activity/event?</td>
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<tr>
<td>• The dates, times and duration of each activity/event?</td>
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<tr>
<td>• The location of each activity/event?</td>
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<tr>
<td>• Information explaining the need for each activity/event?</td>
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<tr>
<td>• Information about the impact to the community (e.g. audible works) of each activity/event?</td>
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<tr>
<td>• Information about proposed mitigation measures to manage these impacts?</td>
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<tr>
<td>Distribution</td>
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<tr>
<td>• Is the proposed distribution area attached?</td>
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<tr>
<td>Out-of-hours work/road traffic impacts (if applicable)</td>
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<tr>
<td>• Are the details in the notification consistent with the out-of-hours/traffic works application(s) submitted?</td>
<td></td>
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<tr>
<td>• Have the works been approved by all relevant parties (including Council or RMS if necessary)?</td>
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<td>• For all unapproved works, have the words 'subject to approval' been included?</td>
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<tr>
<td>• Has justification been provided for the need for out-of-hours works?</td>
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<tr>
<td>Monthly construction notifications</td>
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<tr>
<td>• Have details about all current/ongoing/upcoming works been included?</td>
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<tr>
<td>• Will an additional, more detailed notification need to be distributed closer to the date? If yes, when will the subsequent notification be distributed?</td>
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<tr>
<td>• Is the communication consistent with other information issued to the community/stakeholders? List in comment field where appropriate other related existing/upcoming communications (i.e. advertisements, posters, signs etc).</td>
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<tr>
<td>Style and structure</td>
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<tr>
<td>• Is this communication tool the best way of communicating this information to the target audience?</td>
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<tr>
<td>• Have any other additional or alternative methods been considered or implemented? If so, please list.</td>
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<tr>
<td>• Is the most important information positioned at the beginning of the document?</td>
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<tr>
<td>• Are the messages clear and consistent with agreed project messages?</td>
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<td>• Has construction terminology been detailed in layman's terms?</td>
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<tr>
<td>Supporting graphics. If a map is included (where required):</td>
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<tr>
<td>• Is the graphic easy to understand?</td>
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</tbody>
</table>
Once approved, the communication material should be recorded into the CMS. A copy of the final communication material must be provided to the Principal's Representative before the communication material is distributed.
ANNEXURE D – Principal’s Process for Approval of Routine Correspondence
(flyers, notices, advertisements etc)
Principal’s process for Approval of Routine Correspondence

1. Contractor drafts correspondence in accordance with the Contract requirements and reviews against Principal’s Communications Quality Checklist.

2. Contractor forwards draft correspondence with proposed distribution area and completed quality checklist to Principal’s Representative via email at least 5 Business Days before commencement of the 10 to 14 day notification period.

3. Principal’s Representative reviews/corrects (or approves) copy, distribution zone and timeframe, and sends back to Contractor within 24-48 hours.

4. Contractor to correct copy and send revised draft to Principal’s Representative within 24 hours of receipt.

5. Principal’s Representative to review/correct or sign off within 24 hours of receipt and send back to the Contractor.

6. Contractor sends final approved copy to Principal’s Representative and issue correspondence as required.

7. Contractor to scan final copy of correspondence and enter into CMS together with any relevant documentation.
ANNEXURE E – Procedure for Accessing Private Property

Also including:

a) template letter to owner
b) template introduction letter
c) template thank you letter
Procedure for Accessing Private Property

Aim

These procedures have been developed to ensure a consistent and professional approach is adopted by Transport for NSW ("TfNSW") staff and contractors when seeking access to private properties.

Scope

These procedures must be implemented when seeking access to private property to conduct field work. Separate procedures have been developed for accessing private property to conduct property/building condition surveys.

Field work may occur during the feasibility and planning stages of a project (including the environmental assessment phase) as well as the construction stage. Activities which may require access to private property include noise monitoring, flora & fauna surveys, heritage surveys, flooding surveys, geotechnical investigations and services location.

Procedures

Specific procedures must be followed prior to visiting the property, during the visit and following the visit. These procedures apply to all TfNSW staff and contractors.

(a) Prior to the visit

1. Send a letter to the property owner at least one week prior to commencing field work to seek permission to access their property. The letter should provide details of the project, explain why the field work needs to be conducted, who will conduct the field work and what is involved. The letter should be on TfNSW letterhead and must be approved by the Director Public Affairs or nominated representative (see sample letter in Attachment A).

2. Contact the property owner by telephone 2 to 3 days after sending the letter to request permission to enter their property and discuss any special conditions of entry they may have. Provide details of the expected day/time of visit and ask the owner if they wish to be home as a condition of entry. Ensure all specific requirements are clearly documented. Ensure details of owners refusing permission are clearly documented. This telephone call can be made by TfNSW or the Contractor’s community relations manager.

3. Brief the field staff on which property owners have/have not provided permission and any specific conditions of entry.

4. Prepare an introduction letter for the field staff to carry on the day of the visit, advising the property owner that they are authorised to carry out the field work on behalf of TfNSW, and who to contact if they have any concerns (see sample letter in Attachment B).
If it is not possible to make contact with the property owner prior to the field visit, follow the procedures specified under the heading ‘During the visit’ below.

(b) During the visit

If the owner has already given permission:

1. Knock on the property owner’s door to notify of your arrival. Show the owner photo identification and the letter of introduction from TfNSW and then proceed with the field work. When completed, knock on the door to announce your departure.

2. If the owner is not home, and they previously gave permission for field work to be conducted without being present, leave the letter of introduction, including the time and date of the visit, in the letterbox and proceed with the field work.

3. If the owner is not home and did not previously give permission to carry out the field work without being present, leave the property immediately. Leave a copy of the original letter from TfNSW in the letterbox, with a note attached advising the property owner that you visited and asking them to make contact.

If prior contact has not been made with the owner:

1. If the person who answers has not previously given permission to access the property, ask if they recall receiving a letter from TfNSW. Explain the purpose of your visit and request permission to conduct the field work. Please note that permission cannot be given by a minor or a tenant. Ensure the person you are talking to is the owner, or ask for the owner’s contact details.

2. If the owner is not home and did not previously give permission to carry out the field work without being present, leave the property immediately. Leave a copy of the original letter from TfNSW in the letterbox, with a note attached advising the property owner that you visited and asking them to make contact.

(c) After the visit

1. Advise the Principal’s Representative of any issues which emerged during the field work, such as enquiries or complaints made by owners, tenants or neighbours.

2. Send the property owner a letter confirming that the field work has been completed and thanking them for their cooperation (see sample letter in Attachment C).

Protocols

The following protocols should be followed by all staff and contractors at all times.

- Log all contacts made with property owners through the process into the CMS.
- Do not enter any properties for which entry has been refused.
- Always knock on the door to announce your arrival and departure, even if the owner has previously provided permission to access the property.
Always wear photo ID and carry a letter of introduction from the Principal when conducting field work on private property.

Always leave gates and entrances the way they were found. If a gate is padlocked, do not enter.

If someone asks you to leave the property, do so without argument.

Always be courteous and polite to property owners, tenants and neighbours.

If someone asks you for any information about the project, ask them to ring the TfNSW infoline on 1800 684 490.

Do not give any results or data collected during the survey to the property owner/tenant.

Further Information

Please contact the TfNSW Public Affairs Directorate on 9200 0265 for any questions relating to these procedures.
Attachment A – Sample Letter to Owner

Dear (insert name)

Proposed [Insert Program/Project] – Request for property access for field investigations

I am writing to request temporary access to your property to undertake field investigations for the proposed [Insert Program/Project] (“Project”).

Transport for NSW (“TfNSW”) has recently engaged xxxx to prepare an Environmental Assessment for the Project. As part of the Environmental Assessment, xxxx will carry out field investigations to complete noise, flooding, heritage and flora and fauna studies.

To carry out these investigations, xxxx and its sub-consultants require access to a number of private properties in the area surrounding the proposed Project. As your property at (insert address) is in the field study area, I am seeking permission for xxxx (or its sub-consultants) to temporarily access your property on up to four occasions over the coming months.

The visits would be used to collect data, but this would not require any ground disturbance at your property.

Access would be required during the day. The length of each visit will vary according to the size and features of your property, but should not take longer than a few hours. Access inside your home is not necessary so you would not be required to be in attendance.

A representative from xxxx will contact you by telephone in the next week to confirm your decision regarding access to your property. If you agree to provide access, they will discuss with you the expected date of the visits and any specific instructions you may have regarding access.

Enclosed for your information is a copy of a Planning Update that was recently distributed to the area. The update contains information about the preferred route and the planning process for the SWRL.

If you have any questions about the field investigations, or any other aspect of the Project, please contact TfNSW on 1800 684 490.

Yours sincerely

XXXXX
General Manager, Public and Corporate Affairs

[insert date of issue]
Attachment B – Sample Introduction Letter

To the property owner

Proposed [Insert Program/Project] – Field investigations

Thank you for allowing access to your property for field investigations associated with the Environmental Assessment for the proposed [Insert Details] (“Project”).

Transport for NSW (“TfNSW”) has engaged xxxxx to prepare the Environmental Assessment, and a number of specialists will also be engaged to undertake investigations.

This letter is to introduce a representative(s) of xxxxx, who will be undertaking flora and fauna assessments for the proposed Project.

The representative(s) will not require access inside your home, and will be carrying photo identification to confirm their identity.

If you have any questions or concerns regarding the field investigations, please contact TfNSW on 1800 684 490.

Thank you for your cooperation and assistance.

Yours sincerely

XXXXX

General Manager, Public and Corporate Affairs

[insert date of issue]
Attachment C – Sample Thank You Letter

Dear (insert name)

Proposed [Insert Program/Project] – Property access for field investigations

Thank you for allowing access to your property for field investigations associated with the Environmental Assessment for the proposed [Insert details] ("Project").

xxxxx and its sub-consultants have recently completed flooding, non-Indigenous heritage and some ecological surveys. It was not necessary to access all properties in the area, as enough data was collected from the road or adjoining properties. If you have not received a visit from the field staff, access to your property was not required for this round of surveys.

In the coming months it will be necessary to complete a spring-time ecological survey in some areas and an Indigenous heritage survey. A representative from xxxxx will contact you before commencement of these surveys to request permission to access your property and discuss timing and conditions.

Your assistance during this field work is greatly appreciated.

If you have any questions about the field investigations, or any other aspects of the proposed Project, please contact the Project Infoline on 1800 684 490 or email mail@transport.nsw.gov.au.

Yours sincerely

xxxxx

General Manager, Public and Corporate Affairs

[insert date of issue]
TfNSW Standard Requirements

TSR 01 – Commissioning and Operational Readiness

50-FT-182/1.0

Standard Applicable to: Transport Projects Division

TPD Quality Management System

Status: Draft
Division: Transport Projects
Version: 1.0
Date of issue: 31 January 2012
Effective date: 31 January 2012
Review date: 31 January 2013
Document owner: Technical Director Commercial
Security classification: Open Access

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ANNEXURE A – Additional Project Requirements

ANNEXURE B – List of Reference Documents

ANNEXURE C – Commissioning and Operational Readiness (COR) Stages
1 General

TSR 01 describes the Commissioning and Operational Readiness requirements that the Contractor must complete to enable the Principal to handover the Works to RailCorp.

1.1 User Instructions

For a contract other than an Alliance contract, the definitions used in this TSR 01 have the meanings as set out in the Contract and in TSR Prelude.

For an Alliance contract, the definitions used in this TSR 01 have the meanings as set out in the Project Alliance Agreement and in TSR Prelude as well as below. Where a defined term below conflicts with a defined term in TSR Prelude the defined term below will apply:

(a) “Contract” means “Agreement”.
(b) “Contractor” means “Alliance”.
(c) “Contractor’s Activities” means “Alliance Activities”.
(d) “Principal” means “TfNSW”.
(e) “Principal’s Representative” means “TfNSW Representative”.
(f) “Temporary Works” means “Alliance Temporary Works”.
(g) “Works” means “Alliance Works”.

2 Building Certification

2.1 General

The Works must comply with the Building Code of Australia (BCA), the Environmental Planning and Assessment Act (1979) NSW (“EP&A Act”), the Environmental Planning and Assessment Regulation 2000 NSW (“EP&A Regulation”), the Disability Discrimination Act 1992 (DDA) and, where applicable, the Disability Standards for Accessible Public Transport. The Contractor is responsible for securing building compliance certifications for all building works consistent with the provisions of TfNSW Building Certification Procedure (4TP-PR-184).

Certifications must include but are not limited to the following:

(a) BCA compliance assessment report which must be submitted by the Contractor with its System Definition Review submission unless this has been provided by the Principal and included in the Contract;
(b) BCA design certificate which must be issued prior to commencement of construction to comply with Section 109R of the EP&A Act;
(c) final BCA compliance certificate which must be issued and submitted to the Principal’s Representative as a condition precedent to Completion;
(d) Disability Discrimination Act compliance certificate;
(e) final fire safety certificate; and
(f) maintenance schedule for essential fire safety measures.

All parts of the Contractor's Activities that involve building works must comply with the “Deemed-to-Satisfy” provisions of the Building Code of Australia unless “Alternative Solutions” are provided by appropriate persons as detailed in the BCA, and the EP&A Act and the EP&A Regulation.

In addition to the requirements of the EP&A Act and the EP&A Regulation any “Alternative Solutions” proposed by the Contractor must be submitted for review by the Principal's Representative in accordance with the requirements set out in the Contract, prior to the commencement of construction.

The Contractor is responsible for submitting all required documents to and securing all necessary approvals from the NSW Fire Brigade.

2.2 Engagement of Building Certification Consultants

The Contractor must engage the following consultants:

(a) An access consultant who is an accredited member of the Association of Consultants in Access, Australia; and
(b) a BCA Certifier who meets the requirements of an “accredited certifier” as defined in the EP&A Act.

The Contractor may engage the following consultant if required:

(c) A “fire safety engineer” as defined in the EP&A Regulation.

All of the above consultants must be approved by the Principal's Representative prior to engagement by the Contractor.

As a guideline only, the consultants should satisfy the following selection criteria:

In respect of the BCA Certifier:

(d) It must employ two or more accredited certifiers (as defined in the EP&A Act) with Grade 1 (unrestricted) Accreditation, who must be located in Sydney;
(e) individual certifiers must have direct experience gained within the last five years on all phases of two or more railway station building projects where the cost of building works exceeded $1,000,000 for each project;
(f) individual certifiers must have direct experience gained within the last five years on all phases of four or more Crown building projects where the cost of building works exceeded $2,000,000 for each project;
(g) four referees from the projects referred to in paragraphs (e) and (f) above must be nominated; and
(h) it must be an incorporated company, must hold appropriate insurances and must have been active in this field for at least four years.

In respect of the Fire Safety Engineer:
(i) It must employ two or more fire safety engineers (as defined in the EP&A Regulation), who must be located in Sydney;

(j) individual fire safety engineers must have direct experience gained within the last five years on all phases of two or more railway station building projects where the cost of building works exceeded $10,000,000 for each project and two or more projects involving substantial tunnels;

(k) four referees from the projects referred to in paragraph (j) above must be nominated; and

(l) it must be an incorporated company, must hold appropriate insurances and must have been active in this field for at least four years.

In respect of the Access Consultant:

(m) It must employ a person who is an accredited member of the Association of Consultants in Access, Australia, who must be located in Sydney;

(n) the accredited consultant must have direct experience gained within the last five years on all phases of two or more railway station building projects where the cost of building works exceeded $1,000,000 for each project;

(o) four referees from the projects referred to in paragraph (m) above must be nominated; and

(p) it must be an incorporated company, must hold appropriate insurances and must have been active in this field for at least four years.

3 Commissioning and Operational Readiness

Commissioning and Operational Readiness covers the completion of all activities necessary to enable TfNSW to hand over new or refurbished infrastructure, buildings, equipment or systems to the owner/operator. Commissioning and Operational Readiness are two separate but closely related processes, which become more intensive towards the completion of a project (or a particular stage of a project), to ensure the project (or stage) meets user requirements and is ready to become operational at handover.
Operational Readiness begins as a planning function early in the project life cycle and continues until the project becomes operational. Completion of operational activities will likely be progressive and may be staged along with project delivery. TfNSW defines the elements of Operational Readiness as infrastructure ready, personnel ready and documentation ready.

Figure 2 shows the relationship between Commissioning and Operational Readiness and other project phases for a single stage project. As a guideline, Commissioning and Operational Readiness activities mostly run in parallel, although the majority of Operational Readiness activities tend to occur towards the end of the overall Commissioning process.

**Figure 1** - The integrated nature of Commissioning and Operational Readiness activities between key project stakeholders

**Figure 2** - Integration of Commissioning/Operational Readiness phases with project delivery
4 Commissioning

4.1 Commissioning Management Plan

The Contractor must prepare a "Commissioning Management Plan" for the Works based on TfNSW Commissioning Management Plan (4TP-SD-034).

The Commissioning Management Plan must be submitted to the Principal’s Representative for review in accordance with the requirements set out in the Contract including TSR Prelude. The Principal will review and comment on the initial submission of the Commissioning Management Plan. Any comments made by the Principal must be closed out by the Contractor to the satisfaction of the Principal at which time a Certificate of No Objection will be issued to evidence acceptance.

The Contractor is responsible for programming and co-ordinating all Commissioning activities that are required to be carried out for the Works, including activities which may be carried out by third parties, all in accordance with the Commissioning Management Plan.

4.2 Construction Compliance with Design

Where nominated in TSR 01 Annexure A, the inspection and testing performed by the Contractor must include certification of compliance with Design Documentation by the design consultants. This certification is required for the following elements (where applicable):

(a) All structural works, including foundations, superstructure, retaining walls, noise walls and the like;
(b) all mechanical ventilation and air conditioning services;
(c) all electrical services including lighting;
(d) all communications services, including cabling;
(e) mechanical transportation systems, including lifts and escalators;
(f) all fire services, including those listed in Regulation 166 of the EP&A Regulation;
(g) all glazing, including glazing support structures;
(h) all rail infrastructure works, including train rails, traction power works, earthing and bonding, high voltage electrical works, transformers, cabling and signalling works;
(i) anything else required by the Project Definition Documents; and
(j) any other component of the Works that the Principal’s Representative deems appropriate.

4.3 Commissioning Activity Plan

The Contractor must prepare and implement a "Commissioning Activity Plan" or “CAP” that identifies all commissioning activities to be carried out by the Contractor. The commissioning activities must validate that the Contractor’s Activities satisfy the requirements of the Contract.
The CAP must be submitted to the Principal’s Representative in accordance with the Contract including TSR Prelude.

The CAP must include the following:

(a) A list of all applicable owner or operator standards covering Commissioning;

(b) an organisation structure for the Commissioning activities, including:
   (i) an organisation chart showing the personnel and their responsibilities for Commissioning; and
   (ii) the personnel training, qualifications and/or certification required for each Commissioning activity, including where necessary operating the Works during the Commissioning,

(c) a detailed description of each of the stages of Commissioning listed in TSR 01 Clause 4.4;

(d) a schedule of ITPs required for each stage of Commissioning, extracted from the master schedule of ITPs prepared in accordance with TSR Q1;

(e) a list of all off-site and on-Site acceptance tests that the Contractor must obtain to demonstrate compliance with the Contract and manufacturers’ recommendations. The Contractor may incorporate the acceptance tests into the ITPs;

(f) a Commissioning program that:
   (i) identifies the different stages and activities;
   (ii) takes into account the activities of Other Contractors;
   (iii) identifies the critical path and linkages to all pre-requisite actions;
   (iv) identifies inter and intra contract links to any other interdependent predecessor and successor Commissioning activities; and
   (v) identifies the duration of each component of the Commissioning activities; and

(g) a detailed description of the safety management requirements associated with the Commissioning activities, including safety risk identification, analysis and mitigation, which recognises and addresses the additional hazards associated with working in or adjacent to an operational rail environment (where necessary).

4.4 Stages of Commissioning and Operational Readiness

As a guideline, the Commissioning and Operational Readiness of the Works may consist of the following stages. For further detailed information refer to Annexure C.

<table>
<thead>
<tr>
<th>ID</th>
<th>Stage</th>
<th>Description</th>
<th>By</th>
<th>Requirement</th>
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<tr>
<td>1</td>
<td>Factory acceptance tests</td>
<td>Element and system testing prior to delivery to Site</td>
<td>Contractor</td>
<td>Certification by Contractor, with an opportunity for the Principal’s Representative to witness.</td>
</tr>
<tr>
<td>ID</td>
<td>Stage</td>
<td>Description</td>
<td>By</td>
<td>Requirement</td>
</tr>
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<td>-----</td>
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<td>-----------------------------------------------------------------------------</td>
<td>------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2</td>
<td>Installation / operational checks</td>
<td>Covers all tests and checks with installation of elements of the Works.</td>
<td>Contractor</td>
<td>Certification by Contractor, with an opportunity for the Principal's Representative to witness.</td>
</tr>
<tr>
<td>3</td>
<td>Site acceptance tests</td>
<td>Covers a final inspection, testing, Commissioning and validation of individual systems.</td>
<td>Contractor</td>
<td>Certification by Contractor, with an opportunity for the Principal's Representative to witness.</td>
</tr>
<tr>
<td>4</td>
<td>System integration tests and Commissioning</td>
<td>Covers testing, Commissioning and validation of interdependent systems and related systems including across interfaces with work of Other Contractors.</td>
<td>Contractor and Other Contractors</td>
<td>Certification by Contractor, with an opportunity for the Principal's Representative to witness.</td>
</tr>
<tr>
<td>5</td>
<td>Integration with RailCorp Network</td>
<td>Covers integration of systems into the existing RailCorp Network.</td>
<td>Contractor, Other Contractors and RailCorp as operator/operator/owner</td>
<td>Certification by Contractor, with an opportunity for the Principal's Representative to witness.</td>
</tr>
<tr>
<td>6</td>
<td>Acceptance tests</td>
<td>Covers acceptance tests to validate systems.</td>
<td>Contractor, Other Contractors and RailCorp as operator/operator/owners</td>
<td>Certification by Contractor, with an opportunity for the Principal's Representative to witness. All records and documentation provided and certified.</td>
</tr>
<tr>
<td>7</td>
<td>Accreditation of new infrastructure</td>
<td>Involves provision by Contractor of comprehensive documentation to enable RailCorp as owner/operator to seek and obtain amendment to its existing accreditation to allow for the incorporation of the new infrastructure provided under this Contract.</td>
<td>Contractor, Other Contractors and RailCorp as operator/operator/owners</td>
<td>All records and documentation provided and certified.</td>
</tr>
<tr>
<td>8</td>
<td>Pre-commercial operations and RailCorp staff training</td>
<td>Involves the Works operating on the network to enable owner/operator staff training to be completed and systems to be stabilised.</td>
<td>RailCorp as operator/operator and Contractor</td>
<td>Contractor to provide attendance and maintenance accompanied by RailCorp staff as part of the requirements for training and handover to Principal and operation.</td>
</tr>
</tbody>
</table>

TfNSW Standard Requirements
TSR 01 - Commissioning and Operational Readiness

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5  Operational Readiness

5.1  Operational Readiness Plan (ORP)

The Principal will prepare an "Operational Readiness Plan" or "ORP" for the project based on TfNSW Operational Readiness Plan (4TP-SD-033).

5.2  Operational Readiness Management Team (ORMT)

The Principal will establish an "Operational Readiness Management Team" or "ORMT" whose membership will include representatives of the Principal, the owner/operator, the Principal's technical advisors, the Contractor and Other Contractors. The Contractor must ensure that representatives of the Contractor and Other Contractors that the Principal nominates for the membership of the ORMT are available as required by the Principal.

The Contractor must:

(a)  participate in the ORMT meetings and processes;
(b)  provide information as required to facilitate Operational Readiness and the activities of the ORMT; and
(c)  undertake activities identified by the ORMT that are required to enable the Works to achieve a standard of Operational Readiness.

A generic schedule of Operational Readiness activities is included in TfNSW Operational Readiness Plan (4TP-SD-033) to assist the Contractor in preparing the required information for the specific Operational Readiness activity schedule for the project.

6  Supply of Items for Operational Readiness

6.1  Spares

The Spares Schedule provided by the Contractor in accordance with TSR A1 will be reviewed by the Principal's Representative and adjusted as required.
If the Principal chooses to procure spares from the Contractor, they must be delivered suitably packaged for storage and handling. The Contractor must deliver the spares to locations (within the Sydney metropolitan region) to be nominated by the Principal’s Representative.

6.2 Special Tools, Facilities and Equipment

6.2.1 Equipment to be Provided

The Contractor must provide, at its cost, one set of the range of special tools, facilities and equipment required by the Principal, following the submission and review of the recommended Schedule of Special Tools, Facilities and Equipment in accordance with TSR A1. The special tools, facilities and equipment so provided, must be suitably packaged for storage and handling.

6.2.2 Software Support

The Contractor must provide two sets of all hardware and software, and all associated information and manuals required, to allow the owner or operator to modify and/or maintain the software components developed or modified specifically for the Works. This must include software descriptions, any special equipment, cables, interfaces, documentation and tools required to program, download or upload data or software from/to equipment.

6.3 Training

The Contractor must develop and provide a program of appropriate training for operations and maintenance personnel. This training must cover the operation and maintenance of all assets provided as part of the Works that are not already in common use within the RailCorp CityRail network or region(s) for the location of the Works. The training must include specific ‘train the trainer’ courses and material.

The Contractor must provide to the Principal’s Representative three full sets of training aids and material for the Principal’s use in future training. All training aids and material must be of a good commercial standard and appropriate for the training to be conducted.

Personnel nominated by the Principal’s Representative for training will be appropriately qualified to receive the specialised training required on the relevant systems.

The training must be linked to the Asset Management Information documentation developed in accordance with TSR A1, and must cover the role of RailCorp in the operation of the Works.

The Contractor must provide people to conduct all training who are appropriately skilled, qualified, experienced and competent in the field involved, and who have completed formal training in instruction techniques.

Scheduling of training courses must take into account the possibility that some trainees will be required to attend more than one course.

The Principal’s Representative may direct training courses for additional personnel, and/or for new or modified equipment, at any time during the training period.

Training will be conducted on site wherever possible. When training is provided off-site, it must be provided in the Sydney metropolitan region. Where access to particular equipment is required,
training must be undertaken on equivalent duplicate equipment to that in the Works. Off-site training must be supplemented with visits to the applicable installed system on site.

The Contractor must keep a register of attendance at training. These records must be submitted to the Principal's Representative at completion of the training.
ANNEXURE A – Additional Project Requirements
Annexure A - Additional Project Requirements

01 Building Certification (Clause 2.1)
Delete clause 2.1(b)

02 Construction Compliance with Design (Clause 4.2)

<table>
<thead>
<tr>
<th>Inspection and testing must include certification of compliance with Design Documentation by the design consultants (Note: “Yes” applies if “Applies?” is left blank)</th>
<th>Applies?</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Mentioned in TSR 01 Clause 4.2</td>
<td></td>
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</tbody>
</table>
List of Reference Documents

Environmental Planning and Assessment Act 1979
Environmental Planning and Assessment Regulation 2000
Disability Discrimination Act 1992
Disability Standards for Accessible Public Transport 2002
Building Code of Australia
TfNSW Building Certification Procedure (4TP-PR-184)
TfNSW Commissioning Management Plan (4TP-SD-034)
TfNSW Operational Readiness Plan (4TP-SD-033)
Commissioning and Operational Readiness Stages

Stage 1: Factory Acceptance Testing
Equipment items and systems must be thoroughly tested by the Contractor at the vendor's facilities prior to dispatch to Site for installation. Specific "Factory Acceptance Test" or "FAT" procedures and ITPs in accordance with TSR Q1, must be developed by the Contractor to record the results. These documents must be submitted to the Principal’s Representative for review in accordance with the requirements set out in the Contract and at least 6 weeks prior to a FAT. Selected FATs will be witnessed by specialist engineering representatives from the Principal and RailCorp. The Contractor must issue formal notification to the Principal's Representative at least two weeks before a FAT.

Stage 2: Installation / Operational Tests
Installation and operational tests must be carried out by the Contractor during and post the installation of individual subsystem and system components. Such tests will enable early identification and rectification of design and installation errors, prior to system site acceptance tests. The scope and results of the tests must be captured in the Contractor's construction ITPs.

Stage 3: Site Acceptance Tests
The Contractor must commence a "Site Acceptance Test" or "SAT" following completion of the installation of a system or a separable part thereof.

The following prerequisites must be met and documented by the Contractor, and accepted by the Principal’s Representative prior to the commencement of SAT for any system or subsystem:
(a) the construction and installation works are completed for that system and relevant construction ITPs are signed and closed;
(b) the upstream parts of the Works are operable and available, e.g. electrical power supply is commissioned before mechanical systems are tested;
(c) results for tests carried out earlier: (such as FAT and post-installation tests) are certified and submitted to the Principal's Representative;
(d) Commissioning procedures and ITPs are finalised and approved by the Principal;
(e) design documentation is updated to reflect 'as constructed' status of Works;
(f) draft Operation and Maintenance Manuals are prepared in accordance with TSR A1 and submitted to the Principal's Representative for review in accordance with the requirements set out in the Contract;
(g) safety measures are identified, implemented and verified by the Contractor;
(h) site personnel are notified of the scope and area of the testing activity; and
(i) all parties involved in witnessing testing are formally notified in advance.

The SAT covers testing, Commissioning and validation of individual systems by the Contractor. The completion of this stage must be certified by the Contractor. This activity is to be carried out on system-by-system basis.

TfNSW Standard Requirements
TSR 01 Commissioning & Operational Readiness
Annexure C - Commissioning and Operational Readiness Stages

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Specific SAT procedures and ITPs to record the results must be developed by the Contractor and submitted to the Principal’s Representative for review in accordance with the requirements set out in the Contract and at least 6 weeks prior to the SAT.

Selected SATs will be witnessed by the specialist engineering representatives from the Principal and RailCorp. The Contractor must issue formal notification to the Principal’s Representative at least two weeks before a SAT is conducted. The Principal’s Representative will advise the Contractor if the Principal’s and RailCorp’s representative(s) intend to attend a SAT. If the Principal confirms attendance, the SAT must not proceed unless the Principal’s and RailCorp’s representatives are present.

**Stage 4: System Integration tests and Commissioning**

The Works must be tested by the Contractor across interfaces to demonstrate they operate in an appropriate manner between the systems, subsystems, equipment and services provided by the Contractor and by others excluding RailCorp. The Contractor must define the systems interfaces and the scope of works for the Contractor’s interconnected system tests.

Specific “System Integration Test” or “SIT” procedures and ITPs to record the results must be developed by the Contractor and submitted to the Principal’s Representative for review in accordance with the requirements set out in the Contract and at least 6 weeks prior to a System Integration Test and Commissioning event.

Selected SITC will be witnessed by specialist engineering representatives from the Principal and RailCorp. The Contractor must issue formal notification to the Principal’s Representative at least two weeks before an IST is conducted. The Principal’s Representative will advise the Contractor if the Principal’s and RailCorp’s representative(s) intend to attend a SITC. If the Principal confirms attending, the SITC must not proceed unless the Principal’s and RailCorp’s representatives are present.

The completion of Stage 4 must include the following:

- Building Code of Australia (BCA) compliance certificate covering construction and Commissioning of the Works; to be provided by an accredited BCA certifier employed by the Contractor;
- Disability Discrimination Act (DDA) compliance certificate issued by an accredited Access Consultant employed by the Contractor;
- Fire & Life Safety (F&LS) Engineer certificate issued by an accredited Fire Engineer employed by the Contractor; and
- Planning Approval conditions related to construction and Commissioning activities by the Contractor must be closed-out and accepted by the Principal’s Representative.

In cases where activities and conditions related to BCA and F&LS are outside of the Contractor’s control and cannot be completed at the time of certification, the certificates with noted non-compliances will be accepted by the Principal’s Representative.

**Stage 5: Integration with RailCorp Systems**
The Works must be integrated with the existing RailCorp rail systems. It will be a joint Commissioning task that involves the Contractor and RailCorp resources. The integration will be carried out following completion and certification of Stage 3 and 4 by the Contractor.

The Contractor must develop specific procedures and ITPs for Stage 5. The provision of inputs/information from RailCorp necessary to prepare Stage 5 test procedures and ITPs will be coordinated by the Principal’s Representative. The Stage 5 completion must be certified by the Contractor based on the joint tests records countersigned by RailCorp.

Stage 6: Acceptance Tests
A series of acceptance tests must be carried out as a joint activity between the Contractor and RailCorp to demonstrate the integrated operation of all rail infrastructure and station systems and facilitate acceptance of these systems by the Principal. The scope of these tests must be developed by the Contractor in close cooperation with RailCorp. Specific acceptance test documentation must be developed by the Contractor from templates and examples agreed with the Principal’s Representative.

All of the outstanding design, construction and commissioning conditions must be resolved by the Contractor and submitted to the Principal for the final closure.

The Contractor must rectify all Defects that may affect safe and reliable operation of railway. The rail systems and services must be checked by the Contractor for correct, reliable operation and adjusted/repai red, as required.

Stage 7: Accreditation of New Infrastructure
RailCorp will be required to submit an operations and maintenance Safety Assurance Report which includes safety and non-safety acceptance / assurance plans and processes to the Independent Transport Safety Regulator to obtain the amendment of accreditation to integrate the new facilities into its network. The Contractor is required to provide all necessary inputs to the design, construction and commissioning Safety Assurance Reports and support the Principal in development and submission of these documents. The timing for development of the Principal Safety Assurance Reports will align with the design, construction and commissioning phases of the project as detailed in TRS T1. Operations and maintenance Safety Assurance Report will be developed by RailCorp following submission of the final design, construction and commissioning Safety Assurance Reports by the Principal.

Stage 8: Pre-commercial Operations and RailCorp Staff Training
The Contractor must assist in the operation of the rail systems and services to enable pre-commercial operation of trains by RailCorp and training of RailCorp operations staff inclusive of ‘train the trainer’ in accordance with TSR O1 Clause 7.

The Contractor must support RailCorp in training of its maintenance personnel in the maintenance responsibilities by RailCorp maintainer(s).

RailCorp is responsible for developing and leading the program to liaise with the “Emergency Services Organisations” or “ESOs” such as Fire, Police and Ambulance. The Contractor must assist in ESO project familiarisation and training during emergency exercises. The Contractor’s role will include the following:
facilitate ESO familiarisation tours and site inductions;

facilitate ESO meetings with RailCorp including provision of amenities such as toilet and meal room;

identification and registration of ESO exercises participants; and

assist with desktop and field exercises.

Stage 9: Completion and Hand-over of Works to the Principal

The Contractor must assist the Principal in the formal acceptance and sign-off of the rail systems and services by RailCorp Chief Engineers.

RailCorp will assume operation of the facilities inclusive of all rail systems and services.

Stage 10: Setting to Work for Commercial Operation

The Contractor must provide assistance to the Principal in the finalisation and closure of the project documentation by others. The Contractor must assist RailCorp in the identification of all assumptions, constraints and operational requirements arising from the design. This information will form an input to operations procedures and emergency response plans by RailCorp.

The Contractor will provide inputs required to close operational Planning Approval conditions and procedural F&LS requirements related to the operation and maintenance of the Works.
TfNSW Standard Requirements
TSR – A1 Asset Management Information

50-FT-183/1.0

Standard Applicable to: Transport Projects Division

TPD Quality Management System

Status: Draft
Division: Transport Projects
Version: 1.0
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Review date: 31 January 2013
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### 6 AMI Requirements for Non-RailCorp Related Assets

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ANNEXURE A – Additional Project Requirements

ANNEXURE B – List of Reference Documents

ANNEXURE C – RailCorp Equipment Registers
1 GENERAL

TSR A1 describes the requirements for the production, compilation and submission of "Asset Management Information" or "AMI" so as to enable and ensure the efficient operation and maintenance of the assets created by the Works.

1.1 User instructions

For a contract other than an Alliance contract, the definitions used in this TSR A1 have the meanings as set out in the Contract and in TSR Prelude.

For an Alliance contract, the definitions used in this TSR A1 have the meanings as set out in the Project Alliance Agreement and in TSR Prelude as well as below. Where a defined term below conflicts with a defined term in TSR Prelude the defined term below will apply:

(a) "Contract" means "Agreement".
(b) "Contractor" means "Alliance".
(c) "Contractor's Activities" means "Alliance Activities".
(d) "Principal" means "TfNSW".
(e) "Principal's Representative" means "TfNSW Representative".
(f) "Temporary Works" means "Alliance Temporary Works".
(g) "Works" means "Alliance Works".

2 ASSET MANAGEMENT INFORMATION OVERVIEW

All AMI, including manuals, reports, drawings, specifications, designs, surveys, plans, maps, illustrations, schedules, certificates, warranties, test results, commissioning data and the like, must comply with the requirements of this TSR A1 and meet the requirements set out in the reference documents listed in TSR A1 Annexure B.

The Contractor must provide AMI documentation with respect to all and any parts of the Works and each of the assets delivered as part of the Works. Where directed by the Principal's Representative, the Contractor must incorporate material provided by others into the AMI.

The Contractor must submit the AMI to the Principal's Representative in accordance with TSR A1 Clauses 3 and 4.

TSR A1 Clauses 5 describes the AMI requirements for RailCorp related assets. TSR A1 Clause 6 describes the AMI requirements for non-RailCorp related assets.

3 AMI DELIVERY PLAN

The Contractor must prepare and implement an "AMI Delivery Plan" which sets out the Contractor's approach to the collection, production and submission of AMI documentation. In particular, the plan must address the timely collection of information, the accuracy of detail and the progressive submission of documents. The AMI Delivery Plan must include:

(a) a complete list of the Contractor's AMI deliverables, including documents provided by Subcontractors;
(b) a hierarchical structure diagram detailing how all AMI documents are to be delivered and their relationships to each other (see Figure 1);

![Hierarchical Structure Diagram]

Figure 1: Example hierarchical structure diagram

(c) a list of the systems, sub-systems, geographic areas and other key elements that make up the Contract;

(d) the Contractor's proposed project-specific document metadata structure for each document delivery stage, work discipline, work location and document type as required by TSR A1 Clause 4.3;

(e) a document numbering convention that complies with TSR A1 Clause 4.2.2;

(f) a drawing plan for the production and submission of drawings (including Work-As-Executed drawings), including a sample for different systems and types for review by the Principal's Representative prior to production of actual drawings;

(g) a schedule of proposed submission dates for both interim and final documents;

(h) a list of the components of the final AMI that will be provided to the Principal's Representative in conjunction with any staged handover, or upon Completion of the Works or any Portion, so as to enable all the assets included in the staged handover or upon Completion of the Works or any Portion to be operated and maintained by the asset owner;

(i) processes and procedures to respond to any comments made by the Principal's Representative on the staged submissions of the AMI;

(j) processes and procedures to ensure that information is collected progressively as it becomes available;

(k) identification of the resources to be used to collect and produce the AMI documentation;

(l) reference to the asset owner's and TfNSW's standards that will be followed in document production; and

(m) the proposed process and program for validation of documents to be provided under this Contract as required in TSR A1 Clause 4.4.
The AMI Delivery Plan must incorporate all requirements of this TSR A1. The AMI Delivery Plan must be submitted to the Principal’s Representative for review in accordance with the requirements set out in the Contract including TSR Prelude.

The Contractor must submit the AMI documentation to the Principal’s Representative in accordance with the AMI Delivery Plan, and must:

(n) regularly update the AMI Delivery Plan so as to maintain a current list of AMI deliverables; and

(o) provide adequate resources to collect, produce and submit AMI documentation.

4 AMI SUBMISSION

4.1 Timeframe for Submission

The Contractor must submit the AMI in accordance with the AMI Delivery Plan for review by the Principal’s Representative in accordance with the requirements set out in the Contract at least at the stages listed in TSR A1 Annexure A.

The Principal’s Representative may (but is not obliged to) provide the Contractor with comments on the AMI.

The Contractor must review and act on any comments made by the Principal’s Representative on, and correct all deficiencies in, the staged submission of the AMI.

4.2 AMI Documentation Format

4.2.1 General

The Contractor must:

(a) submit all AMI documentation in digital form as individual documents (computer files); and

(b) submit in hard copy format the AMI documents listed in TSR A1 Annexure A.

4.2.2 Document Numbering

The Contractor must produce a coherent system of document numbering for the AMI as appropriate to its content.

The numbering system for all documents must be approved by the Principal’s Representative in accordance with TfNSW CAD Protocols (4TP-ST-084).

The TfNSW project descriptors and drawing band numbers will be provided by the Principal’s Representative upon request by the Contractor.

4.2.3 Document Revision Numbering

Revision numbers for draft versions (e.g. Design Documentation, Approved For Construction) of documents must be A, B, C, etc.

Revision numbers for final (Work-As-Executed) versions of documents must be 1, 2, 3 etc. with no decimal places.
4.2.4 Document Identification

Each document delivered, must, as a minimum, be identified in the following ways:

(a) by the document number and revision number in the electronic file name, separated by a unique divider (e.g. "-" or ".") that is not used elsewhere in the file name;
(b) by the document number and a fully descriptive title on the front page of the document; and
(c) by the above document number and revision number on all pages of the document.

Where large numbers (more than 100) of documents are delivered on one subject (e.g. certificates, concrete records, etc.) a separate document providing an index to these documents must be provided.

4.2.5 Document File Types

The Contractor must:

(a) submit each document in its own file, identified in accordance with TSR A1 Clause 4.2.4. Multiple documents must not be contained in a compressed (zip) file;
(b) submit the documents in an acceptable format for the document type. Acceptable electronic formats are Microstation CAD files, TIF format image files, JPG format photographs, Microsoft Excel spreadsheets, Microsoft Word processing files, Microsoft PowerPoint presentation files, Microsoft Access relational data base files and Adobe Acrobat portable document format (PDF);
(c) submit drawings in the format required by TfNSW CAD Protocols (4TP-ST-084);
(d) submit the native ‘updateable’ files for requested documents, as part of the final AMI, including:
   (i) drawings (including Work-As-Executed drawings);
   (ii) Technical Maintenance Plans;
   (iii) Asset Registers and Equipment Registers;
   (iv) Service Schedules;
   (v) failure modes, effects, and criticality analysis ("FMECA") and/or reliability availability maintainability and safety ("RAMS") calculations;
   (vi) O&M Manuals;
   (vii) equipment software and configuration files (including software programs necessary to access such files);
   (viii) training program; and
   (ix) forms required for maintenance activities; and

(e) include all required data within the designated file (whether view file or native file). Links between files are not acceptable as these links are not always transferable to other document management systems.

4.2.6 Document File Sizes

Document files must not exceed 10MB in size. Individual files can be compressed (zipped) to achieve this size.
Where documents exceed 10MB they should be divided into sub-documents and sequentially numbered accordingly (e.g. SWRL-GD-SE12345-001, 002, 003 etc).

4.2.7 Hard Copy Format

For any hard copy format documents, the Contractor must:

(a) bind or contain each hard copy of the AMI documentation in white, durable, three ring hard cover binders, not greater than 70mm thick, with the facility, equipment or plant identification permanently marked on the spine and outside cover with clear protection on the covers;

(b) where multiple binders are utilised, include a complete table of contents for the entire AMI documentation in each binder, clearly indicating which sections are located in each folder. The cover page for each binder must be inserted as the first page within each folder, and a copy inserted into the front cover of the folder;

(c) limit filling of binders to 60% of binder capacity;

(d) divide sections with indexed plastic divider sheets and index the contents;

(e) protect vulnerable and much used pages with plastic covers;

(f) print drawings in colour on A3 size paper. Where drawings are not legible on A3 size paper, drawings are to be printed in colour on their original size paper;

(g) print text on A4 size paper on one side only, in a clear typeface with a 35mm margin for binding;

(h) where diagrams forming part of the AMI are larger than A4 size, print the diagrams on A3 size paper and fan fold them to align to A4 size; and

(i) print illustrations on A3 size paper folded to A4 size and located at the rear of the text, but small illustrations, to highlight matters, may be located in the text.

4.3 Document Transmittals

The Contractor must:

(a) identify in the instrument of transmittal, as a minimum, a unique transmittal identifier, a description of the content of the disk and/or hardcopy documentation supplied, the date of transmission and the sender;

(b) adhere to any standard transmittal formats supplied by the Principal’s Representative;

(c) deliver documents using an acceptable electronic media for data exchange. Unless otherwise agreed with the Principal’s Representative, these are CD and/or DVD disks formatted to suit Microsoft Windows based PC computers, and any web based document management system adopted by the Principal. The use of electronic mail (Email) to deliver documents is not acceptable;

(d) transmit CAD files in accordance with the requirements of TfNSW CAD Protocols (4TP-ST-084); and

(e) deliver 2 copies of any CD/DVD and 1 original and 3 copies (1 of which is unbound) of any hardcopy documents.

The document transmittals must, as a minimum, provide the following metadata for each document:

(f) document number;
The Contractor must further identify each document submitted with appropriate metadata as required for the project, defined by the Principal’s Representative, based on any document management system in use by the Principal (see TSR Prelude) and/or TfNSW CAD Protocols (4TP-ST-084).

The metadata for each document must be provided on document transmittals. A Microsoft Excel formatted electronic copy of the transmittal template will be provided by the Principal’s Representative upon request by the Contractor.

### 4.4 Validation of Content

The AMI documentation provided must be validated by the Contractor prior to any staged handover, commissioning and Completion of the Works or any Portion, in sufficient time for it to be used as part of the training provided by the Contractor.

The Contractor must submit to the Principal's Representative the proposed process and program for validation of documents to be provided under this Contract, in accordance with the Contract including TSR T1. The validation process must include participation by personnel nominated by the Principal's Representative.

### 5 AMI CONTENT FOR RAILCORP RELATED ASSETS

#### 5.1 General

This TSR A1 Clause 5 describes the AMI requirements for RailCorp related assets.

The AMI must include the following documentation:

- (a) A project description and a description of the scope of the Works delivered ("Project Description");
- (b) A schedule of the contact details for all the Contractor's designers and Subcontractors involved in the design, construction, certification and commissioning of the Works ("Schedule of Contract Details");
- (c) Asset Registers and Equipment Registers of the individual assets created for the Works;
- (d) Operation and Maintenance Manuals providing a description of the location, functions performed, and operating instructions for all equipment, systems and geographical areas;
- (e) A "Schedule of Finishes" containing the finishing materials installed on each asset, with descriptive details, location, manufacturer, colour, cleaning instructions, warranties, maintenance requirements and contacts for supply/repairs;
- (f) Warranties and guarantees;
- (g) Technical Description and Operating Guides;
- (h) Compliance certificates and records, including a register of the same;
- (i) Technical Maintenance Plans;
Work-As-Executed drawings including design drawings, shop drawings, survey drawings, photographic records and technical reports, specifications, plans and schedules;

a schedule of spare parts or components that it is recommended the operator should keep in stock ("Spares Schedule");

test certificates;
a Schedule of Special Tools, Facilities and Equipment; and

training materials.

5.2 Project Description and Scope of the Works

The Project Description must contain:

(a) an outline of the scope of the Works;
(b) details of the major stakeholders;
(c) datelines;
(d) any new or altered services or systems included; and
(e) any other relevant information.

If the Works abut any existing assets, it must be made clear that these assets are not included in the scope of the Works.

Where the size of the Works only warrants the Contractor preparing one O&M Manual, this information can be included in Section 1 of that manual.

5.3 Schedule of Contact Details

The Schedule of Contract Details must provide contact details for all Subcontractors, including the Contractor's designers. Details must include:

(a) the names of all designers and the corresponding initials utilised on drawings;
(b) the correct name of the organisation, including the ABN number;
(c) the role of the organisation under the Contract;
(d) address, telephone and fax numbers for the organisation;
(e) primary contact name within the organisation for enquiries relating to the Works; and
(f) website address of the organisation (if any).

Where the size of the Works only warrants the Contractor preparing one O&M Manual, this information can be included in Section 1 of that manual.

5.4 Asset Registers and Equipment Registers

5.4.1 Asset Register

The Contractor must develop and implement a comprehensive data collection system for all asset components ("Asset Register"), which includes a digital copy in an acceptable relational database format. The information included in the Asset Register must, as a minimum, include all the information shown in the Principal's Asset Register template. A Microsoft Excel formatted electronic copy of the Principal's Asset Register template will be provided by the Principal's Representative upon request by the Contractor.
The Asset Register must provide details of all assets provided as part of the Works other than architectural floor, wall and ceiling finishes which must be included in the Schedule of Finishes prepared by the Contractor.

The Asset Register must be divided into groups containing items that are commonly grouped together. For example, electrical distribution boards, light fittings, lifts and escalators, plumbing fittings, public address system, fire detection equipment, fire suppression equipment. There must be an index to the groups in the front of the Asset Register.

5.4.2 Existing RailCorp Equipment Registers to be updated

In addition to the requirements of TSR A1 Clause 5.4.1, the Contractor must also update the existing RailCorp “Equipment Registers” nominated for each system/element specified in TSR A1 Annexure A. The purpose of the Equipment Registers is to provide information to RailCorp to enable RailCorp to update its maintenance databases as changes are made to the existing rail network.

Equipment Registers must include information on:
(a) new assets to be created;
(b) existing assets to be updated (i.e. assets being modified); and
(c) existing assets to be deleted (i.e. assets being decommissioned).

A summary of the Equipment Registers used by RailCorp and a description of the Contractor’s obligations to provide information to RailCorp to enable RailCorp to update these Equipment Registers is provided in TSR A1 Annexure C.

5.5 Operation and Maintenance Manuals

5.5.1 General

The Contractor must provide an “Operation and Maintenance Manual” or “O&M Manual” for every key element of the Works (e.g. system, sub-system, geographic areas, etc.), as outlined in the AMI Delivery Plan. As a minimum, the Contractor must provide an individual O&M Manual for each of the elements listed in TSR A1 Annexure A.

Each O&M Manual must be written from the perspective of the maintainer looking to research a 'single system'. In the electronic documentation environment, the O&M Manual must provide a central document that provides cross references to all other relevant documentation for the system. O&M Manuals must be written in clear concise English and in the present tense.

5.5.2 O&M Manual Scope & Structure

The Contractor must prepare each O&M Manual using the standard format as detailed in TSR A1 Clause 5.5.4. No section of this standard format is to be omitted. Where a section is not applicable to a particular asset/element, the words ‘Not Applicable’ or similar must be included under the section heading.

Where appropriate, detailed information (e.g. for a Technical Maintenance Plan) can be provided in a separate document. This separate document must also adhere to the contractual requirements for AMI and must be fully cross-referenced from the O&M Manual.

Where references to other documents are included, the reference must include the reference document number and the location within that document where the relevant information can be found.
5.5.3 Inclusion of Drawings and Photographs

Figures and pictures must be included in the O&M Manuals where this is appropriate. For example, figures and pictures must be used to:

(a) present information which is difficult to describe by text alone; and
(b) provide identification of tools, parts and other such items.

Halftone figures (photographs), where used, must be suitable for electronic scanning and photocopying without loss of detail.

5.5.4 Standard O&M Manual Content

The O&M Manual is to be presented in the following standard sections.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>Front Cover</td>
</tr>
<tr>
<td></td>
<td>The front cover of the O&amp;M Manual must contain:</td>
</tr>
<tr>
<td></td>
<td>- The RailCorp logo (no TfNSW or supplier logo);</td>
</tr>
<tr>
<td></td>
<td>- The Project name;</td>
</tr>
<tr>
<td></td>
<td>- The document description consisting of the key element description (e.g. asset type or discipline) and the words &quot;Operations and Maintenance Manual&quot;; and</td>
</tr>
<tr>
<td></td>
<td>- The document number.</td>
</tr>
<tr>
<td>General</td>
<td>Page Headers</td>
</tr>
<tr>
<td></td>
<td>The page headers of the O&amp;M Manual must contain the project name and the document description.</td>
</tr>
<tr>
<td>General</td>
<td>Page Footers</td>
</tr>
<tr>
<td></td>
<td>The page footers of the O&amp;M Manual must contain:</td>
</tr>
<tr>
<td></td>
<td>- The document number and revision number; and</td>
</tr>
<tr>
<td></td>
<td>- Page numbers in the format &quot;Page x of y&quot;. Page numbers must be continuous throughout the document and not reset at section breaks.</td>
</tr>
<tr>
<td>General</td>
<td>Revision History</td>
</tr>
<tr>
<td></td>
<td>The revision history of the O&amp;M Manual must be included in a &quot;Revision Control Table&quot; at the start of the manual. The revision control table must provide, for each revision:</td>
</tr>
<tr>
<td></td>
<td>- Revision letter or number with no decimal places;</td>
</tr>
<tr>
<td></td>
<td>- Date of revision;</td>
</tr>
<tr>
<td></td>
<td>- Summary of change(s) in comparison to the previous version.</td>
</tr>
<tr>
<td>General</td>
<td>Glossary of Terms</td>
</tr>
<tr>
<td></td>
<td>A glossary of terms for each O&amp;M Manual must be included at the start of the manual, including all acronyms and technical terms listed in the manual.</td>
</tr>
<tr>
<td>General</td>
<td>Table of Contents</td>
</tr>
<tr>
<td></td>
<td>A table of contents, listing sections and sub-sections of the O&amp;M Manual</td>
</tr>
<tr>
<td>Section 1</td>
<td>Purpose of the O&amp;M Manual</td>
</tr>
<tr>
<td></td>
<td>- Brief description of the O&amp;M Manual's purpose, structure and content;</td>
</tr>
<tr>
<td></td>
<td>- Identification of asset owner, Contractor, Subcontractors and other involved parties; and</td>
</tr>
<tr>
<td></td>
<td>- Tabulation of Subcontractors and utilities/service providers, together with contact details for each significant element of the assets.</td>
</tr>
<tr>
<td>Reference</td>
<td>Description</td>
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</tr>
<tr>
<td><strong>Section 2</strong></td>
<td><strong>Description of the System</strong></td>
</tr>
<tr>
<td></td>
<td>- An overview of sufficient detail to provide the reader with immediate understanding of the whole of the system;</td>
</tr>
<tr>
<td></td>
<td>- A location plan / diagram with introductory text to identify the main components of the system and the interfaces;</td>
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<tr>
<td></td>
<td>- Detailed description of each of the elements of the assets covered by the O&amp;M Manual to complement the location plan, including all equipment, components, systems and items, with a tabulation of dimensions, performance ratings, and asset number, information and attributes.</td>
</tr>
<tr>
<td><strong>Section 3</strong></td>
<td><strong>System Interfaces</strong></td>
</tr>
<tr>
<td></td>
<td>- Details of all systems with which this system interfaces;</td>
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<tr>
<td></td>
<td>- Description of how these interfaces operate (i.e. how this system works with / impacts on the other systems);</td>
</tr>
<tr>
<td></td>
<td>- Impacts of system failures either by this system or by other systems, impacting on this system;</td>
</tr>
<tr>
<td></td>
<td>- Summary diagrams of the various utilities and services such as communication services, electrical services, drainage, fire services, water treatment and utilities, gas, sewer, stormwater, water and the like; and</td>
</tr>
<tr>
<td></td>
<td>- References of where further information for the interfacing systems can be found.</td>
</tr>
<tr>
<td><strong>Section 4</strong></td>
<td><strong>Detailed Technical Description and Operating Guides</strong></td>
</tr>
<tr>
<td></td>
<td>- Detailed technical description of the asset/system, aimed at the operators, and covering each element of the system, including all equipment, components, systems and items as described in TSR A1 Clause 5.8.1; and</td>
</tr>
<tr>
<td></td>
<td>- References to relevant Operating Guide(s) (refer TSR A1 Clause 5.8.2).</td>
</tr>
<tr>
<td><strong>Section 5</strong></td>
<td><strong>Safety and Environment</strong></td>
</tr>
<tr>
<td></td>
<td>- Consolidation of all relevant safety issues associated with the system (may be duplicating content of supplier/manufacturer manuals located elsewhere in the manual), noting all hazards and highlighting specific risks;</td>
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<tr>
<td></td>
<td>- A tabulation or listing of emergency contact organisations, personnel or positions, phone/fax numbers and operational procedures relating to emergencies; and</td>
</tr>
<tr>
<td></td>
<td>- Suppliers' material safety data sheets to be provided.</td>
</tr>
<tr>
<td><strong>Section 6</strong></td>
<td><strong>FMECA/RAMS</strong></td>
</tr>
<tr>
<td></td>
<td>- Statement of whether FMECA was carried out. Explanation of the basis for original design and equipment selected for installation (e.g. performance requirements); and</td>
</tr>
<tr>
<td></td>
<td>- Statement of whether RAMS was carried out. Reports are to include actual calculations.</td>
</tr>
<tr>
<td><strong>Section 7</strong></td>
<td><strong>Equipment</strong></td>
</tr>
<tr>
<td></td>
<td>RailCorp Equipment Registers prepared in accordance with RailCorp's AMI requirements as described in TSR A1 Clause 5.4.2.</td>
</tr>
</tbody>
</table>
### Section 8 - Spares

Detail the methodology used to develop the Spares Schedule (e.g., based on FMECA/RAMS, manufacturers’ recommendations, etc.) and the operating period addressed by the spares as described in TSR A1 Clause 5.12.

Include details of:
- The level at which spares are to be held (e.g., component, assembly, sub-system or system level);
- Expected failure rates;
- Maintenance policies that the spares selection is based on;
- Expected procurement lead time;
- Ongoing availability of spares;
- Storage requirements, including storage environmental constraints such as temperature and humidity; and
- Spares list, divided into “General Spares” and “Insurance Spares” categories.

### Section 9 - Maintenance

- Comprehensive step by step instructions in preventative and corrective maintenance procedures, nominating the work to be carried out by qualified tradespersons and others, and the designated service periods, such as weekly, monthly, quarterly, semi annually, annually and the like. Where appropriate for the assets provided as part of the Works, RailCorp’s standard TMPs and Service Schedules are to be used (as described in TSR A1 Clause 5.10);
- Relevant maintenance standards;
- Maintenance instructions for each of the service periods subdivided into the following categories: Unit Running, Unit Stopped;
- Location of maintenance action (on-system, in workshop etc);
- Consumables and special tools required (as described in TSR A1 Clause 5.14);
- List of recommended greases and oils, stating quantities, methods and frequency for application;
- Troubleshooting instructions in tabular form listing “fault”, “possible cause” and “remedial action”, with testing regimes and instructions; and
- A Schedule of Finishes containing the finishing materials installed with descriptive details, location, manufacturer, colour, cleaning instructions, warranties, maintenance requirements and contacts for supply/repairs, as described in TSR A1 Clause 5.6.

### Section 10 - Training Program

- A program of appropriate training for operations and maintenance personnel developed in accordance with TSR O1;
- Train the trainer style manuals appropriate to the personnel associated with the operation and maintenance of the system; and
- If the training information included in the Operating Guide(s) (refer TSR A1 Clause 5.8.2) or suppliers'/manufacturers' manuals does not meet the requirement, then additional information is required.
<table>
<thead>
<tr>
<th>Section 11</th>
<th>Installation, Commissioning &amp; Overhauling</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Details of standards and procedures for mounting or erecting, wiring or setting up, and commissioning equipment;</td>
</tr>
<tr>
<td></td>
<td>All testing and commissioning certificates and all associated commissioning and test results issued in respect of the Works for the system/sub-system and equipment;</td>
</tr>
<tr>
<td></td>
<td>System configuration information, including protection settings for electrical equipment; and</td>
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<tr>
<td></td>
<td>Unless otherwise contained in the TMPs or Service Schedules, step by step instructions and procedures for complete overhauls, indicating those procedures to be carried out by qualified tradespersons, described under at least the following subheadings:</td>
</tr>
<tr>
<td></td>
<td>o Dismantling;</td>
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<tr>
<td></td>
<td>o Cleaning, inspection, repair and adjustment;</td>
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<tr>
<td></td>
<td>o Reassembly; and</td>
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<tr>
<td></td>
<td>o Final checks and unit running.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section 12</th>
<th>Manufacturer’s/Supplier’s Operation &amp; Maintenance Manuals, Equipment Warranties and Compliance Certificates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Manufacturer’s O&amp;M manuals (can be embedded in the main manual or delivered as a separate referenced document);</td>
</tr>
<tr>
<td></td>
<td>Relevant warranties and guarantees as required under the Contract for each major item of equipment. These must be made out to RailCorp in the form set-out in the Contract;</td>
</tr>
<tr>
<td></td>
<td>Compliance certificates as required by specific items of plant, equipment, works, etc (refer TSR A1 Clause 5.9).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section 13</th>
<th>Other Information</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Any relevant information not specifically covered in the previous sections.</td>
</tr>
</tbody>
</table>
Reference List

A reference list of all documents & drawings referred to in the body of the O&M Manual as well as those not specifically referenced but which are required to complete the documentation related to the O&M subject (e.g. asset). References must be listed in order of type and document number, and provide the title of each document.

Examples of contents are:
- Asset Registers/Equipment Registers;
- Calculations;
- Certificates, warranties and guarantees;
- Commissioning results;
- Drawings;
- Procedures;
- Quality forms and records;
- Reference manuals;
- Schedule of Finishes;
- Service Schedules;
- Software;
- Spares Schedule/bill of materials;
- Technical specifications and reports;
- TMPs; and
- Training manuals.

5.6 Schedule of Finishes

The Schedule of Finishes must include the following data for all internal and external architectural materials and finishes on the Works:

(a) description or name of material or finish;
(b) thickness/weight/gauge;
(c) profile or size;
(d) colour/finish details;
(e) manufacturer or supplier;
(f) cleaning and maintenance recommendations; and
(g) locations used.

Colours may be scheduled in a separate colour schedule.

A location schedule must be included so that the details of materials and finishes in each room or space or building component can be located on the Schedule of Finishes.

5.7 Warranties and Guarantees

This document must include all warranties and guarantees required by the Contract.

The warranties and guarantees must be arranged in a logical sequence and include an index.
5.8 Technical Description & Operating Guides

5.8.1 General
The Contractor must provide a detailed "Technical Description" of the asset/system which is aimed at the operators. This must include:

(a) a short description of all items in the system, even if it is a proprietary item, with relevant technical tables, a table of dimensions, performance ratings, etc;
(b) Operating Guides, procedures and principles for all of the assets;
(c) a basic working description of the asset/system, including novel features, any automatic control, and the operational purposes and functions of the various components and systems. If appropriate, this section can simply refer to the relevant section of the Operating Guide described in TSR A1 Clause 5.8.2;
(d) a location plan to identify and locate all elements of the system, or a written description if more appropriate;
(e) details of any utilities critical to the operation of the system and where necessary the isolation points; and
(f) for software oriented systems, functional specifications (hardware and software), systems programs, individual program modules, including flow charts and source codes, and the like.

5.8.2 Operating Guide and Supplier Manuals
The "Operating Guide(s)" must provide a description of each operating system, the function of the system, and day to day operating instructions for users.

Manuals and documents provided by suppliers and manufacturers may be used in conjunction with the O&M Manuals to help describe the equipment covered, provided they meet the general documentation standards required by this TSR A1 and are integrated into the O&M Manuals.

The Operating Guides must provide comprehensive details of technical information relevant to all elements of the asset/system with a step by step procedure which is arranged into sections which relate to, for example:

(a) safety procedures;
(b) operating limitations due to temperature, pressure and flow, or other relevant factors;
(c) checks before, and procedures for, equipment start-up, operations and shutdown;
(d) emergency shutdown and abnormal operation;
(e) full information on alarm and trip settings;
(f) links to inspection, servicing and maintenance schedules as defined in the TMP;
(g) component manuals covering maintenance and repair of all items of installed equipment;
(h) fault finding guides, for use at the operating maintenance level;
(i) illustrated parts catalogues;
(j) supply contract details (if applicable);
(k) name of supplier (if applicable);
The Operating staff.

As a minimum, the Contractor must provide individual Operating Guides for each of the systems listed in TSR A1 Annexure A.

The Operating Guide(s) must be completed two months prior (and as a condition precedent) to Completion of the Works or any Portion and will be utilised for training of RailCorp's operational staff.

5.9 Compliance Certificates and Records

Major compliance and certification documents must be provided, including but not limited to the following where applicable:

(a) Building Code of Australia (BCA) Compliance Assessment Report, BCA Design Certificate and BCA Compliance Certificate as defined in TfNSW Building Certification Procedure (4TP-PR-184);

(b) Disability Discrimination Act (DDA) Compliance Certificate as defined in TfNSW Building Certification Procedure (4TP-PR-184);

(c) Fire and Life Safety Brief;

(d) Fire and Life Safety Report which justifies any "Alternative Solutions" to BCA Performance Requirements;

(e) Fire Safety Certificate and all supporting assessments of Essential Fire Safety Measures; and

(f) Maintenance schedule for Essential Fire Safety Measures;

O&M Manuals must also contain a description of the quality assurance systems utilised by the Contractor and the location of all detailed test results, inspection and test plans and other quality assurance data.

The Contractor must provide the first registration certificate for every asset that requires annual or periodic registration (e.g. lifts). Registration certificates must be made out to RailCorp.

5.10 Technical Maintenance Plans

The Contractor must prepare a "Technical Maintenance Plan" or "TMP" for assets that are not part of the existing CityRail network. Examples of assets that will require a new TMP include assets that require type approval. The TMPs must be compatible with the RailCorp TMPs commonly in use and must be prepared in accordance with RailCorp Provision of Technical Maintenance Plans by External Organisations (ED-IGS-21). The Contractor is required to obtain existing TMPs used by RailCorp and agree with RailCorp on where new or updated documents are required.

The TMPs must, where appropriate, refer to RailCorp's existing standard "Service Schedules". The Contractor must develop Service Schedules for assets provided as part of the Works where RailCorp standard Service Schedules either do not exist or are not appropriate for the use to which the asset is to be put.

The Contractor must provide details and the respective forms (where required) of all records that are required for maintenance and breakdown actions. These must be presented in tabular form in the O&M Manual. Sample forms are to be delivered as separate documents in native format (e.g. Microsoft Word or Microsoft Excel).
5.11 Work-As-Executed drawings

The Contractor must:

(a) submit sample "Work-As-Executed" drawings for different systems and types for review by Principal's Representative in accordance with the requirements set out in the Contract, prior to production of actual drawings;

(b) show on Work-As-Executed drawings the Works as completed;

(c) update the AFC drawings to produce the Work-As-Executed drawings and other drawings as necessary to fully describe the Works. Work-As-Executed drawings for the building component of the Works must include all drawings produced for the building component of the Works, including but not limited to design drawings, shop drawings and drawings produced by specialist trades (for example, combined services layouts, structural electrical and mechanical drawings, and equipment installation drawings);

(d) ensure that the Work-As-Executed drawings are produced in accordance with the requirements of TfNSW CAD Protocols (4TP-ST-084);

(e) ensure the content, accuracy and level of detail of Work-As-Executed drawings are equivalent to those in the detail design drawings used for construction, and are sufficient to describe, to enable and to ensure the efficient operation of the assets created under the Contract;

(f) include in Work-As-Executed drawings, the final survey drawings undertaken and signed by a licensed surveyor, in accordance with the Surveying and Spatial Information Regulation 2006 (NSW), indicating the positioning of the Works relative to the primary survey grid and the cadastral boundaries;

(g) include new and updated RailCorp detailed site survey drawings prepared in accordance with RailCorp's requirements (refer TSR A1 Annexure B) as part of the Work-As-Executed drawings;

(h) certify, via a statutory declaration that each Work-As-Executed drawing is accurate, complete and correct, and that the Works as completed are wholly contained within the Site as constrained by the area nominated in the Contract;

(i) comply with the AS1100 series of standards unless otherwise instructed by the Principal's Representative;

(j) comply with relevant RailCorp standards and normal practice for drawing formats. This includes incorporation of a unique "EDMS Number" on every Work-As-Executed drawing. A batch of EDMS numbers for use on the Works will be provided by the Principal's Representative on request from the Contractor;

(k) where necessary to describe the Works, or where directed by the Principal's Representative, include digital photographs of specific aspects of the Works in Work-As-Executed drawings; and

(l) identify and cross reference assets on Work-As-Executed drawings with the information in the Asset Register database prepared in accordance with TSR A1 Clause 5.4.1.
5.12 Schedule of Spare Parts

5.12.1 General

The Contractor must develop a schedule of spare parts for the assets generated by the Works (Spares Schedule). The Spares Schedule must be submitted to the Principal's Representative in accordance with TSR A1 Clause 4.1.

The Spares Schedule must detail the recommended range and quantity of consumables and the spares required to support the planned operational and maintenance requirements of the assets created by the Works.

5.12.2 Spares Assessment Methodology

The Contractor must develop the Spares Schedule using a clearly defined methodology that is acceptable to the Principal's Representative and consistent with RailCorp's Engineering Design Procedures ED 0018P "Integrated Support Requirements" and ED 0019P "Maintenance Requirements Analysis".

Long lead time spares (those with a one month or greater supply time), high-value spares, spares for equipment commonly held by RailCorp and spares for equipment not commonly held by RailCorp must be identified and listed.

Spares must be considered at the equipment level and not at the part level (e.g. a full pump or motor is a spare, not an impellor or bearing).

The spares assessment methodology must use established in-service failure rates and the related maintenance policies. It must also identify the range and quantity of spares required to be made available at any time to maintain the systems and ensure they meet the availability requirements. Upon request by the Contractor, the Principal's Representative may at its discretion make RailCorp's historical failure rate data available for assets that are currently in use in RailCorp's existing network.

The need for insurance spares to meet unplanned needs must be addressed, and a separate assessment process must be used to identify, quantify and list these insurance spares.

The methodology to be used for the assessment of spares requirements must be included in the TMP.

5.12.3 Spares Schedule

The Contractor must progressively develop and refine the Spares Schedule while undertaking the Works to ensure that it fully covers the Works.

The Spares Schedule must include the following information:

(a) item identification (name, manufacturer's part or reference number and specification, as appropriate);

(b) recommended spares quantities;

(c) price expected;

(d) source;

(e) procurement lead time;

(f) failure rate;

(g) number of items installed in the Works;
(h) predicted usage rate and whether the item is consumable or is used in support of scheduled preventative maintenance;
(i) proposed location of spares; and
(j) the probability of the required item being available to suit the recommended spares quantity.

Data on spare parts is to be supplied under the following headings:

(k) “List of Suppliers”, stating:
   (i) manufacturer, including ABN number;
   (ii) manufacturer’s nearest representative;
   (iii) company address;
   (iv) telephone & fax numbers; and
   (v) website;

(l) “Illustrated Parts List”, including a list (or lists) of parts with part numbers referenced to an illustration, preferably an exploded view of a sectional drawing and a specification;

(m) “Recommended Spare Parts”, including a list of recommended spare parts with part numbers and quantities, and highlighting critical spares (to be held at all times);

(n) “Availability of Spare Parts”, including a short statement quoting the worst case procurement lead time/availability to suit the quantities of parts from suppliers; and

(o) “Ordering Information”, including specific details that would be required when ordering replacement parts, such as serial number, model number, name, reference number and the like.

5.13 Test certificates

This document must contain all testing and commissioning certificates and all associated commissioning and test results issued in respect of the Works for the system/sub-system and equipment.

5.14 Special Tools, Facilities and Equipment

As part of the AMI documentation, the Contractor must develop a “Schedule of Special Tools, Facilities and Equipment” necessary for the operation and maintenance of the systems included in the Works. The Schedule of Special Tools, Facilities and Equipment must be submitted to the Principal’s Representative in accordance with TSR A1 Clause 4.1.

The Schedule of Special Tools, Facilities and Equipment must:

(a) include the recommended number of special tools, facilities and equipment required for the operation and maintenance of the Works;

(b) identify the items required to perform specific maintenance, repair and recovery tasks on the systems, including scheduled preventative maintenance of the systems, the removal, installation and testing of rotatable and repairable items, and other procedures, such as temporary repairs during normal operating periods for unscheduled failures with follow-up maintenance and emergency recovery; and

(c) include any special purpose test equipment and facilities needed in support of the maintenance tasks, including specialist hand-tools.
The Schedule of Special Tools, Facilities and Equipment must include:

(d) details of, and a specification for, each item;
(e) purpose of the item;
(f) maintenance requirements for each item;
(g) supplier;
(h) the quantity required;
(i) price and validity period expected; and
(j) delivery times.

5.15 Training Materials

The Contractor must develop training aids and materials required to fulfil the training requirements set out in TSR 01.

6 AMI REQUIREMENTS FOR NON-RAILCORP RELATED ASSETS

6.1 General

This TSR A1 Clause 6 describes the AMI requirements for non-RailCorp related assets. The Contractor must determine and comply with the AMI content requirements for asset owners other than RailCorp (such as Telstra, RMS, Sydney Water, Integral Energy and local councils).

As a minimum, the AMI content provided for each asset owner must include:

(a) Project Description;
(b) Schedule of Contact Details;
(c) manufacturer’s manuals/brochures and spares parts list;
(d) Schedule of Finishes;
(e) warranties and guarantees;
(f) compliance certificates and records, including a register of the same; and
(g) Work-As-Executed drawings including design drawings, shop drawings, survey drawings, photographic records and technical reports, specifications, plans and schedules;

The Contractor must also update any existing equipment register or asset registers in use by the asset owners.

6.2 Project Description and Scope of the Works

The Project Description must contain:

(a) an outline of the scope of the Works;
(b) the major stakeholders;
(c) datelines;
(d) any new or altered services or systems included; and
(e) any other relevant information.
If the Works abut any existing assets, it must be made clear that these assets are not included in the scope of the Works.

6.3 **Schedule of Contact Details**

The Schedule of Contract Details must provide contact details for all Subcontractors, including the Contractor's designers. Details must include:

(a) the names of all designers and the corresponding initials utilised on drawings;
(b) the correct name of the organisation, including the ABN number;
(c) the role of the organisation under the Contract;
(d) address, telephone and fax numbers for the organisation;
(e) primary contact name within the organisation for enquiries relating to the Works; and
(f) website address of the organisation (if any).

Where the size of the Works only warrants the Contractor preparing one O&M Manual, this information can be included in Section 1 of that manual.

6.4 **Manufacturer's Manuals, Brochures and Spare Parts Lists**

The Contractor must provide copies of manufacturer's operating and maintenance manuals, brochures and spare parts lists for all operable equipment. Where not already included in the manufacturer's operating and maintenance manuals, the Contractor must also provide a schedule of the manufacturer's recommended maintenance activities and maintenance intervals.

6.5 **Schedule of Finishes**

The Schedule of Finishes must include the following data for all internal and external architectural materials and finishes on the Works:

(a) description or name of material or finish;
(b) thickness/weight/gauge;
(c) profile or size;
(d) colour/finish details;
(e) manufacturer or supplier;
(f) cleaning and maintenance recommendations; and
(g) locations used.

Colours may be scheduled in a separate colour schedule.

A location schedule must be included so that the details of materials and finishes in each room or space or building component can be located.

6.6 **Warranties and Guarantees**

This document must include all warranties and guarantees required by the Contract.

The warranties and guarantees must be arranged in a logical sequence and include an index.
6.7 Compliance Certificates and Records

Major compliance and certification documents must be provided, including but not limited to the following where applicable:

(a) Building Code of Australia (BCA) Compliance Assessment Report, BCA Design Certificate and BCA Compliance Certificate as defined in TfNSW Building Certification Procedure (4TP-PR-184);

(b) Disability Discrimination Act (DDA) Compliance Certificate as defined in TfNSW Building Certification Procedure (4TP-PR-184);

(c) Fire and Life Safety Brief;

(d) Fire and Life Safety Report which justifies any “Alternative Solutions” to BCA Performance Requirements;

(e) Fire Safety Certificate and all supporting assessments of Essential Fire Safety Measures;

(f) maintenance schedule for Essential Fire Safety Measures;

(g) a description of the quality assurance systems utilised by the Contractor and the location of all detailed test results, inspection and test plans and other quality assurance data; and

(h) the first registration certificate for every asset that requires annual or periodic registration (e.g. lifts). Registration certificates must be made out to the end asset owner.

6.8 Work-As-Executed drawings

The Contractor must:

(a) submit sample Work-As-Executed drawings for different systems and types for review by Principal's Representative in accordance with the requirements set out in the Contract, prior to production of actual drawings;

(b) show on Work-As-Executed drawings the Works as completed;

(c) update the AFC drawings to produce the Work-As-Executed drawings and other drawings as necessary to fully describe the Works. Work-As-Executed drawings for the building component of the Works must include all drawings produced for the building component of the Works, including but not limited to design drawings, shop drawings and drawings produced by specialist trades (for example, combined services layouts, structural electrical and mechanical drawings, and equipment installation drawings);

(d) ensure that the Work-As-Executed drawings are produced in accordance with the requirements of TfNSW CAD Protocols (4TP-ST-084);

(e) ensure the content, accuracy and level of detail of Work-As-Executed drawings are equivalent to those in the detail design drawings used for construction, and are sufficient to describe, to enable and to ensure the efficient operation of the assets created under the Contract;

(f) include in Work-As-Executed drawings, the final survey drawings undertaken and signed by a licensed surveyor, in accordance with the Surveying and Spatial Information Regulation 2006 (NSW), indicating the positioning of the Works relative to the primary survey grid and the cadastral boundaries;

(g) certify, via a statutory declaration completed by a Competent Person, that each Work-As-Executed drawing is accurate, complete and correct, and that the Works as completed.
are wholly contained within those parts of the Site as described in the General Conditions;

(h) comply with the AS1100 series of standards unless otherwise instructed by the Principal's Representative; and

(i) where necessary to describe the Works, or where directed by the Principal's Representative, include digital photographs of specific aspects of the Works in Work-As-Executed drawings.
ANNEXURE A – Additional Project Requirements
Additional Project Requirements

A1 Time frame for submission (Clause 4.1)
The Contractor must submit the AMI in accordance with the AMI Delivery Plan for review by the Principal's Representative in accordance with the requirements set out in the Contract at least at the following stages during the execution of the Contractor's Activities:
(a) the complete final draft of the AMI at least one month prior to the staged handover or Completion of any Portion or Completion of the Works; and
(b) the final AMI with all Work-as-Executed drawings as a condition precedent to Completion.

A2 Documents to be provided in Hard Copy (Clause 4.2.1)
Nil.

A3 O&M Manuals (Clause 5.5.1)
The Contractor must provide O&M Manuals for the following assets:
(a) building works;
(b) fire detection and protection systems;
(c) cold water supply, reticulation and fittings;
(d) hot water supply, reticulation and fittings;
(e) sanitary drainage, fittings, fixtures, reticulation and pumps;
(f) stormwater drainage, reticulation and pumps; and
(g) ventilation, fans and air conditioning systems.

A4 Operating Guides (Clause 5.8.2)
The Contractor must provide Operating Guides for the following assets:
(a) fire detection and protection systems;
(b) cold water supply, reticulation and fittings;
(c) hot water supply, reticulation and fittings;
(d) sanitary drainage, fittings, fixtures, reticulation and pumps;
(e) stormwater drainage, reticulation and pumps; and
(a) ventilation, fans and air conditioning systems.
List of Reference Documents

RailCorp Asset Management Information Requirements
RailCorp Provision of Technical Maintenance Plans by External Organisations (ED-ISG-21)
RailCorp Signalling Technical Maintenance Plan (SC 00 51 00 00 MP)
RailCorp Electrical Backbone Technical Maintenance Plan (EP 00 0 00 00 MP)
RailCorp Civil Technical Maintenance Plan (ESC 100)
RailCorp B1 B2 B3- TMP Templates (Microsoft Excel Spreadsheet)
RailCorp Ellipse Equipment Register Overview (SAM-AI-UG-028-2.1)
RailCorp Ellipse Equipment Naming Conventions Guidelines – Track & Structures (SAM-AI-UG-018-1.4)
RailCorp Ellipse Equipment Naming Conventions Guidelines - Bridges & Culverts (SAM-AI-UG-019-3.3)
RailCorp Ellipse Equipment Naming Conventions Guidelines – Electrical (SAM-AI-UG-020-1.4)
RailCorp Ellipse Equipment Naming Conventions Guidelines – Signals (SAM-AI-UG-021-1.4)
RailCorp Ellipse Equipment Naming Conventions Guidelines – Facilities, Buildings & Services (SAM-AI-UG-022-1.8)
RailCorp Ellipse Equipment Naming Conventions Guidelines – Control Systems (SAM-AI-UG-023-1.3)
RailCorp Ellipse Equipment Naming Conventions Guidelines – Communications Systems (SAM-AI-UG-024-1.4)
RailCorp Ellipse Equipment Naming Conventions Guidelines – Plant & Equipment (SAM-AI-UG-025-1.4)
Rail Infrastructure Corporation Maintenance Requirements Analysis Manual (AM 9995 PM)
RailCorp Spares Requirements Analysis Process (ED-ISG-13)
RailCorp C1 - Building&Services_Equipment Script Template ECRL V1.0 (Microsoft Excel Spreadsheet)
RailCorp C1 - Equipment Script Template V1.1 (Microsoft Excel Spreadsheet)
RailCorp TrackData User Guide for Release 1.4 (SAM-AI-UG-006-1.4)
RailCorp E1- TrackData Data Templates (Microsoft Excel Spreadsheet)
RailCorp SmartWeld User Guide for Release 2.0 (SAM-AI-UG-04B-1.1)
RailCorp SmartWire User Guide for Release 2.0 (SAM-AI-UG-009-1.3)
RailCorp G1- Smart Weld Templates (Microsoft Excel Spreadsheet)
RailCorp G2-OHW Data Templates (Microsoft Excel Spreadsheet)
RailCorp Asset Information - Requirements for Capitalisation of Costs as Part of a New Project (ABC123)
RailCorp H1-Asset Acquisition Template (Microsoft Word Document)
RailCorp GIS Data Requirements for Electrical Operating Diagrams
RailCorp GIS Data Source and Attributes (*Microsoft Excel Spreadsheet*)
RailCorp Detailed Site Survey Accurate Field Drawing (TMA 0491)
RailCorp Detailed Site Survey Data Capture Procedure (EP0492)
RailCorp Detailed Site Survey Scope Procedure (TMA 0493)
RailCorp Detailed Site Survey Work as Executed Procedure (EP0494)
RailCorp Detailed Site Survey Infrastructure Services Data Policy (EP0495)
RailCorp Detailed Site Survey Specification for Collection of Services Data (EP0496)
RailCorp Detailed Site Survey Plan Symbols and Interpretation Guidelines (TMA 0511)
RailCorp Code and Layer Definitions for Services Identification (TMA 0497)

**Other Documents**

Building Code of Australia
Disability Discrimination Act 1992
Environmental Planning and Assessment Act 1979
TfNSW Building Certification Procedure (4TP-PR-184)
TfNSW CAD Protocols (4TP-ST-084)
ANNEXURE C – RailCorp Equipment Registers
RailCorp Equipment Registers

C1 Existing Equipment Registers to be updated

The Contractor must provide information relating to assets provided as part of the Works utilising an appropriate hierarchical numbering system which will enable RailCorp to update the following Equipment Registers:

(a) the equipment register held within RailCorp’s “Ellipse” Enterprise Asset Management application. The “Ellipse” asset register must be prepared in accordance with the RailCorp Ellipse Naming Conventions in an electronic format that is acceptable to the Principal’s Representative. The “Ellipse” application is provided by Mincom Limited and has been configured and customised to suit RailCorp’s business. The “Ellipse” application was formerly known as “MIMS”;

(b) the equipment registers held within RailCorp’s “SmartData” database which describe the location and characteristics of:

(i) in-situ rail welds - SmartWeld; and

(ii) overhead wiring - SmartWire;

(c) the equipment register contained within RailCorp’s “TrackData” software; and

(d) the equipment registers held within RailCorp’s Geographical Information System (GIS), which describe the location and characteristics of all of RailCorp’s infrastructure assets.

C2 Extent of Detail Required

The Contractor must:

(a) progressively define the list of assets in consultation with the Principal’s Representative during the performance of the Contractor’s Activities;

(b) progressively submit to the Principal’s Representative the agreed list of assets with the drawings to be used for the construction of the Works;

(c) manage the provision of AMI so that the “Identification” fields associated with a particular asset/system/component are consistent and readily available from the drawings and schedules and match the location, naming and numbering conventions agreed with the Principal’s Representative;

(d) collect and provide data on the “attributes” of the assets created under the Contract in consultation with Other Contractors; and

(e) include this data on the “attributes” of the assets in the O&M Manuals for each asset.

RailCorp has developed templates for uploading data into the asset registers described above. These documents are listed in TSR A1 Annexure B.

Data relating to assets and their component parts is to be uploaded into the asset registers described in TSR A1 at the level at which RailCorp normally recognises the asset. For example:

(f) it is not necessary to register the component parts of a transformer as separate individual assets: RailCorp identifies the asset as a transformer;

(g) it is not necessary to identify the switches, busbars, cabinets, cables and other components of an electrical switchboard: RailCorp identifies the asset as a switchboard;
(h) it is necessary to register each type of light fitting (and the total number of fittings) installed as a separate asset but it is not necessary to list the number of fittings in each room. If light fittings are used in many locations it is adequate to describe the location in broader terms such as “Western Concourse and Platform Buildings” or “Platform Canopies”;

(i) it is necessary to register each type of loudspeaker (and the total number of loudspeakers) installed as a separate asset but it is not necessary to list the number of loudspeakers in each room. If loudspeakers are used in many locations it is adequate to describe the location in broader terms such as “Western Concourse” or “Platform Canopies”; and

(j) it is not necessary to separately register the component parts of assets such as the fire indicator panel, EWIS master control panel, lifts, escalators, pumps and valves.

The Principal’s Representative will arrange for RailCorp’s subject matter experts to provide advice to the Contractor on this topic, upon request by the Contractor.
TfNSW Standard Requirements
TSR – T1 Technical Management

50-FT-181/1.0

Standard Applicable to: Transport Projects Division

TPD Quality Management System

Status: Draft
Division: Transport Projects
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1. Introduction

1.1. General

The purpose of this TSR T1 is to describe the requirements for the management and production of the design of the Works and the Temporary Works and the monitoring of delivery of the Works to enable the effective construction and transfer of the Works to the final asset owner on Completion.

1.2. User Instructions

For a contract other than an Alliance contract, the definitions used in this TSR T1 have the meanings as set out in the Contract and in TSR Prelude.

For an Alliance contract, the definitions used in this TSR T1 have the meanings as set out in the Project Alliance Agreement and in TSR Prelude as well as below. Where a defined term below conflicts with a defined term in TSR Prelude the defined term below will apply:

“AFC Design Documentation” means the Design Documentation which:

(a) in the Alliance’s opinion, is sufficiently developed and complete that it can be used for the purpose of constructing that part of the Works and may be submitted to the TfNSW Representative for review in accordance with the requirements set out in this TSR T1 and in the Project Alliance Agreement;

(b) has received a Configuration Change Notice;

(c) is marked by the Alliance as “AFC” or “Approved for Construction”; and

(d) is issued by the Alliance to TfNSW for its records.

“Contract” means “Agreement”.

“Contractor” means “Alliance”.

“Contractor’s Activities” means “Alliance Activities”.

“Contractor’s design Subcontractor” means either the “Alliance’s design NOP(s)” or the “Alliance’s design Subcontractor(s)” as the case may be.

“Design Documentation” means all design documentation (including design standards, design reports, durability reports, construction descriptions, specifications, models, samples, calculations, drawings, digital records, computer software and all other relevant data) in computer readable and written forms, or stored by any other means, required to be produced by the Alliance to design and construct the Alliance Works.

“Other Contractor” means RailCorp or any contractor, consultant, artist, tradesperson or other person engaged by TfNSW or others to do work, other than the Alliance or Subcontractors. The definition of Other Contractor includes the Independent Estimator and Financial Auditor positions.

“Principal” means “TfNSW”.

“Principal’s Representative” means “TfNSW Representative”.

“Project Definition Documents” means any or all of the following:
2. Design Management and Administration

2.1. General Design Obligations

The Contractor's general design obligations are to:

(a) provide a high performance and highly skilled design team, which will work collaboratively with the Principal, the Principal's advisors, Other Contractors and key stakeholders to design and monitor the delivery of the Works;

(b) ensure nominated designers have and maintain all required competencies and approved Engineering Authority;

(c) undertake all studies, investigations, design, documentation and reporting required to design the Works and the Temporary Works in compliance with the conditions of the Planning Approval;

(d) produce fully integrated designs, with all interfaces managed and co-ordinated with all relevant parties including the different disciplines, other Principal's advisors, Subcontractors, Other Contractors and key stakeholders;

(e) produce designs that incorporate and comply with all necessary functional, environmental, economic, whole of life, social, aesthetic and sustainability requirements;

(f) provide high quality design services and Design Documentation;

(g) ensure the design of the Works is compatible with and aligns with similar works throughout the project;

(h) ensure during the design process that Design Documentation complies with all relevant standards and is continually updated to include requirements of revised standards;

(i) verify and validate the design to ensure it meets the requirements of the Contract; and

(j) produce as constructed and system and safety assurance records so as to enable the effective transfer of the Works to the final asset owner.

2.2. Management of the Design Process

The Contractor must manage the design development and review process such that:

(a) a request for information procedure to address all design matters is developed in consultation with the Principal's Representative;
(b) a design change process to control design changes to the Works is developed in consultation with the Principal's Representative;

(c) the Works are identified as a set of integrated systems (for example, in a railway these are track, signalling, electrical, communications, bridges and structures, stations and car parks, common infrastructure, train control);

(d) each system is fully developed and documented including the sub-systems and components that make up each system;

(e) interfaces between systems are identified, developed and documented fully in accordance with the Design Management Plan;

(f) each system is designed and checked by Competent Persons;

(g) each system is designed in accordance with the following standards and procedures:
   (i) ISO 9001:2000 Quality Management System – requirement;
   (ii) AS4292 "Railway Safety Management"; and
   (iii) TfNSW's Safety Management System;

(h) each system is designed in accordance with all current technical standards, specifications and guides;

(i) each system design is verified against the Project Definition Documents, via a requirements analysis and traceability process to be agreed with the Principal's Representative;

(j) all Design Documentation is approved by the Contractor prior to its final release;

(k) all system designs and interfaces between systems are supported by a Safety Assurance Report, in accordance with the Safety Assurance Plan;

(l) all system designs and interfaces between systems are supported by a "Reliability, Availability, Maintainability and Safety" or "RAMS" report in accordance with EN50126;

(m) all Design Documentation is reviewed by the Principal's Representative prior to commencement of construction; and

(n) all Design Documentation is approved by the relevant Authority prior to the commencement of construction.

The Contractor must not alter the design package list included with the Contractor's Design Management Plan without written approval by the Principal's Representative.

The Contractor verifies and certifies that:

(o) the designs and the Design Documentation are in accordance with the Project Definition Documents and the Contract. Where the design and/or Design Documentation is not compliant, these non-compliances must be identified;

(p) the design packages and documents are complete, checked and verified (as required) prior to submission to the Principal's Representative;

(q) the design packages and disciplines/systems are fully coordinated with each other and with adjoining/interfaces activities and designs;
the Works can be safely constructed, commissioned, operated, maintained and decommissioned; and

designs comply with all Laws and all relevant standards, guidelines, codes of practice and sustainability objectives, including with respect to:

(i) safety in design, construction, operation and maintenance, including satisfying the work health and safety duties upon designers contained in s22 of the Work Health and Safety Act 2011;

(ii) equitable access;

(iii) fire and life safety requirements; and

(iv) environmental management requirements.

2.3. Verification, Validation and Proof-Checking of Design

2.3.1. General

During the detailed design stage, (from SDR onwards) the Contractor must verify and validate the design of the Works using recognised systems engineering principles, where:

(a) verification means the process to ensure that the outputs of any stage (or stages) in the design cycle meets the intent of the preceding stage;

(b) validation means the process to confirm that the final product delivers defined operations and performance requirements for its intended use.

The Contractor must engage one or more Verifier(s) for the design of the Works. A Verifier must not be associated with the Contractor (for example, a Verifier must not be related companies or companies in which the Contractor has a financial interest). The Contractor’s design Subcontractor may be engaged as a Verifier.

All design packages submitted to the Principal’s Representative for review in accordance with the requirements set out in the Contract must be accompanied by a certificate from the Verifier(s) certifying that the relevant design is in accordance with the Contract.

The Contractor must develop design validation procedures which must, as a minimum, cover the following for each construction package and for the completed Works:

(c) items to be validated;

(d) the proposed validation tests, performance evaluation and other means of assessment;

(e) commissioning and hand-over activities; and

(f) the people responsible for undertaking validation activities and their responsibilities and authorities.

The design validation procedures must be included in the Design Management Plan.

The validation must include technical support from the Contractor’s designers during construction, including their involvement in:

(g) testing, commissioning and certification of work;
(h) validation of the integration of work with the existing railway system; and
(i) witnessing acceptance tests.

2.3.2. RailCorp Design Packages

The design packages which require Class 1 Verification, Class 2 Verification and Independent Proof Checking are listed in TSR T1 Annexure A.

In this clause, the following definitions apply:

(a) "Class 1 Verification" means verification which is performed by a third party Verifier who is not associated in any way with the Contractor's design Subcontractor (but may be associated with the organisation undertaking Independent Proof Checking); and

(b) "Class 2 Verification" means verification which is performed by a Verifier who may be associated with the Contractor's design Subcontractor.

If the Contractor's design Subcontractor is engaged as a Verifier to perform Class 2 Verification, the person so verifying the design must not be a member of the original team of persons engaged in the design of any part of the Works.

In this clause, "Independent Proof Checking" means undertaking a full and independent assessment, without exchange of calculations or similar information, of all factors influencing the final integrity of the design of any part of the Works and associated Temporary Works, including:

(c) undertaking design calculations and modelling;
(d) reviewing the safety, durability and functional requirements of the identified elements, the Design Documentation and construction methodology;
(e) performing an independent dimensional check of the design; and
(f) providing the Principal's Representative with a comprehensive report on the independent assessment.

2.3.3. RMS Design Packages

For verification and proof engineering requirements of RMS design packages, refer to the requirements within the RMS "Works Authorisation Deed" or "WAD" and associated WAD attachments and appendices. For third parties undertaking the duties of verification and proof engineering of RMS design packages, the third parties must not be associated in any way with the Contractor's design Subcontractor.

2.4. Competence for Design

The Contractor will be required to obtain an Engineering Authority via the Principal's Representative to undertake the design of the Works and the Temporary Works.

All design activities performed by the Contractor must be carried out by Competent Persons. Each Competent Person may be different to the person in an organisation who holds the authority to release the design to the Principal.
The Contractor must have a competency assessment and certification process by which it identifies persons as having sufficient skills and knowledge to undertake design tasks. The Contractor’s competency assessment and certification process must have the following characteristics:

(a) a detailed log of a person’s relevant qualifications and past experience. This must be in sufficient detail to enable an assessment of whether the individual could have gained the skills and knowledge required to perform the identified tasks;

(b) identification of the minimum qualifications and experience required for each task;

(c) a defined assessment methodology; and

(d) a method or process which identifies accepted competence levels to perform specific tasks by individuals at a specific time. For example, this method must be capable of confirming that person A was certified as competent to deliver a structural design solution between July 04 – June 06.

Within 10 Business Days of the date of the Contract, the Contractor must submit to the Principal’s Representative for review and record:

(e) evidence of its competency certification process; and

(f) a schedule which details personnel which have been assessed as Competent Persons, the tasks to be performed by each Competent Person (Designer, Design Checker, and Verifier), and evidence that each individual has been assessed as a Competent Person by the competency assessment and certification process. This schedule must be maintained as current until Final Completion.

Documents referred to in paragraphs (e) and (f) above must be submitted to the Principal’s Representative for review in accordance with the requirements set out in the Contract. All submissions must be made on TfNSW Engineering Authority Application (EAA) (4TP-FT-143) and must be accompanied by the following:

(g) RailCorp form EPA 241 FM01 for each nominated design discipline team (Part A) and each nominated individual (Part B); and

(h) All supporting documentation called for in RailCorp form EPA 241 FM01, including curricula vitae, required to demonstrate competence in the nominated roles.

The Principal’s Representative will review the submission within 10 Business Days of receipt for completeness and appropriateness. The submission will be rejected if it is deemed to be incomplete or if insufficient evidence has been provided to demonstrate the competency of the proposed personnel. A revised submission will then need to be made to the Principal’s Representative where an earlier submission has been rejected.

Once a submission is accepted by the Principal, it will either:

(i) forward the submission to RailCorp for its own review and approval, where RailCorp is the asset owner and is required to grant Engineering Authority; or

(j) grant Engineering Authority to the nominated individuals where RailCorp is not the asset owner.
Where RailCorp is not the asset owner, the Principal will review applications for Engineering Authority in accordance with the guidelines set out in RailCorp procedure Engineering Authority for Design (EPA 241).

Where there are changes in personnel, the Contractor must submit evidence of competency for the replacement personnel.

2.5. Sustainability in Design

The Contractor must comply with the TfNSW sustainability requirements set out in TSR E1.

Reference should be made to the Project Definition Documents and the Planning Approval for further details on sustainability requirements.

2.6. Management Plans

2.6.1. Design Management Plan

The Contractor must prepare a "Design Management Plan" to demonstrate how the design of the Works is to be delivered. The Design Management Plan must be submitted to the Principal's Representative for review in accordance with the requirements set out in the Contract including TSR Prelude. The Design Management Plan must as a minimum:

(a) describe the design team and the wider support team with clearly defined roles and responsibilities of team members;

(b) identify communication, reporting and supporting channels within the team;

(c) identify appropriate resources and procedures to effectively manage the design process;

(d) identify appropriate resources and procedures to effectively manage safety in design and safety assurance;

(e) identify appropriate resources and procedures to effectively manage all design interfaces;

(f) include a list of personnel nominated for the design, checking and verification of each design output;

(g) identify the responsibility and authority for each design development activity;

(h) identify all design packages, reports, drawings and all other design outputs;

(i) include a program for all submissions (taking into account the RailCorp Professional Services Division – Time Slots Planner (to be issued each year) included in Annexure D), progress and review meetings;

(j) include, at the detailed design stage, a register of parts of the Works and Temporary Works that require shop drawings to be created; and

(k) undertake safety risk reviews at both the design input and output stage taking into account reliability and maintainability.
2.6.2. Interface Management Plan

The Contractor must prepare an "Interface Management Plan" or "IMP" and submit the IMP to the Principal's Representative for review in accordance with the requirements set out in the Contract, including TSR Prelude. The IMP must ensure that appropriate resources and procedures are in place to effectively manage the interfaces during the design and construction of the Works. The IMP should provide for:

(a) arrangement of interface management meetings and recording of the meeting minutes;
(b) presentations, production of design reports, technical papers and drawings; and
(c) participation in stakeholder design reviews.

The IMP must identify all demarcations, responsibilities and interfaces with other parties, and will also incorporate a schedule of interface meetings.

The Contractor must nominate an interface representative to provide a single point of contact for all interfaces and interface management issues relating to design development.

The Contractor is responsible for undertaking co-ordination with Subcontractors, Other Contractors and all interfacing parties as required to ensure a coherent fully integrated design.

Within the first four (4) weeks of the Contract, the Contractor will populate an "Interface Schedule" stipulating all information required and the date required from interfacing specialist sub-consultants, other Principal advisors, Other Contractors and all other interfacing parties. The Interface Schedule must be updated on a monthly basis as a minimum to record the exchange of interface information.

The Contractor will provide a copy of all information requested by specialist sub-consultants, Other Contractors or any other interfacing parties.

With the exception of Alliance contracts, the following standard requirement also applies

(d) Where an issue or conflict with an external stakeholder arises, the Contractor must provide the support and assistance to the Principal (in managing interfaces with external stakeholders) which is necessary to achieve satisfactory resolutions in a timely manner. Contact with external stakeholders must be through the Principal's Representative unless otherwise directed by the Principal's Representative.

2.6.3. Safety Assurance Plan

The Contractor must either prepare a "Safety Assurance Plan" for the Works or review and update the Safety Assurance Plan for the Works prepared by the Principal and submit this plan to the Principal's Representative for review in accordance with the requirements set out in the Contract, including TSR Prelude. The Safety Assurance Plan prepared or updated (as applicable) by the Contractor must address the design, construction, testing, commissioning, integration, operation, maintenance and decommissioning stages of the Works, and must describe how the Contractor intends to demonstrate that the Works are acceptably safe to form part of the existing network ("Safety Assurance Demonstration").

The Safety Assurance Plan must include the requirement that the Contractor produce one or more Safety Assurance Reports for the Works (see Clause 3.5). These reports must document the Safety Assurance Demonstration.
The Safety Assurance Plan must specify the number of Safety Assurance Reports the Contractor expects to produce for the Works and must describe the general scope of each of the Safety Assurance Reports.

In determining the number and scope of the Safety Assurance Reports to be produced, the Contractor must take into account the way in which elements of the Works will be packaged for design, construction, testing, commissioning, integration, operation, maintenance and decommissioning of the Works. Any unique design element will require the completion of a comprehensive safety case.

The Contractor must regularly review and update the Safety Assurance Plan until Final Completion.

The Contractor's Safety Assurance Plan must contain a goal structuring notation diagram which illustrates the safety argument supporting the Safety Assurance Demonstration and the relationship between the Safety Assurance Demonstration and the supporting evidence.

3. Design Documentation

3.1. Design Reports

The Contractor must prepare a series of design reports to demonstrate that the Design Documentation achieves the objectives as set out in the Project Definition Documents. This must include detail of the design, maintenance requirements, construction method, and asset operation.

These reports may be updated progressively on a package by package basis by the expansion of sections in the report as the design is developed. Each design package must be documented in at least one design report.

Design reports must reflect the stage of the design process at the time of submission.

3.1.1. Concept Design Report and Detailed Design Reports

The "Concept Design Report" and "Detailed Design Reports" must include:

(a) A description of the scope of work covered by the respective Concept Design Report or Detailed Design Report;
(b) the relationship between design packages and external interfaces;
(c) design inputs, including loads, load combinations, factors, safety requirements (during construction, operation and maintenance), environmental considerations and input from others;
(d) design assumptions, constraints and limitations;
(e) design input from others, particularly Other Contractors (see (c) above);
(f) identification of relevant and applicable standards, codes and guidelines (including document versions) and the identification of specific provisions, criteria and classifications within such standards and codes;
(g) evidence of compliance of the design with the standards noted in (f) above;

(h) a schedule of reference information and reports providing input into the design (e.g. geotechnical data, cadastral survey, topographical survey, utilities and services data);

(i) the basis of the design and the specific design methodology adopted;

(j) a full set of drawings including:
   (i) site plans;
   (ii) general arrangements;
   (iii) elevations, plans and sections;
   (iv) drawings for all design/construction packages;
   (v) interface drawings; and
   (vi) staging and sequencing drawings;

(k) a schedule of signatures of Competent Persons;

(l) Verifier review/certification (for detailed design packages);

(m) safety in design demonstration (including compliance with the Safety Assurance Plan, identification of the hazards addressed by the design and identification of hazards that will be transferred to the eventual asset owner);

(n) RAMS report and how the design addresses RAMS, including identification of required spares, operating and maintenance manuals and any special equipment or skills required for maintenance or operation;

(o) sustainability in design demonstration, including how the sustainability initiatives as identified in the Contract have been addressed (refer TSR T1 Clause 2.5);

(p) documentation showing coordination with interfacing work packages and projects;

(q) comments register, including all comments from previous submissions and how each has been closed out;

(r) where applicable to the design package, room data sheets, room schedule and design requirements including sizing and specific weight requirements for equipment rooms. The room data sheets must specify detailed requirements for all new buildings including room sizes, services, furniture and equipment, provisions for equipment and finishes etc;

(s) construction review, including construction methodology and operations staging report (including identification of works requiring track possessions);

(t) a schedule of approved asset owner waivers to published standards;

(u) demonstration of compliance with environmental management requirements and the Planning Approval;

(v) demonstration of compliance with the requirements of the Project Definition Documents. Any non-compliances must be identified;
(w) demonstration of workmanship, material, product and equipment specifications (including certification of type approval for new materials, products or equipment);
(x) calculations (if requested);
(y) evidence of design verification and validation (refer TSR T1 Clause 2.3.1) including the methodology adopted;
(z) documentation of outstanding issues that may affect the design;
(aa) Building Code of Australia design certificate obtained by the Contractor in accordance with TSR 01;
(bb) certification obtained by the Contractor from the BCA consultant that the design is in accordance with the fire and life safety requirements of the Building Code of Australia, the Environmental Planning and Assessment Act 1979 NSW, and the Environmental Planning and Assessment Regulation 2000 NSW;
(cc) certification obtained by the Contractor from the Disability Discrimination Act 1992 (Cth) consultant that the design is in accordance with the requirements of Disability Discrimination Act 1992 (Cth) and Disability Standards for Accessible Public Transport;
(dd) demonstration of compliance with any conditions of approval from OEH;
(ee) an Asset Maintenance Strategy;
(ff) Asset Operations Strategy;
(gg) the Final Detailed Design Report will include requirements for ITPs, Hold Points and Witness Points, together with the criteria for acceptance/release in accordance with TSR Q1 and Inspection and Test Plans – Minimum Requirements (4TP-ST-068); and
(hh) any additional information listed in TSR T1 Annexure A.

3.2. Asset Maintenance Strategy

The asset owner's eventual asset maintenance plan shall provide a list of all assets together with a description of an appropriate inspection and testing regime, to ensure the lifecycle of the defined assets is proactively managed to identify and mitigate operational and safety risks posed by the operation of those assets to customers, general public and personnel.

At System Definition Review stage an "Asset Maintenance Strategy" must be formulated to ensure that the Works continue to function in a safe and efficient manner throughout its design life thus safeguarding the reliability, value and use of the asset.

The Contractor shall include, as a minimum, the following information in the Asset Maintenance Strategy (where applicable):

(a) overall philosophy;
(b) inspection and test plan regime;
(c) fault and defect inspection;
(d) fault and defect reporting;
(e) access requirements for routine maintenance and replacement;
maintenance planning and scheduling;
major maintenance works;
spares requirements;
staffing (numbers and competencies);
emergency repairs;
handover and hand-back strategy;
training;
safety management;
activity guidelines that describe each maintenance activity:
the steps required by the activity;
quality checks on the work;
resources needed (personnel, plant and material);
traffic control plan (if applicable); and
any special precautions with the activity itself or the materials used, including use of personal protective equipment; and
notation of any issues regarding decommissioning of the asset.

3.3. Asset Operations Strategy

At SDR stage, the Contractor shall produce an "Asset Operations Strategy", which must provide a description of the operation of all elements in normal operating circumstances and in degraded/emergency circumstances.

3.4. Road Safety Audit

Where the Works or the Temporary Works require a change to existing boundaries and/or changed interface between the existing rail and road networks (such as through physical alteration, change of use and/or introduction of new hazards) then the Contractor must arrange for a "Road Safety Audit" to be carried out as per RTA Technical Direction for Road Safety Practitioners (TD 2003/RS03) and RTA Guidelines for Road Safety Audit Practices.

Road safety audits must be carried out at least at the following stages:
on completion of the detailed design for the proposed changes to existing road networks; and
on completion of construction of the changes to existing road networks but prior to operation.

The road safety audits must be carried out by a team consisting of a lead auditor and a least one other member who is experienced in traffic management. The lead auditor must be considered by the Institute of Public Works Engineering Australia Ltd (NSW Division) to be a level 3 auditor.
3.5. Safety Assurance Reports

As outlined in TSR T1 Clause 2.6.3, the Contractor must produce one or more "Safety Assurance Reports" to demonstrate that the Works are acceptably safe to be constructed, tested, commissioned, integrated into the existing network, operated, maintained and decommissioned as part of the existing network.

Safety Assurance Reports must be submitted to the Principal’s Representative for review in accordance with the requirements set out in the Contract at the following stages:

(a) with the System Concept Review submission (outline only)
(b) with the Preliminary Design Review submission (outline only);
(c) on completion of the design of the Works or the relevant parts of the Works (as the case may be);
(d) on completion of the construction of the Works;
(e) on completion of the commissioning phase; and
(f) on completion of the system integration phase.

Where more than one Safety Assurance Report is to be produced for the Works, the Contractor must ensure that when read together, the Safety Assurance Reports demonstrate the safety of the whole of the Works.

The Safety Assurance Reports must demonstrate and provide evidence that:

(g) the Contractor has a documented safety management system in place and that this system was followed throughout the various stages of the Contractor’s Activities;
(h) the Contractor’s design for any part of the Works or Temporary Works complies with the relevant standards, and includes that:
   (i) standards relevant to material, equipment and configuration were identified by the Contractor;
   (ii) these standards were assessed to be applicable and suitable for the Works by the Contractor;
   (iii) the Contractor used a Competent Person to design, check and verify that the design meets those standards; and
   (iv) the Contractor ensured that the Contractor's design was submitted to the Principal's Representative for review in accordance with the requirements set out in the Contract;
(i) the Contractor has constructed the Works and the Temporary Works in accordance with the design and the Codes and Standards, including that:
   (i) where applicable, the Contractor has used the final asset owner type approved equipment;
   (ii) the manufacturer and/or supplier of material and/or equipment has confirmed that materials and/or equipment complies with all Codes and Standards;
(iii) the Contractor has completed all stages of the commissioning phase of the Works and that the Works are proven to meet acceptance criteria; and

(iv) the Contractor has completed all stages of the system integration phase of the Works and the required overall network performance is proven to be achieved.

(j) the Contractor has identified and effectively managed all project-specific hazards when designing and delivering the Works and the Temporary Works, including that:

(i) the Contractor created a Safety Hazard Log at the commencement of the design for the Works and the Temporary Works;

(ii) the Contractor progressively updated the Safety Hazard Log during the design, construction, commissioning, and system integration phases of the Works;

(iii) the Contractor eliminated project-specific hazards or treated them to reduce the risk associated with those hazards so far as is reasonably practicable;

(iv) the Contractor transferred the responsibility for any project hazards which remain after Completion of the Works to the final asset owner; and

(v) the final asset owner accepts responsibility for the remaining project hazards;

(k) the Contractor has prepared asset management information for the Works and delivered it to the Principal's Representative in accordance with the requirements of TSR A1; and

(l) the Contractor has identified any special tools and training needs in accordance with TSR A1 and, where necessary, trained the asset owner's personnel in accordance with TSR 01.

3.6. Construction Interface Specification

The Contractor will produce a "Construction Interface Specification" for all construction contract interfaces. The Contractor will identify contract boundaries, interfaces and propose the demarcation of the responsibilities between each construction package. The Construction Interface Specification will also include any critical sequencing of the works.

4. Design Documentation Submission Process

4.1. General

The Contractor must submit all Design Documentation and other documents progressively to the Principal's Representative for review in accordance with the requirements set out in the Contract.

All submissions to the Principal's Representative 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.

All written documents must be prepared in A4 format. All drawings and associated documentation, such as schematics or schedules, must be in accordance with TfNSW CAD Protocols (4TP-ST-084).
All documents submitted must be of high quality. The Contractor must ensure all documents are thoroughly checked and proof read before submission.

The Contractor must submit to the Principal's Representative one (1) original and three (3) copies (one (1) of which is unbound) of each deliverable document including reports, specifications, drawings or plans. In addition, the Contractor 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 are to include a title, date, author (individual and company), company contact details, comment sheets, revision number, status, page headers and footers and an executive summary.

4.2. Quality of Submission

For a document set (particularly drawings) to achieve a standard of presentation sufficient to be reviewed, it must meet the following minimum criteria:

(a) 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;

(b) drawings must be completed in sufficient detail such that the reviewer can understand what is being represented on the drawing and how it relates to other elements of the design;

(c) documents containing coloured elements must be easily readable if reproduced in black and white; and

(d) multi-page documents must contain page numbers.

The Principal's Representative will reject an incomplete or non-quality compliant design submission and will not proceed with the review until complete and quality compliant documentation has been resubmitted.

5. Principal's Design Review

5.1. Design and Sustainability Review Panel

The Principal has established an independent "Design and Sustainability Review Panel" or "DSRP". The DSRP is comprised of the Government Architect (who chairs the meeting), two eminent architects, representatives from the Principal, and selected advisors as required for specific meetings with project-specific designs.

The function of the DSRP 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.

In addition to its obligations under TSR T1 Clauses 5.2 and 5.7, the Contractor must, in consultation with the DSRP, do all things reasonably necessary to progress the design. This includes but is not limited to:

(a) present and explain the design to the DSRP, as and when required; and
respond to current and previous design issues as advised by the Principal.

5.2. Review for Completeness

The Principal's Representative will review each design submission to ensure 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 Contractor;

(b) a document transmittal listing all of the documents forwarded for review and their format (e.g., drawing, report, specification, etc);

(c) a CD or DVD containing all of the documents listed in the document transmittal; and

(d) the design package.

5.3. Review for Appropriateness

The Principal may review each design submission to assure itself that the design solution is appropriate for its intended purpose.

Calculations, determinations and the like will be undertaken as required to assure the adequacy of the design. The Principal's Representative will issue a Certificate of No Objection to allow the design to proceed to the next stage of the process and ultimately to construction and commissioning. Rejections may (but are not required to) be accompanied by an explanation of the deficiencies in the design and actions required to achieve acceptance.

This review will not diminish the responsibility of the Contractor, designer, design checker and the Verifier(s) to ensure the design solution is fit for its intended purpose.

5.4. Criteria for design submission

A Design Documentation submission will be deemed not to have been submitted to the Principal's Representative if it exhibits any of the following features:

(a) design packages that do not include the minimum set of deliverable documents at the applicable SDR, PDR or CDR stages, as required by the asset owner or TfNSW standards;

(b) designs which fail to comply with RailCorp standards without an engineering waiver approval being issued by RailCorp;

(c) designs which otherwise fail to comply with Codes and Standards;

(d) for submissions after SDR stage, designs against which formal design comments from TfNSW or the asset owner have not been adequately responded to or closed out;

(e) 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 for which the designers, checkers and/or Verifiers do not have the required competencies or do not hold TfNSW and the asset owner Engineering Authority for the specific design work. It should be noted that the roles of designer and checker are not interchangeable. All documents must be signed by the nominated designer and checker;

Design Documentation that does not demonstrate or provide evidence (in the form of certification) of internal design review, verification, validation or proof checking;

design which depends on unfounded or unreasonable assumptions that are “to be confirmed” at later design stages, e.g. insufficient information on geotechnical, survey or existing services, or a lack of procurement details of major equipment items;

inadequate recognition in the Design Documentation of construction methodology, sequencing and staging for the works, particularly at the CDR stage;

design packages which do not set out the minimum requirements for inspection and test criteria at the CDR stage;

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;

Design Documentation containing information contradictory with an already submitted and approved design; and

drawings that are not in full compliance with TfNSW CAD Protocols.

5.5. Design Review Stages (Non-RailCorp and Non-RMS Design Package)

Designs not related to RailCorp or RMS assets or approval processes must be submitted for review in accordance with the design review stages and submission information requirements of the relevant Authority. The Contractor must submit to the Principal's Representative a copy of each submission on the same day as submitted to the relevant Authority. The Principal's Representative may, but is not obliged to, direct that any document in such submission is a Document that is to be submitted to the Principal's Representative for review in accordance with the requirements set out in the Contract. The Contractor must not commence any construction activity related to these designs until Approved for Construction Design Documentation exists for those designs and the confirmation notice allowing construction to commence from the relevant approval Authority is provided to the Principal's Representative.
5.6. Design Review Stages (RMS)

Designs related to RMS assets or approvals must be submitted to the Principal’s Representative for review in accordance with the requirements set out in the Contract. The design review stages and submission information requirements for RMS approvals are described in the RMS Work Authorisation Deed(s) contained in the Contract.

5.7. Design Review Stages (RailCorp Design Package)

Designs related to RailCorp assets or approvals must be submitted to the Principal’s Representative for review in accordance with the requirements set out in the Contract at the following stages of design development (note: the information required for each stage is further described in RailCorp standard EPD 0013):

(a) “System Concept Review” or “SCR”;
(b) “System Definition Review” or “SDR”;
(c) “Preliminary Design Review” or “PDR”;
(d) “Critical Design Review” or “CDR”; and
(e) “Approved for Construction” or “AFC” Review.

The review process for these design packages is illustrated in the flowchart in Annexure C. The flowchart shows each stage of review required and identifies the responsible party for actioning each stage of review.

Design packages submitted must be received by the Principal’s Representative at least 12 working days prior to a RailCorp design review “time slot” allocated for TfNSW projects (see Annexure D for current RailCorp Professional Services Division – Time Slot Planner). This will allow for TfNSW to conduct its reviews and, if not rejected, provide time for RailCorp to receive the packages before a review period commences.

The letter provided with any package submitted for RailCorp Design Review, must make it clear (list) which disciplines are contained within the package so that it is clear to those disciplines that they will need to review the documentation, e.g. whilst the main subject matter may be Civil & Structural there may be elements of Electrical Design (such as Earthing & Bonding) or Track (alignment and transit space issues).

The design reports covering the package must contain discrete sections for each of the disciplines included in the overall design, e.g. in a Civil & Structural package that has an element of Electrical Design there must be a section in the report that deals with the electrical design.

Where a report or drawing has sections covering secondary disciplines, it must be signed off by the Designers and Design Checkers for all design discipline areas, e.g. in a Civil & Structural report containing an electrical element, the Civil & Structural Designer and Design Checker and the Electrical Designer and Design Checker will need to sign the report.
5.7.1. System Concept Review

The purpose of an SCR is for the Contractor to demonstrate at the conclusion of the concept design development phase of the project that the engineering specification and scope of works are complete and properly represent the Principal’s requirements.

The Principal must be assured that the project specification is complete, accurately represents the BRS, SRS and statutory design requirements.

The SCR will take place once a Concept Design Report has been developed. The Concept Design Report must contain all elements required under TSR T1 Clause 3.1.

5.7.2. System Definition Review

The purpose of an SDR is for the Contractor to demonstrate that the system and interface specifications are complete and unambiguous and consistent with the requirements of the Contract. The Principal must be assured that the requirements for the system or interface are fully defined in the system and interface specification and that any inconsistencies or omissions in relation to contract requirements are identified and resolved.

SDRs will take place once initial requirements analysis and allocation has been undertaken and each System Design Report has been developed. Each "System Design Report" must include, as a minimum:

(a) identification of each system (including where relevant its sub systems) and the relationship between the systems;

(b) an availability allocation for each system to achieve the asset owner’s systems requirements specification;

(c) a requirements analysis and traceability matrix (as described in IEEE Standard 1220, ANSI/EIA 632 or similar standards) which allocates requirements in the Project Definition Documents to the various systems identified under TSR T1 Clause 2.2(c);

(d) a summary of key assumptions made by the designer about each system;

(e) an engineering specification for each system or interface;

(f) the inspection and test plan document management structure required by TfNSW Inspection and Test Plans – Minimum Requirements (4TP-ST-068); and

(g) an initial risk and hazard identification for each system.

5.7.3. Preliminary Design Review

PDRs must be carried out at the completion of the “engineering” in the detailed design development phase for each system and/or interface between systems to ensure that the proposed solution is consistent with the functional and performance requirements of the engineering specification. The Principal must be satisfied that the proposed design solution complies with the intent of the specification and the Contract.

The PDR will take place once the preliminary Detailed Design Report has been developed. The layout of the preliminary Detailed Design Report must address each of the elements of Clause 3.1.1 and as a minimum must include the following content:
The purpose of the documentation shall be to facilitate the construction of the works. The Principal must satisfy the Contractor that the constructed works meet the design intent of the design reports. CDRs shall contain all test and acceptance criteria that the Contractor will need to satisfy to demonstrate that the constructed works meet the design intent of the design reports.

The CDR will take place once a final Detailed Design Report has been developed in accordance with TSR T1 Clause 3.1. The Principal will review and comment on the initial submission of the CDR. Any comments made by the Principal must be closed out by the Contractor to the satisfaction of the Principal at which time a Certificate of No Objection will be issued to evidence acceptance. The submission must then be updated to reflect any agreements prior to being passed on to the Principal’s stakeholders for their review and comment at this stage.

5.7.4. Critical Design Review

CDRs must follow completion of the detailed design for each system and/or interface between systems in the detailed design development phase.

The purpose of the CDRs is for the Contractor to demonstrate that the detailed design is to be suitable in all respects to proceed with construction/fabrication of physical items or coding of software. CDRs should contain all test and acceptance criteria that the Contractor will need to satisfy to demonstrate that the constructed works meet the design intent of the design reports.

The CDR will take place once a final Detailed Design Report has been developed in accordance with TSR T1 Clause 3.1. The Principal will review and comment on the initial submission of the CDR. Any comments made by the Principal must be closed out by the Contractor to the satisfaction of the Principal at which time a Certificate of No Objection will be issued to evidence acceptance. The submission must then be updated to reflect any agreements prior to being passed on to the Principal’s stakeholders for their review and comment at this stage.

5.7.5. Approved for Construction Review

At the conclusion of the CDRs and following close out of any comments received during the CDRs, the documentation is to be signed by the relevant Competent Persons and Verifier(s), and marked as “For AFC Review”. The Contractor must then submit this documentation to the Principal’s Representative for its review in accordance with the requirements set out in the Contract. This review by the Principal’s Representative is the “Approved for Construction Review” or “AFC Review”.

(a) engineering specification for the system or interface;
(b) engineering design and layout drawings, including interface definitions;
(c) a summary of key assumptions made by the designer;
(d) initial selection of major components and materials (including samples where appropriate or as required by the Principal in TSR T1 Annexure A);
(e) a palette of all materials (including colours) to be used for the architectural finishes boards;
(f) functional flow diagrams (or equivalent for software);
(g) preliminary system or interface risk and safety hazard assessment, including safety hazards that have been identified and either eliminated or reduced to treatments proposed through design, manufacture or testing to SFAIRP levels, and any residual safety risks expected at handover to be managed through maintenance or operational procedures;
(h) preliminary reliability models and predictions;
(i) a list of ITPs; and
(j) maintainability features, maintenance access, vandalism resistance features, and self test and built in monitoring systems.
As part of the AFC Review, the Principal will obtain the asset owner's acceptance of the design. The Contractor will mark the documentation as AFC only after the Principal's Representative has provided it with the asset owner's acceptance of the design.

The Principal will issue the asset owner's acceptance of the design to the Contractor within 10 (ten) working days from receiving the correctly signed documentation marked "For AFC Review".

The Contractor may only commence a construction activity once all conditions precedent to the commencement of construction activities have been met and AFC Design Documentation exists for the relevant package or element of work. The Contractor is to mark up the design drawings "AFC" in accordance with Annexure C and issue it to the Principal's Representative for its records.

5.8. Design Briefing Sessions Pre-Submission

Prior to each design submission for each design review stage under TSR T1 Clause 5.7 the Contractor must arrange the following briefing sessions with the Principal's Engineering Assurance Manager:

(a) an inception review, no later than three (3) Business Days after commencing the design; and

(b) a design progress review, between two (2) and three (3) weeks prior to the design being submitted.

The Contractor must give a brief presentation on key points of the design. The Principal's Representative may provide the Contractor with comments on the design two (2) Business Days following the briefing. The Contractor must address and close-out any such comments with responses included as an appendix to the design report provided with the design submission.

5.9. Design Briefing Session Post-Submission

As part of each design submission, and otherwise if specifically requested by the Principal's Representative, the Contractor must arrange a briefing session with the Principal and either RailCorp or the relevant Authority, approximately four (4) Business Days after submission of the relevant Design Documentation. The Contractor must give a comprehensive presentation on key points of the design, discuss queries, and minute any discussion and action points arising. The minutes must be provided to the Principal's Representative within three (3) Business Days of the briefing session. The Contractor must address and close-out any such minutes as part of the review process set out in the Contract. Any minutes and responses are to be included as an appendix to the final Design Report.

5.10. RailCorp External Party Engineering Interface

RailCorp "External Party Engineering Interface" or "EPEI" is a group of operational representatives from RailCorp whose role is to coordinate interface between the Principal and various RailCorp stakeholders.

Through the Principal, EPEI will coordinate reviews and endorsement of submissions for Engineering Authority, Engineering Design, Engineering Waivers and other non-compliances and the CCR process.
All design produced by the Contractor will be submitted by the Principal to EPEI in accordance with the flowchart in Annexure C.

The Contractor must verbally and visually present design packages to RailCorp stakeholders outlining assumptions, design issues, details of waivers, and changes from the previous submission, as well as addressing all queries.

The Contractor is responsible for producing submissions and preparing presentations, generally at concept design and final detailed design, as applicable, and undertakes actions to reconcile and close-out comments for RailCorp's acceptance, in a timely and systematic manner.

The Contractor must document RailCorp's comments in the prescribed format, monitoring responses and updates to close-out. Each submission should also be accompanied by the comments report showing how each relevant comment has been addressed.

5.11. RailCorp Station Working Group

The “Station Working Group” or “SWG” is comprised of representatives of RailCorp and other stakeholders, including those involved in station operations, management, safety and maintenance.

The SWG may provide expert input to the design and construction processes. Such input may include confirmation of the station and building elements of RailCorp’s BRS and SRS and reviews of the design.

The Contractor must do all things reasonably necessary to assist the proper functioning of the SWG including:

(a) provide presentations to the SWG generally at each design stage, as applicable; and
(b) prepare and provide to the Principal’s Representative such material as the Principal’s Representative may reasonably require for any meeting of the SWG.

5.12. Closure of Previous Comments

Comments generated by the Principal’s Representative, RailCorp and other stakeholders from any review of the design at each stage must be addressed and closed out by the Contractor in accordance with the requirements set out in the Contract, and must be reflected in the next stage submission.

The Principal’s Representative is the only person that can close a comment raised following the Principal's design review. A response from the Contractor such as “noted” or “agreed” is not a satisfactory response to a review comment.

6. Construction Compliance with Detailed Design

6.1. General

The Contractor must manage the construction process such that:

(a) the Works comply with the AFC Design Documentation;
(b) each procurement specification is documented and approved by a Competent Person for final release;

(c) each procurement specification is verified against the AFC Design Documentation by a Competent Person;

(d) any proposed change to a design solution during construction phase is reviewed and approved by a Competent Person;

(e) any proposed change to a design solution that affects the safety regime (during construction and/or during long term operations/maintenance), the maintenance plan, the operation of the system, or the long term asset life is referred to the Principal’s Representative for review;

(f) a Competent Person specifies acceptance criteria for each system and sub-system and interfaces between systems;

(g) each system and sub-system, once constructed, is verified against the Competent Person’s acceptance criteria;

(h) each identified interface between systems is verified progressively against the Competent Person’s acceptance criteria; and

(i) an ITP is developed in accordance with TSR Q1 for each system (and sub-system if required) and the interface between systems is approved by a Competent Person before use.

The Contractor must determine appropriate Hold Points and Witness Points as part of the design process and incorporate them into the construction management process including any specified in the Contract.

6.2. System Verification Reviews

“System Verification Reviews” or “SVRs” are to be conducted progressively by the Contractor. SVRs must cover each system and/or interface between systems during the construction and testing phase.

The documentation for each SVR is to be of a consistent format and progressively submitted by the Contractor as works proceed, including closeouts of non-conformances and Principal’s Representative’s queries.

The purpose of the SVRs is for the Contractor to demonstrate that all testing and verification action is complete, that all specification requirements have been achieved, and that the system is ready for integration testing with the existing network, final acceptance testing and handover.

Completed SVR documentation is to be submitted in final form following system integration of the relevant system or subsystem.

6.3. Physical Configuration Audit

A “Physical Configuration Audit” or ”PCA” is to be conducted during the construction/commissioning phase by the Contractor in conjunction with the Principal’s Representative for each system and/or interface between systems. The purpose of the PCA is to ensure that the as-built configuration conforms with the AFC Design Documentation. The PCA
also aims to ensure that the as-built documentation is an accurate and complete record of the as-
built configuration.

The Contractor must issue a formal notification to the Principal’s Representative at least 2 weeks
prior to commencing a PCA. The Principal’s Representative will advise the Contractor if the
Principal’s representative(s) intend to attend. If the Principal confirms its intention to attend, the
PCA must not proceed unless the Principal’s representatives are present.

7. Shop Drawings

The Contractor must produce shop drawings that are consistent with the Contract. The Contractor
must submit shop drawings in accordance with TSR T1 clause 4.1 at least 14 days prior to
commencing fabrication.

The Principal’s Representative may (but is not obliged to) review and provide comment to the
Contractor in relation to shop drawings, however the Contractor is responsible for the accuracy,
correctness and suitability of shop drawings.
ANNEXURE A – Additional Project Requirements
Annexure A - Additional Project Requirements

A1  Class 1 and 2 Verification (TSR T1 Clause 2.3)

Class 1 Verification must be completed for:
(a) Design compliance with the Disability Discrimination Act 1992 and Disability Standards for Accessible Public Transport;
(b) Design compliance with the Building Code of Australia;
(c) Design compliance with the fire and life safety requirements of the Building Code of Australia; and

Class 2 Verification must be completed for:
(d) All other design packages not requiring a Class 1 Verification;
(e) Road Safety Audit for the Contractor's Activities;
(f) Durability Assessment Reports; and

A2  Additional information to be provided with the final Design Report (TSR T1 Clause 3.1(mm))

(g) the durability assessment report in accordance with section 2.9 of the Works Brief;
(h) the “effect of the Works” report in accordance with section 2.10 of the Works Brief;
(i) Instrumentation and Monitoring Report.

A3  Design Package Structure

The structure of the design packages should be agreed within 15 Business Days of the date of the Contract with the Principal's Representative. Splitting of packages should not occur without the approval of the Principal's Representative. Furthermore, the order of submission of the design packages should not change without the approval of the Principal's Representative.
ANNEXURE B – List of Reference Documents
List of Reference Documents

Building Code of Australia
Disability Discrimination Act 1992
Environmental Planning and Assessment Act 1979
Environmental Planning and Assessment Regulation 2000
TfNSW CAD Protocols (4TP-ST-084)
TfNSW Engineering Authority Application (EAA) (4TP-FT-143)
TfNSW Sustainable Design Guidelines (7TP-ST-114)
TfNSW Inspection and Test Plans – Minimum Requirements (4TP-ST-068)
RTA Technical Direction for Road Safety Practitioners (TD 2003/RS03)
RTA Guidelines for Road Safety Audit Practices
ANNEXURE C – Design Review Process for RailCorp Design Packages
Design Review Process for RailCorp Design Packages
Appendix A  Flowchart of processes at the feasibility and design stages

<table>
<thead>
<tr>
<th>RPM/M</th>
<th>Feasibility</th>
<th>Concept Design</th>
<th>Design and Planning</th>
<th>Detail Design</th>
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<tr>
<td>Stage</td>
<td>Design Stage</td>
<td>Concept Design Stage</td>
<td>Mark as Reference Design</td>
<td>Speciality Design Stage</td>
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<td>Primary Stakeholder Sign off</td>
<td>Stakeholder review</td>
<td>Stakeholder review</td>
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<td>RAILCORP Review of Concept Design</td>
<td>SDR</td>
<td>PDR</td>
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<td></td>
<td>CCR</td>
<td>SDR Comments Consultative Comments Register</td>
<td>PDR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CCR</td>
<td>AFC Design Acceptance</td>
<td>Technical Review</td>
</tr>
</tbody>
</table>

Legend:
- AFC: Approved For Construction
- CCB: Configuration Control Board
- CCR: Configuration Change Required
- PDM: Project Design Manager
- PDR: Preliminary Design Review
- PSD: Professional Services Division
- SDR: System Concept Review

Note 1: CCR line and design meeting must be signed with RailCorp prior to implementation.

Note 2: Additional feedback mechanisms through RailCorp."
### RailCorp Professional Services Division – Time Slots Planner

#### RailCorp Professional Services Division - Time Slots 2012 Half Yearly Planner

<table>
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<th>January-12</th>
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</table>

- **Public Holidays**: MPM
- **Capitol CTC**: Capitol CTC
- **Capital TCA**: Capital TCA
- **ARTC / Others**: ARTC / Others
- **N**: Close Down (Timeslots will not apply over Xmas period)

**Note**: This document is UNCONTROLLED WHEN PRINTED.
EXHIBIT B – WORKS BRIEF

The Works Brief comprises the document given in this Exhibit B and includes:

(a) the interface schedule given in Appendix A;
(b) the certification of works in progress listed in Appendix B;
(c) the drawings prepared by GHD and listed in Appendix C; and
(d) the technical specification prepared by GHD given in Appendix D.
Exhibit B – Works Brief

Transport Access Program
Cardiff Station Upgrade

Document Number: 1785468_5
Date of Issue: 21 May 2012
Revision: 05

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Appendix A Interface Schedule  
Appendix B Certification of Works In Progress Form  
Appendix C List of Drawings  
Appendix D Technical Specifications
1 Introduction

1.1 Purpose

This Works Brief sets out the scope, performance and technical criteria for the Contractor's Activities in delivery of Cardiff Station Upgrade. The Works must comply with the technical requirements of this Works Brief. The Works include, but are not limited to, construction, inspection, testing and commissioning, systems integration and handover.

The Works Brief comprises this document, including:

a) the interface schedule given in Appendix A
b) the Drawings prepared by GHD listed in Appendix C; and
c) the technical specifications prepared by GHD given in Appendix D.

1.2 Definitions

Unless the context otherwise provides:

a) the words and phrases used in the Works Brief have the meaning given to them in the General Conditions of Contract;
b) references to the Drawings are references to the drawings listed in Appendix C to this Works Brief;
c) references to standards are references to relevant RailCorp, Roads and Traffic Authority (RTA) or other standards referred to in the technical specification given in Appendix D; and
d) any reference in the Works Brief to "Contract Administrator" is to be read as "Principal's Representative".

1.3 Codes and Standards

The Works must, as a minimum, comply with all codes and standards required by the General Conditions of Contract and this Works Brief

2 The Site

Refer to Exhibit E - Contact Specific Requirements for details of the Site, including site compound, site access and controls, and Track Possessions.

3 The Works

3.1 Description

A general description of the Works is provided in the technical specification given in Appendix D.
3.2 Interface Works

The Interface Work includes, but is not limited to that described in Appendix A to this Works Brief.

3.3 Works not in the Contract

The following works are shown in the Drawings and Specifications but do not form part of the Contractor’s Activities:

a) supply, installation and removal of temporary scaffold stairs between upper accessway and council car park;
b) works by the “early civil works” Interface Contractor as given in the interface schedule in Appendix A;
c) supply and delivery to site of the precast concrete platform culverts;
d) supply, installation and commissioning of lift cars; and
e) works by RailCorp as given in the interface schedule in appendix A.

3.4 Principal Supplied Materials

The Principal will free-issue the precast concrete platform culverts to be manufactured and delivered by Obnova. The Contractor must coordinate the delivery of the culverts with the Principal’s Representative, and arrange for their temporary storage on the Site. The Contractor must inspect the culverts for any defects, and notify the Principal’s Representative of any defects found, immediately upon delivery.

3.5 Lifts

The Principal has entered into an agreement with Liftronic Pty Limited to manufacture, supply, install and commission the two lift cars for Cardiff Station.

The Contractor must co-ordinate his Contractor Activities to ensure that the necessary structure is available for Liftronic to enable Completion of the lifts as part of Portion 1.

3.6 Certification of Works in Progress

The Contractor must provide Certification of the Works in Progress on a monthly basis, or as otherwise agreed with the Principal’s Representative.

Certification of Works in Progress is to confirm the following:

a) The Works have been completed to date in accordance with the approved design, relevant Standards and procedures (including Project Work Interface Agreement (PWIA) and Configuration Management compliance) and/or Project Safety Agreement, where applicable;
b) Project deliverables are documented and monitored (including quality assurance documentation such as Inspection and Test Plans) as evidence. This evidence is to be referenced in Safety Assurance Statements and Safety Assurance Reports; and

c) Works have been performed by suitable and competent staff.

Certification is to be documented on the form “Certification of Works in Progress” given in Appendix B. Section one of the Certificate is to be completed by the Contractor.
APPENDIX A – INTERFACE SCHEDULE
<table>
<thead>
<tr>
<th>REF</th>
<th>SYSTEM</th>
<th>WORKS BY CONTRACTOR</th>
<th>WORKS BY INTERFACE CONTRACTOR</th>
<th>INTERFACE CONTRACTOR</th>
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<tbody>
<tr>
<td>1.1</td>
<td>High Voltage (HV): 11 kV Power Supply (Option 1)</td>
<td>Modification and commissioning of 11 kV power supply system from Poles FF74 to FF72.</td>
<td></td>
<td>RailCorp</td>
</tr>
<tr>
<td>2.1</td>
<td>Overhead Wiring (OHW): Support Structures</td>
<td>Survey completed works and update detail site survey. As part of Asset Management Information</td>
<td>Design and construct OHW support structures.</td>
<td>RailCorp</td>
</tr>
<tr>
<td>2.2</td>
<td>Overhead Wiring (OHW)</td>
<td>Survey completed works and update detail site survey. As part of Asset Management Information</td>
<td>Design and construction of OHW system including termination and Re-profiling</td>
<td>RailCorp</td>
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<tr>
<td>2.3</td>
<td>1500 Power Supply</td>
<td>Request Power Out Permits</td>
<td>Provide Power out Permits</td>
<td>RailCorp</td>
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**SIGNALING**

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<tr>
<td>4.1</td>
<td>Signaling Cables</td>
<td>Protect all signal cables during construction. Inform Interface Contractor when works will be within 3m of signaling cabling.</td>
<td>Provide signal support during works that will be within 3m of signal cables.</td>
<td>RailCorp</td>
</tr>
<tr>
<td>4.2</td>
<td>Signal Sighting SFS</td>
<td>The Contractor must incorporate the recommendations into the works</td>
<td>Interface Contractor will convene Signal Sighting Committee to consider and make recommendations on signals, EOLs, signage, warning lights, buffer stop lights, visual aids and guard indicators.</td>
<td>RailCorp</td>
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**COMMUNICATIONS BACKBONE**

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<tr>
<td>5.1</td>
<td>Power Supply for all Communications Systems</td>
<td>Installation and commissioning of power supply inclusive of UPS backup for all communications equipment inclusive of equipment provided by Interface Contractor</td>
<td>Provide details of power supply requirements inclusive of details of UPS back-up for equipment by Interface Contractor Final commission into use.</td>
<td>RailCorp</td>
</tr>
<tr>
<td>5.2</td>
<td>Communications Backbone</td>
<td>Construct all communications backbone fibre and copper cabling, cable containment systems and labelling. Terminate cabling at the field end and equipment distribution frames. Test all communications backbone cabling. Provide test records and as-built drawings. Install cabling connecting communications backbone distribution frames to active equipment. Supply and install communications backbone active equipment into equipment cabinets and racks. Co-ordinate with Interface Contractor for the termination and connection of all communications backbone cabling from distribution frames to active equipment.</td>
<td>Provide system design and equipment installation requirements Terminate cabling connecting Communications Backbone distribution frames to active equipment.</td>
<td>RailCorp</td>
</tr>
<tr>
<td>5.3</td>
<td>Communications Backbone</td>
<td>Construct communications backbone equipment cabinets, racks and patch panels. Participate in testing and commissioning of the communications backbone system with Interface Contractor.</td>
<td>Test, commission and integrate communications backbone equipment into the existing network. Allocate data addresses. Reprogram off-site equipment.</td>
<td>RailCorp</td>
</tr>
<tr>
<td>5.4</td>
<td>Communications Backbone</td>
<td>Install communications backbone cabling support systems in accordance with the specifications received from Interface Contractor</td>
<td>Test, commission and integrate communications backbone equipment into the existing network. Allocate data addresses. Reprogram off-site equipment.</td>
<td>RailCorp</td>
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LANS: RAILCORP / SECURITY / SPI / TICKETING
<table>
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<th>WORKS BY CONTRACTOR</th>
<th>WORKS BY INTERFACE CONTRACTOR</th>
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<tr>
<td>6.1</td>
<td>LANs: RailCorp/SPI/Ticketing &amp; Security</td>
<td>Construct all LANs cable containment systems and labelling. Terminate cabling at the field end and equipment distribution frames. Relocate hardware for use within temporary facilities during construction works as required. Install cabling connecting distribution frames to active equipment. Test all LANs cabling. Provide test records and as-built drawings. Co-ordinate with Interface Contractor for the termination and connection from distribution frames to active equipment.</td>
<td>Provide system design and equipment installation requirements Supply and install active equipment into equipment cabinets and racks.</td>
<td>RailCorp</td>
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<tr>
<td>6.2</td>
<td>LANs: RailCorp/SPI/Ticketing &amp; Security</td>
<td>Construct equipment cabinets, racks and patch panels. Participate in testing and commissioning of the systems with Interface Contractor.</td>
<td>Test, commission and integrate equipment into the existing network. Allocate data addresses. Reprogram off-site equipment.</td>
<td>RailCorp</td>
</tr>
<tr>
<td>RAILCORP; X-RING &amp; SIGNAL PHONES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.1</td>
<td>Telecommunications</td>
<td>Install all telephone cabling including cable containment systems, wall plates and terminations, MDFs, IDF s to cater for the phones. Install the telephone handsets Testing of all cable and telecommunications infrastructure installation. Assist in testing of the telephone systems during integration with the existing networks</td>
<td>Allocate extension numbers. Reprogram the off-site RailCorp PABX. Upgrade of Telephony backbone to accommodate the new phones. Commission the phones in conjunction with the Contractor. Certification of all cabling and telecom infrastructure installation.</td>
<td>RailCorp</td>
</tr>
<tr>
<td>PASSENGER INFORMATION (SPI)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Public Address Incl. LLPA & DVA

<table>
<thead>
<tr>
<th>REF</th>
<th>SYSTEM</th>
<th>Works by Contractor</th>
<th>Works by Interface Contractor</th>
<th>Interface Contractor</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1</td>
<td>Digital Voice Annunciation</td>
<td>Supply, install and commission digital Public Address (PA) system inclusive of all</td>
<td>Connect DVA system to PA and test.</td>
<td>RailCorp</td>
</tr>
<tr>
<td></td>
<td>(DVA)</td>
<td>speakers</td>
<td>Configure and commission the DVA system to include GRL PA zones.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Provide PA system interface to Digital Voice Annunciation (DVA)</td>
<td>Integrate with the existing network.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Provide rack space and power supply to DVA</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supply rack mounted DVA equipment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supply, install and test all DVA cabling</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participate in DVA commissioning by Interface Contractor</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Precise Clocks

<table>
<thead>
<tr>
<th>REF</th>
<th>SYSTEM</th>
<th>Works by Contractor</th>
<th>Works by Interface Contractor</th>
<th>Interface Contractor</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1</td>
<td>Precise Clocks</td>
<td>Supply, install and commission IP based Precise Clocks system</td>
<td>Test, commission and integrate Precise Clocks system into the existing network.</td>
<td>RailCorp</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assist Interface Contractor in connection of the system to SPI network and testing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## CCTV & Help Points

<table>
<thead>
<tr>
<th>REF</th>
<th>SYSTEM</th>
<th>Works by Contractor</th>
<th>Works by Interface Contractor</th>
<th>Interface Contractor</th>
</tr>
</thead>
</table>

**Note:** The table above outlines the works to be performed by both the contractor and the interface contractor, along with the associated tasks and responsibilities for each component (Passenger Information System, Public Address System, Precise Clocks, etc.).
<table>
<thead>
<tr>
<th>REF</th>
<th>SYSTEM</th>
<th>WORKS BY CONTRACTOR</th>
<th>WORKS BY INTERFACE CONTRACTOR</th>
<th>INTERFACE CONTRACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.1</td>
<td>CCTV &amp; Help Points</td>
<td>Coordinate with the Works</td>
<td>Provide Security Risk Assessment and design camera coverage and layouts. Design to be carried out by licensed security consultant, Class 2A (as per Security Industry Act 1997).</td>
<td>RailCorp (ADT)</td>
</tr>
<tr>
<td>11.2</td>
<td>CCTV &amp; Help Points</td>
<td>Construct CCTV camera mounting brackets and arrangements inclusive of poles. Construct Help Point locations and mounting arrangements</td>
<td>Provide equipment installation specifications and system design. Supply, install, test and commission CCTV cameras and active equipment. Supply, install, test and commission Help Point equipment.</td>
<td>RailCorp (ADT)</td>
</tr>
<tr>
<td>11.3</td>
<td>CCTV &amp; Help Points</td>
<td>Install and commission all CCTV camera and Help Point cabling, cable containment systems and labelling. Test all CCTV and Help Point cabling. Provide test records and as-built drawings.</td>
<td>Witness testing of all CCTV and HP cabling. Terminate and connect all CCTV and Help Points field and rack mounted equipment cabling.</td>
<td>RailCorp (ADT)</td>
</tr>
<tr>
<td>11.4</td>
<td>CCTV &amp; Help Points</td>
<td>Construct CCTV and Help Point equipment cabinets, racks and patch panels. Participate in testing and commissioning CCTV and Help Point system. Supply and install air conditioning in rooms where racks are housed.</td>
<td>Design CCTV and Help Point equipment cabinets, racks and patch panels. Supply and install equipment into equipment cabinets and racks. Test, commission and integrate CCTV and Help Point equipment into the existing network.</td>
<td>RailCorp (ADT)</td>
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</tbody>
</table>

**INTRUDER DETECTION SYSTEM**

<table>
<thead>
<tr>
<th>REF</th>
<th>SYSTEM</th>
<th>WORKS BY CONTRACTOR</th>
<th>WORKS BY INTERFACE CONTRACTOR</th>
<th>INTERFACE CONTRACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.1</td>
<td>Intruder Detection System</td>
<td>Installation and commissioning of the system including remote monitoring dial-out.</td>
<td>Design and verify remote monitoring of the Intruder Detection System. Integrate with the existing network</td>
<td>RailCorp (Alarm Zone)</td>
</tr>
</tbody>
</table>

**ELECTRONIC ACCESS SYSTEM**

<table>
<thead>
<tr>
<th>REF</th>
<th>SYSTEM</th>
<th>WORKS BY CONTRACTOR</th>
<th>WORKS BY INTERFACE CONTRACTOR</th>
<th>INTERFACE CONTRACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.1</td>
<td>Electronic Access System</td>
<td>Coordinate with the Works</td>
<td>Provide Security Risk Assessment and design layouts, installation and commissioning of the system (MLACK, Remote Access etc). Provide design inputs / specific requirements</td>
<td>RailCorp</td>
</tr>
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</table>
### FIRE DETECTION SYSTEM

<table>
<thead>
<tr>
<th>REF</th>
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<th>WORKS BY INTERFACE CONTRACTOR</th>
<th>INTERFACE CONTRACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>Fire Detection System</td>
<td>Installation and commissioning of the system including 'fire alarm' dial-out.</td>
<td>Nominate service provider for receipt and response to 'fire alarm' dial-out.</td>
<td>RailCorp</td>
</tr>
</tbody>
</table>

### TICKETING SYSTEM

<table>
<thead>
<tr>
<th>REF</th>
<th>SYSTEM</th>
<th>WORKS BY CONTRACTOR</th>
<th>INTERFACE CONTRACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.1</td>
<td>Ticketing Systems: Legacy System &amp; Electronic Ticketing System</td>
<td>Construct foundations, plinths, brackets and holding down bolts for ticketing equipment including ticket vending machines, and ticket/card readers.</td>
<td>RailCorp</td>
</tr>
<tr>
<td>15.2</td>
<td>Ticketing Systems: Legacy System &amp; Electronic Ticketing System</td>
<td>Construct all ticketing system cabling, cable containment systems and labelling. Test all ticketing system cabling. Provide test records and as-built drawings.</td>
<td>RailCorp</td>
</tr>
<tr>
<td>15.3</td>
<td>Ticketing Systems: Legacy System &amp; Electronic Ticketing System</td>
<td>Test, commission and integrate ticketing equipment into the existing network. Construct ticketing network equipment cabinets, racks and patch panel. Participate in testing and commissioning ticketing system. Relocate existing ticketing network equipment in temporary booking office into equipment cabinets and racks of new booking office</td>
<td>RailCorp</td>
</tr>
</tbody>
</table>

### TRAIN LOCATION SYSTEM
### BUILDING WORKS

<table>
<thead>
<tr>
<th>REF</th>
<th>SYSTEM</th>
<th>WORKS BY CONTRACTOR</th>
<th>WORKS BY INTERFACE CONTRACTOR</th>
<th>INTERFACE CONTRACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.1</td>
<td>Train Location System</td>
<td>Construct all LANs cable, containment systems and labelling. Terminate cabling at the field end and equipment distribution frames. Test all LANs cabling. Provide test records and as-built drawings. Assist in System testing by Interface Contractor.</td>
<td>Supply and install active equipment Test the System and integrate with the existing network</td>
<td>RailCorp</td>
</tr>
</tbody>
</table>
| 19.1| Early Civil Works | Inspect and accept Interface Works prior to commencement of the Works and notify the Principal's Representative of any unacceptable work | The following works generally as indicated on the Drawings:  
- Establishing a worksite for the purpose of constructing the early civil works. Hoardings to remain in place for use and removal by the Contractor.  
- Removal of four existing trees including stumps in lower car park area  
- Demolition of existing concrete stairs between upper accessway and lower carpark and disposal of waste  
- Demolition of existing crib wall to lower car park area and disposal of waste  
- Excavation for new stairs and lift 1, including any temporary retaining structures and disposal of all waste  
- Construction of new relocated sewer section, including new maintenance holes, decommissioning and removal of redundant sewer section and reinstating carpark surface  
- Construction of reinforced concrete retaining walls around new stairs and lift 1 to height of upper accessway, including waterproofing/tanking, subsoil drainage and starter bars for higher walls  
- Reconstruction of crib walls at junction to new RC walls  
- Construction of new stormwater drainage at each end of new lift 1 and stairs structure between upper | Gartner Rose |
<table>
<thead>
<tr>
<th>REF</th>
<th>SYSTEM</th>
<th>WORKS BY CONTRACTOR</th>
<th>WORKS BY INTERFACE CONTRACTOR</th>
<th>INTERFACE CONTRACTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>accessway and lower carpark, including new pits</td>
<td>• Construction of reinforced concrete ground slab at lower carpark level</td>
<td>Liftronic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Construction of reinforced concrete walls to lift 1 and stairs to height of upper</td>
<td>• Construction of piles to support new lift 1 and stairs structure</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>accessway, including starter bars for higher walls</td>
<td>• Construction of piles and ground beam (FB1) to support new column to extended footbridge</td>
<td></td>
</tr>
<tr>
<td>19.2</td>
<td>Lifts</td>
<td>Coordinate with Liftronic as an Interface Contractor</td>
<td>Supply, install and commission the lifts</td>
<td></td>
</tr>
<tr>
<td>19.3</td>
<td>Precast Culverts for Platform</td>
<td>Coordinate delivery to and arrange temporary storage on the Site until required for</td>
<td>Manufacture and deliver to site</td>
<td>Obnova</td>
</tr>
<tr>
<td></td>
<td>Extensions</td>
<td>the Works</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>GENERAL REQUIREMENTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interface Related Meetings</td>
<td>The Contractor is required to attend meetings/workshops to manage and coordinate</td>
<td>The Contractor is required to provide means of receiving, storing and protecting goods and</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>interface elements, scope, works, installation, commissioning and documentation</td>
<td>equipment supplied by Interface Contractor, e.g. Ticketing Equipment, CCTV, SPI, etc.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>requirements until Completion</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Receiving Interface Contract</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>or Goods</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX B – CERTIFICATION OF WORKS IN PROGRESS
# Monthly Certificate for Works in Progress

**Form No.: 4TP-FT-125**

## Certification for Works in Progress – Compliance & Exception Summary

### SECTION 1

<table>
<thead>
<tr>
<th>Project Details</th>
<th>TPD Program (eg Clearways)</th>
<th>Month/Year of Certification</th>
</tr>
</thead>
</table>

Compliance and/or Exception List. List each project/program carried out during certification month and insert Y or N under the compliance or exception column to indicate compliance or non-compliance as applicable. For any non-compliance, provide details of any exception(s) and the applicable risk mitigation in place to control the non-compliance: (Enter a separate line for each exception).

Controls:
1. Work is in accordance with relevant Standards and Procedures – including design and configuration changes approved; and interfaces with asset owner are identified and managed.
2. Project Deliverables are identified and monitored (QA’s/TP’s in place).
3. Works are performed by suitably accredited & competent staff.
4. Infrastructure is certified at staged completion of Works by the Contractor.
5. At project completion there is an agreed process to finalise work, record any defects and handover completed work to Asset Owner.

<table>
<thead>
<tr>
<th>Project Number / Company Name</th>
<th>Project Name</th>
<th>Compiles (Y/N)</th>
<th>Exception (Y/N)</th>
<th>Description of non compliance</th>
<th>Risk mitigation measure in place</th>
</tr>
</thead>
</table>

Certification by Contractor/Alliance: I certify for the work and activities under the contract that operational and system safety is being managed in accordance with the listed controls except where identified above.

<table>
<thead>
<tr>
<th>Name:</th>
<th>Position:</th>
<th>Company:</th>
<th>Signature:</th>
<th>Date:</th>
</tr>
</thead>
</table>

---

Certification of Works in Progress

4TP-FT-125/1.0
Certification by Designer/Alliance Engineering Manager: I certify that based on my review of the relevant design plans, observations of the relevant construction work by myself or my staff on the dates listed and my discussion with relevant staff, that the methodology that has been used to carry out the Work is in accordance with the design and with any instructions given to relevant staff to ensure that potential risks arising from any design issues have been eliminated or controlled. Where I have identified any deviation from the design or from any instructions given, I have provided such additional information to relevant staff as necessary to ensure that potential risks arising from the design have been eliminated or controlled.

<table>
<thead>
<tr>
<th>Name:</th>
<th>Position:</th>
<th>Company:</th>
<th>Signature:</th>
<th>Date:</th>
</tr>
</thead>
</table>

SECTON 2

Certification by Projects Division Senior Project Manager / Project Manager/Senior Technical Manager/ Projects Division Technical Manager: Based on my information and belief and the personal activities listed and following inquires made with the Contractor, I certify that:

The Projects Division approved process has been followed to confirm the level of compliance to relevant standards, and where infrastructure is not being managed in accordance with these standards I am satisfied that appropriate risk mitigation measures have been implemented as identified above.

<table>
<thead>
<tr>
<th>Name:</th>
<th>Projects Division Position:</th>
<th>Signature:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>Projects Division Position:</td>
<td>Signature:</td>
<td>Date:</td>
</tr>
<tr>
<td>Name:</td>
<td>Projects Division Position:</td>
<td>Signature:</td>
<td>Date:</td>
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<tr>
<td>Name:</td>
<td>Projects Division Position:</td>
<td>Signature:</td>
<td>Date:</td>
</tr>
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</table>
APPENDIX C - LIST OF DRAWINGS
<table>
<thead>
<tr>
<th>DRG No.</th>
<th>DRAWING TITLE</th>
<th>REV</th>
</tr>
</thead>
<tbody>
<tr>
<td>CV0420725</td>
<td>LOCATION PLAN &amp; DRAWING LIST</td>
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</tr>
<tr>
<td>CV0420726</td>
<td>DEMOLITION PLAN &amp; EXISTING SITE PLAN</td>
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</tr>
<tr>
<td>CV0420727</td>
<td>SITE PLAN</td>
<td>A003</td>
</tr>
<tr>
<td>CV0420728</td>
<td>LOWER CAR PARK LEVEL PLAN</td>
<td>A101</td>
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<tr>
<td>CV0420729</td>
<td>UPPER ACCESSWAY LEVEL PLAN</td>
<td>A102</td>
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<tr>
<td>CV0420730</td>
<td>FOOTBRIDGE LEVEL PLAN</td>
<td>A103</td>
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<td>ELEVATIONS</td>
<td>A401</td>
</tr>
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<td>CV0420732</td>
<td>SECTIONS SHEET 1 OF 2</td>
<td>A451</td>
</tr>
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<td>CV0420733</td>
<td>SECTIONS SHEET 2 OF 2</td>
<td>A452</td>
</tr>
<tr>
<td>CV0420734</td>
<td>MAIN ROAD ACCESS TO FOOTBRIDGE PLAN DETAIL AND SECTIONS</td>
<td>A601</td>
</tr>
<tr>
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<td>ANTI-THROW SCREEN AND RAILING SETOUT</td>
<td>A602</td>
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<td>STAIR PLAN &amp; SECTIONS</td>
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<td>PLATFORM LEVEL SECTIONS</td>
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<td>BALUSTRADE , HANDRAIL AND STEEL STAIR DETAILS</td>
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<td>WINDOW, DOOR &amp; LOUVRE SCHEDULE</td>
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<td>WALL CLADDING SETOUTS LIFT - SHEET 1 OF 2</td>
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<td>WALL CLADDING SETOUTS PLATFORM BUILDING - SHEET 2 OF 2</td>
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<td>CV0420750</td>
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<td>A104</td>
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<td>NEW STATION BUILDING REFLECTED CEILING PLAN</td>
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<td>PILE AND FOOTING DETAILS</td>
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<td>PLATFORM EXTENSION SLAB PLANS</td>
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<td>ACCESSWAY REINFORCEMENT PLANS</td>
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<td>ACCESSWAY CONCRETE DETAILS - SHEET 1</td>
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* USES TAMPER RESISTANT FIXINGS FOR ALL EXPOSED CONNECTIONS

NOTE:
1. FOR EASY ACCESS UPGRADING STRUCTURAL ADAPTED SHEET DETAILS.
2. FOR OPTIONS & ALLOWS TO DEEM IN BILL OF QUANTITIES.
NOTES:

1. FOR POINT OF CONNECTION COORDINATES WITH EXISTING POWER AND GROUNDING. ALL NEW MOUNTINGS MUST BE PERFORMED FROM THE EXISTING MAIN.

2. CHECK FOR CONFORMITY WITH EXISTING POWER AND GROUNDING. ALL NEW MOUNTINGS MUST BE PERFORMED FROM THE EXISTING MAIN.

3. COMPARE THE LOCATION OF ALL UNDERGROUND LINES WITH EXISTING SERVICES TO AVOID ACCIDENTS.

4. ALL EXISTING DUCTS SHOULD BE DETAILED FOR LOCATION.

5. COMPARE THE LOCATION OF ALL UNDERGROUND LINES WITH EXISTING SERVICES TO AVOID ACCIDENTS.

6. INSTALL EXISTING MAINS INSIDE THE EXISTING DUCTS TO BE FULLY IN COMPLIANCE WITH THE EXISTING MAIN.

7. REALIGN THE DUCTS AND LINES TO BE FULLY IN COMPLIANCE WITH THE EXISTING MAIN.

8. PROVIDE NEW REO FOR EXISTING MAINS INSIDE THE EXISTING DUCTS TO BE FULLY IN COMPLIANCE WITH THE EXISTING MAIN.

9. INSTALL NEW REO FOR EXISTING MAINS INSIDE THE EXISTING DUCTS TO BE FULLY IN COMPLIANCE WITH THE EXISTING MAIN.

10. INSTALL NEW REO FOR EXISTING MAINS INSIDE THE EXISTING DUCTS TO BE FULLY IN COMPLIANCE WITH THE EXISTING MAIN.

11. INSTALL NEW REO FOR EXISTING MAINS INSIDE THE EXISTING DUCTS TO BE FULLY IN COMPLIANCE WITH THE EXISTING MAIN.

12. INSTALL NEW REO FOR EXISTING MAINS INSIDE THE EXISTING DUCTS TO BE FULLY IN COMPLIANCE WITH THE EXISTING MAIN.

13. INSTALL NEW REO FOR EXISTING MAINS INSIDE THE EXISTING DUCTS TO BE FULLY IN COMPLIANCE WITH THE EXISTING MAIN.

14. INSTALL NEW REO FOR EXISTING MAINS INSIDE THE EXISTING DUCTS TO BE FULLY IN COMPLIANCE WITH THE EXISTING MAIN.

15. INSTALL NEW REO FOR EXISTING MAINS INSIDE THE EXISTING DUCTS TO BE FULLY IN COMPLIANCE WITH THE EXISTING MAIN.

16. INSTALL NEW REO FOR EXISTING MAINS INSIDE THE EXISTING DUCTS TO BE FULLY IN COMPLIANCE WITH THE EXISTING MAIN.

17. INSTALL NEW REO FOR EXISTING MAINS INSIDE THE EXISTING DUCTS TO BE FULLY IN COMPLIANCE WITH THE EXISTING MAIN.

18. INSTALL NEW REO FOR EXISTING MAINS INSIDE THE EXISTING DUCTS TO BE FULLY IN COMPLIANCE WITH THE EXISTING MAIN.
NOTES:
1. REFER TO EL 31 AND ARCHITECTURAL DRAWINGS FOR SET-OUT DEEMERIT. FILL POSITION OF ALL EQUIPMENT TO BE DETERMINED ON SITE PRIOR TO INSTALLATION
2. PROVIDE CAST IN CONCRETE AND FIXTURE BASES FOR MOUNTING FOR ALL EXTERNAL LIGHTING.
3. THE EXISTING DEDICATED LIGHT FITTINGS ON THE FIRST BAY ARE TO BE DEMOLISHED.
4. ALL INTERNAL LIGHTING MASTS SHALL BE COMPLETE TO WALLS (MACHINED FLANGE) PRIOR TO THE EXTERNAL BRACKET MOUNTS BEING FIXED TO DETAILS.
5. SEAL ALL EXPANDS TO PREVENT INGRESS OF SMOKE
6. LIGHT FITTING AND POST SHALL BE INDICATED FROM THE EXTRACT 1 TEMPORARY WORK.

BRIDGE LEVEL
LIGHTING LAYOUT 1 OF 2
SCALE 1:100

BRIDGE LEVEL
LIGHTING LAYOUT 2 OF 2
SCALE 1:100

TO SYDNEY

TO KOTARA
SECURITY ACCESS CONNECTION BLOCK DIAGRAM

SECURITY CCTV CONNECTION BLOCK DIAGRAM

PUBLIC ADDRESS + HEARING INDUCTION LOOP CONNECTION BLOCK DIAGRAM

NOTES:
1. THIS DRAWING IS NOT AN ELECTRICAL SCHEMATIC OR INSTALLATION OUTLINE.
2. ALL ELECTRICAL CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH THE LOCAL ELECTRICAL CODE.
3. ALL TERMINATIONS OF CABLES SHALL BE MADE IN ACCORDANCE WITH THE LOCAL ELECTRICAL CODE.
4. THIS DRAWING IS INTENDED TO PROVIDE A VISUAL REPRESENTATION OF THE SYSTEM CONFIGURATION AND NOT AS A SUBSTITUTE FOR THE LOCAL ELECTRICAL CODE.
5. THIS DRAWING IS INTENDED TO PROVIDE A VISUAL REPRESENTATION OF THE SYSTEM CONFIGURATION AND NOT AS A SUBSTITUTE FOR THE LOCAL ELECTRICAL CODE.

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PLATFORUM LIGHTING AND SECURITY LAYOUT

SCALE 1:100

NOTES:
1. Refer to drawing No. 12, Section A, for general notes.
2. ELECTRICAL AND MECHANICAL SERVICES LAYERS
   MUST CONNECT TO LAYERS AND DISTRIBUTION DUCTS SAME AS CONNECTED TO
   NEW DISTRIBUTION DUCTS BUT MUST CONFORM TO NEW DISTRIBUTION DUCTS
   AND CONNECTED TO NEW DISTRIBUTION DUCTS.

TO SYDNEY ←

TO KOTARA →

PLATFORM LIGHTING AND SECURITY LAYOUT

SCALE 1:100

TENDER

CARDIFF STATION
MAINLINE LINE 100 TO 150 UP & DOWN RAIL EASY ACCESS UPGRADE
ELECTRICAL LIGHTING AND SECURITY UPGRADE

FILE No. EL249824

[Diagram of platform lighting and security layout with notes and scale]
PLATFORM LIGHTING AND SECURITY LAYOUT
SCALE 1:100

TO SYDNEY

TO KOTARA

NOTES:
1. REFER TO DRAWING No. 5, GLASS FOR GENERAL NOTES
2. DETAILS OF EXISTING ILLUM. AND RELATE NEW
   POLES TO LIGHTING ON THIS DRAWING

TENDER

CARDFISH STATION
MASTER PLANS/31.13/01/09/00/A
 автомобильных дорог

REFERENCE DRAWINGS

Tender No.
RicaCorp
Design Incorporated in tender
Tender No.
E104202/05

Scale 1:100

บัตรไวไฟพอร์ด

NOTE: MECHANICAL EQUIPMENT ON THIS DRAWING DO NOT DENOTE ACCEPTANCE OF
INSTRUCTIONS FOR THE DESIGN

REVISIONS/INSTRUCTIONS AND DIMENSIONAL ACCURACY OF THE DRAWING
BEARING WITH THE HIGHLANDS AGENCY.
**CABLE SCHEDULE**

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By others: [Signature]

The above drawing does not mean adherence to the specification of the tender documents. The dimensions and details are subject to change as per the tender requirement.